

The Impact of Past Events on Current Electoral Behaviour. Age-Period-Cohort Analysis of Czech Communist Party Voters

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Abstract:

The paper analyses the effect of political generations on current Czech Communist Party (KSČM) voter support. The goal is to show that past events have had an effect on current electoral behaviour without having to be reproduced in time and strengthened through repeated voting in competitive elections. The findings regarding the various generation effects on KSČM support confirm this goal. KSČM support is largely affected by (1.) the Second World War and the subsequent communist coup, (2.) the military invasion of Warsaw Pact armies under the leadership of the Soviet Union in 1968 and (3.) the transition to democracy in 1989. These events classify Czech society into four basic generations in which cohort effects on KSČM support differ when controlling for period and age effects.

Paper prepared for presentation at WPSA, Hollywood, LA, March, 2013

Almost all communist successor parties transformed and adapted to the new political environment (Grzymala-Busse 2002). However, the Communist Party of Bohemia and Moravia (KSČM) stands out as an outlier as this party underwent minimal ideological transformation. The endurance of the Communist Party of Bohemia and Moravia (KSČM) as an unreformed communist party and its electoral support between 10 to 20 percent in national elections is in the post-communist context puzzling. All explanations of its voter support are based on the class voting (Matějů, Vlachová et al. 2000; Tworzecki 2003) or economic voting (Tucker 2006; Stegmaier, Vlachová 2009) argument. However plausible these explanations might be, I consider them as only one part of the story. Given the strong party identification of the KSČM voters and almost non-existent party-switching among its voters, there has to be some other stabilizing factor behind its endurance. In this paper I present an alternative, but complementary explanation of KSČM party support based on the idea of political generations socialized in specific contexts.

The influence of political generations on electoral behavior has been demonstrated only in some political systems. For example, in the US the 1930s economic crisis has been shown to have had an influence on the greater electoral support for the Democratic Party among groups that came of age at the time of the crisis (Campbell et al. 1960; Elder 1974). Similarly, it has been shown that socialization of women at a time when they did not have the franchise resulted in those women's lower electoral participation (Firebaugh, Chen 1995). In Europe a similar effect has been shown of the economic crisis on higher support for the traditional social-democratic parties in Sweden and the United Kingdom (Knutsen 2003; Butler, Stokes 1969). Moreover, generations socialized in the 1960s have been shown to demonstrate greater support for new politics parties such as the Green Party in Germany (Goerres 2008).

What is typical of these studies is that the effect of an event on electoral behaviour of a political generation is observable immediately after the given event. In the case of groups of individuals who were politically socialised at the time of a given event, the effect of the event was observable from the moment when such generations could vote; moreover, this effect was reproduced in later years. Therefore, groups that started voting at the time of the economic crisis, voted more often for the Democrats (the Labour Party or social democratic parties more generally) since the crisis. Similarly, women socialised after the franchise was extended to them voted more often immediately after this change occurred. It is, however, possible to imagine a different situation when events have an impact on electoral behaviour with a certain delay, for example, 20 or 40 years later.

In this text I will present the case of the Communist Party of Bohemia and Moravia (KSČM) whose voter support in terms of the age structure was considerably influenced by the events like Second World War and the 1968 invasion of the Warsaw Pact armies under the Soviet leadership and by the general context of socialization in different political regimes. These events and contexts could not have had any effect on electoral behaviour directly because at the time of the communist regime elections were not competitive and citizens were obliged to vote for a pre-arranged single candidate list of the National Front. The effect of these events could not have been reproduced and reinforced with repeated voter behaviour and with mobilisations during the election campaign; it could have been reproduced, though, in the

form of values and ties to the political regime, its ideology and the dominant party. I will demonstrate the influence of past events on the formation of political generations with major KSČM voter support using cohort analysis. The example of KSČM voter support is unique in this sense, and will help to expand theoretical knowledge about the delayed effects of political socialisation on electoral behaviour and the existence and role of party identification at the time when the party system was formed in early 1990's.

In my paper I will first introduce KSČM, its history, programme and voter support over time. In doing this, I will emphasise findings related to the development of the party and its membership, and will mention events which may have had a major influence on the formation of political generations (Mannheim 1952). Then I will outline main findings of electoral research concerning the effect of age, and time more generally, on electoral behaviour. I will use those to form basic hypotheses about the influence of political generations on KSČM voter support. In the third part I will describe the analytical strategy, data and variables. To be concrete, I will introduce the hierarchical age-period-cohort model which will be used for modelling the net influence of these effects on KSČM voter support. Then, I will present the results of my analyses and will discuss them in the context of the historical development of KSČM and events that may have resulted in certain age cohorts supporting this party in greater numbers.

1. KSČM – history, ideology and voter support

KSČM was formally established in 1990 as a territorial organisation of the Communist Party of Czechoslovakia (KSČ); nevertheless, as the relations between Czech and Slovak communists were becoming looser, it established itself at the end of 1990 as an independent party active in the territory of the Czech Republic. KSČ was organisationally present in the territory of Czechoslovakia without interruption since 1921, with the exception of the Second World War when it was banned. After the renewal of the democratic regime in Czechoslovakia in 1989 the party spanned a history of almost seventy years; between 1948 and 1989 the party embodied the undemocratic, communist regime and controlled life in the country.

1.1. KSČM history and ideology

KSČ was established in 1921 when it broke away from the Social Democratic Party. Shortly afterwards the party cleaved more closely to the Comintern and launched the 'bolshevisation' process which peaked with the party takeover by Klement Gottwald. Although its voter support in the inter-war period was over 10 percent, the party never took part in the government; the reason was its anti-system orientation. It was a worldview party which organised the class-defined part of the proletariat subculture. At the beginning the party membership was high at 350,000 because a part of the Social Democratic Party joined KSČ. Gradually, though, the number of party members fell to 100,000, and after the purges related to the bolshevisation process the membership fell under 50,000. After the Munich Agreement

was signed and political pluralism was restricted, KSČ was banned in 1938; the party worked illegally and abroad, especially in the Soviet Union.

After the Second World War KSČ renewed its activities and its prestige and support was high in society. KSČ managed to become an important actor in the process of state recovery and formation of its character. The reason for this was that communists took part in the resistance, the party was legitimated through its link to the Soviet Union and generally because it lost the label of an anti-system party; it also helped that the party presented itself as a national party (the party adopted as its programme the programme of the Czechoslovak government of the National Front), the general leaning of society to the socialism as well as the restricted political competition of four parties in the territory of Bohemia and Moravia. In addition to the election gains of more than 40 percent in the 1946 elections, the party support can be also gleaned from the high number of members which at this time exceeded one million, approximately 15 percent of the country's population over 18.

After the forcible coup in 1948 KSČ was in a position of a hegemonic party accompanied with two satellite parties. The party penetrated into the institutional structure of the state and with its help controlled society (Fiala et al. 1999). In the 1950s the party worked to achieve an orthodox implementation of Marxism-Leninism, which was linked to the ethos of reconstructing the country destroyed in the war and preparations to achieve communism. In the second half of the 1950s the commenced phase of de-Stalinisation gradually transformed into the loosening of the political situation in the 1960s. This processes peaked with the 1968 Prague Spring the goal of which was limited democratisation of the regime; the Prague Spring was terminated with the invasion of the Warsaw Pact armies under the leadership of the Soviet Union. Gradually, all the reforms were abolished, liberal party members were expelled and police repression tightened. The subsequent twenty years of 'normalisation' were regarded by a large part of the population with scepticism related to the building of communism and anti-Russian sentiments.

In view of the fact that support for the communist regime cannot be deduced from election results while the communist regime is in power, party membership is a partial indicator of such support. After the 1948 coup the number of members grew from one million to almost 2.5 million members, with a forced merger with the Social Democratic Party helping this increase. Gradually, the number of members fell and oscillated around 1.5 million. The greatest drop occurred after the purges followed by the suppression of the 1968 Prague Spring when the number of members fell by approximately half a million to 1.2 million members. This number slightly increased before the fall of the regime and reached approximately 1.5 million members (Fiala et al. 1999; Maňák 1997).

With the change of the political regime in 1989 communists tried to ensure their future position in the expected plural system. The only threat – apart from losing voter support – was radical de-communisation consisting in the criminalisation of communism or at least in the abolishment of the party. Anti-communism awoke quite quickly in Czechoslovak society; nevertheless, the basic mechanism of de-communisation such as co-optation (and subsequent free elections) had to agree with KSČ in a way because it protected the party against a ban or abolishment. Bearers of the compromise negotiated at the round table also kept a protective

hand over the party (Suk 2003: 380–400). Demands for the party ban or abolishment appeared very often especially in spring 1990; nevertheless the new political elites systematically rejected these demands.

Thanks to thirteen-percent result in the 1990 elections, the communist party managed to establish itself in the Czech party system. Although KSČM did try to reform or ‘social-democratise’ itself in the first several years after the change of the regime, no major changes occurred (Mareš 2005, 2008; Fiala et al. 2004). On the one hand, the party professed political pluralism, democracy and human rights; in terms of its programme in the 1990s it advanced socialism and later only prosperous and socially just society, it condemned the deformations of Marxism and distanced itself from the Stalinist political party model. On the other hand, it retained its original name and did not distance itself completely from its past. Therefore, it is classified in specialised literature as a less reformed, neo/communist party (Fiala et al. 1999; Ishiyama, Bozóki 2001; Hanley 2002; March, Mudde 2005). Such an evaluation is not usually based on the programme goals presented in official documents but rather on historical experience, the unchanged name of the party or a lack of confidence in the party and its representatives. Labelling KSČM as an unreformed party is also part of party competition and political discourse which makes it possible to restrict the coalition potential of the left-of-centre Czech Social Democratic Party.

1.2. Structure and development of KSČM voter support

KSČM voters have long been predominantly male and from lower social classes, less educated, tending to inhabit rural areas and smaller towns. At the same time, KSČM voters are significantly more concentrated among older generations and pensioners (Matějů, Vlachová et al. 2000). The basis for KSČM voter support in these groups is the positive assessment of the communist regime coupled with a high level of dissatisfaction with politics and illegitimacy of the democratic regime (Linek 2010). In this sense by representing individuals who feel to be excluded from the political system, KSČM plays the ‘tribune function’ in the political system (see Lavau 1969; according to Novák 1995: 306, Kubát 2003: 97–98). Geographically, KSČM support is relatively equally distributed; nevertheless, it is more concentrated in the Sudeten region when controlling for socio-economic variables such as percentage of entrepreneurs or the unemployment rate (Kouba 2007: 1030). Until the end of the Second World War the Sudeten region was predominantly inhabited by German population who were forcibly expelled after the war and were replaced by population coming from other regions of the country.

KSČM voters also have strong attachment to the party; KSČM voters identify with their party to an even greater extent than voters of other Czech parties (Linek, Lyons 2007; Vlachová 2001). A high degree of identification can also be gleaned from KSČM having the greatest proportion of voters among all Czech parties who repeatedly vote for it in the elections. According to exit poll surveys, more than 80 % of voters who had voted for the party in previous national elections declare support for KSČM in current national elections (Linek 2008). The strong voter attachment to KSČM show a linear dependence of age: the older a voter, the greater the probability of a repeated vote. In the age group of 60 and over, repeated

voting reaches almost 90 percent while in the youngest age cohort up to the age of 29 it varies between half and three quarters. A large portion of KSČM voters has made a decision on their preference long before actual elections are held.

The strong attachment of KSČM voters to the party are partly due to the fact that a major portion of its voters are party members. The share of party members among its voters has been gradually falling: while in 1992 it reached almost 40 percent, in 1998 it fell to 20 percent and in 2002 and 2006 it reached only 12 percent (Enyedi, Linek 2008). The reason for this reduction is the total fall of party membership which decreased from 350,000 in 1992 to below 200,000 in 1995 and less than 70,000 today. The membership base is very old and the average age is over 70. Less than 10 percent of party members entered the party after 1990. This means that 90 percent of the current membership is made up of those who entered the party during the communist rule.

With its voter support KSČM ranks among middle-sized parties and its vote shares after 1990 have always been above 10 percent; in 2002 the party's support exceeded 18 percent. In absolute figures the number of party votes in the Chamber of Deputies elections has been falling since 1990, even though the absolute number of eligible voters has grown. The potential linearity in the decrease in voter support is disrupted by the party support in 1996 and especially in 2002. Next to KSČM, the Left Block (Levý blok, LB) was running in 1996 elections. This party split from KSČM in 1993 and its voters resembled in many ways KSČM voters and voted for KSČM in the previous and subsequent elections (Linek 2008). In 1996 elections LB gained more than 85,000 votes, which equalled 1.4 percent of the vote; if these votes went to KSČM, the deviation in the linearity in the falling support would not have occurred in 1996.

Insert Table 1

In 2002 KSČM support increased compared to the previous elections by more than 200,000 votes; the party lost approximately the same amount of votes in the subsequent elections in 2006 (see Table 1). The 2002 elections to the Chamber of Deputies were held in a situation of major dissatisfaction with politics among the population which was due to the cooperation of the two major parties Social Democrats and Civic Democrats on the principle of the 'Opposition Agreement'. This type of rule meant blurring of differences between the two parties for a large portion of voters, and resulted in falling party identification and an increase in political dissatisfaction (Linek, Lyons 2007; Linek 2010). At the same time, the number of people who believed that it mattered who was in power fell significantly from 83 percent in 1996 to 54 percent in 2002. This was also reflected in the lower election turnout in the national elections at 58 percent and in the increase of KSČM support (Linek 2010). Until then KSČM was the only parliamentary party which did not take part in government and was therefore perceived as the only relevant alternative to established parties.

The percentage of KSČM voters in the total number of eligible voters offers a similar look at KSČM voter support because this information is not distorted by the number of people who actually vote. The share of KSČM as percentage of the valid vote suggests that with falling

voter turnout KSČM support grows. For example, in the 2002 national elections KSČM support as percentage of the valid vote went up by 7.5 percentage points while in terms of the percentage of eligible voters (which information eliminates the influence of voter turnout) the increase in KSČM voter support for was only 2.5 percentage points. Based on analyses of aggregated data, KSČM is the only party whose support increases with growing political dissatisfaction (Linek 2010).

If the 2002 elections meant an increase in KSČM voter support above the party's stable levels, then there was not a single election that brought a major fall of KSČM voter support below its stable levels; even in the course of individual voter cycles (with the exception of the 1992–1996 term) did KSČM voter support not fall under ten percent of voters willing to participate in the elections (according to the regular surveys performed by CVVM and STEM; see Drda, Dudek 2006: 125).¹ KSČM voter support is stable and has fallen slightly over time with the exception of the 2002 elections to the Chamber of Deputies. This exploration of the KSČM voter support has revealed that there were events that influenced its support in time and swung the expected levels of KSČM voter support.

2. How does age affect electoral behaviour?

In scholarly literature the relationship between age and electoral behaviour is most often theorised at two basic analytical levels: (1.) the relationship between age and voter turnout; (2.) the relationship between age and party choice. Most authors distinguish these two analytical categories because the goal of their studies is either to explain voter turnout or party choice. Moreover, in a number of these studies age serves as one of many explanatory variables. In this section I will first introduce the basic findings of electoral research related to age and party choice, which I will then use together with political socialization models of acquiring and learning the political values to elaborate a KSČM voter support model and hypothesis concerning the cohort effects on the KSČM party support.

2.1. Age and party choice

Age differences in party choice are usually explained in two basic ways: as the influence of (1.) the life cycle; or (2.) cohorts or political generations. In the first case, age and the chronology of an individual's aging are important, and mostly the relationship of age and party choice reflects either the logic of radicalism in youth and conservatism in old age or the age specific political interests. In the second case, the period is important when an individual was primarily politically socialised and first experienced politics. The argument is that each generation is influenced by different and differently important political events which are formative for its political attitudes and behaviour (Converse 1969, 1976; Weil 1987).

The relationship of age and party choice in Denmark, Sweden and Norway was studied by Oddbjørn Knutsen using data from 1970 to 1999 (Knutsen 2003). Taking the example of

¹ The fall of voter support for KSČM in the 1992–1996 term under ten percent may have been caused by the fact that a number of respondents were not willing to admit support for KSČM, which is suggested by a comparison of election results and predictions by individual agencies (similarly Fiala, Holzer, Mareš, Pšejja 1999: 183).

typical social-democratic parties in these countries, he managed to prove a relatively strong influence of cohorts. In his study cohorts socialised before the Second World War displayed especially high degrees of support for these parties. Furthermore, the life cycle has an impact on the support for these parties; people over 40 and especially 50 vote for these parties. He registered the influence of age also in the case of green parties and radical socialist parties, which find support especially among young people and the generation socialised after 1968. In the case of right-wing parties the patterns are less clear and differ in individual countries.

On the contrary, when analysing British and German voters, Goerres (2008) did not discover any systematic influence of generations and the life cycle on older voters' choices. He did confirm that young voters and generations born in the 1960s and later choose parties of new politics (e. g. German greens), which is a very similar finding to that of Knutsen. Moreover, Goerres brought attention to another important aspect: the greater the electoral volatility and the weaker voters' attachment to parties, the less clear the relationship of age to party choice. This is why it is more difficult in such systems to find the influence of cohorts or the life cycle on electoral behaviour.

In the post-communist countries the relationship of age and party choice was studied especially in relation to the choice of reform versus communist/post-communist parties. For example, in Hungary the post-communist Hungarian Socialist Party had greater support in 1990 among older voters (Szelenyi, Szelenyi, Poster 1996: 473).² Similar patterns can be also found in the Czech Republic (Matějů, Vlachová a kol. 2000: 319–326; Linek 2008). Sara Schatz points out that in countries that underwent fast political and economic transformation, links between party choice and age were immediately established, with older voters choosing the parties of the former regime and the maintenance of the status quo. On the contrary, in countries with gradual transformation such a link has not been formed (Schatz 2002). Both Goerres' point about the role of volatility and strong attachment to the party and Schatz's argument about the speed of transformation support the argument that in the case of KSČM cohort effect on the voter support might be expected.

2.2. What does this mean for KSČM voter support?

What is typical of the theories mentioned above is that they focus on the effects of the life cycle and political generations; period effects are passed over because they are understood as extraordinary, context specific and unrepeatable, and therefore not important for theoretical explanations. The life cycle effects on KSČM support has been addressed in scholarly literature and is related to class voting and economic voting models (Matějů, Vlachová et al. 2000; Tworzecki 2003; Tucker 2006). These effects will be controlled for when modelling cohort effects on KSČM support (see age effects in models in section 4). I will now concentrate only on cohort effects on KSČM support which have not been as much as suggested in literature so far.

² Political reform strategies in post-communist societies were most endorsed by young citizens, as was shown, for example, by Miller, White and Heywood (1998: 241–245) who looked into political and social-economic values in post-communist countries of central and eastern Europe, or another study of the support for political reform orientations in Russia, Ukraine and Lithuania (Miller, Hesli, Reisinger 1994).

Cohort effects on voter support build on the *persistence model* of values which are learnt in youth and persist throughout one's life. A subset of this model is the *impressionable years model* which explains the how, why and when these values were acquired. According to this model political values are the least fixed and the most prone to change in the period of adolescence and preadulthood (Sears 1975). In subsequent years the stability of these values may indeed become further stabilised but the relationship established in this initial period remains more or less stable for the rest of one's life (Krosnick, Alwin, 1989; Sears, Levy, 2003: 83–87). In general the impressionable years model assumes two arguments because a person is perceptive to the political context at this age (Sears, Levy 2003: 83). First, this is the period of one's first experience with politics which does not get repeated in such a form ever again (Mannheim 1952; Searing, Wright, Rabinowitz 1976; Searing, Schwarz, Lind 1973). Second, the period of adolescence is typical of searching for one's own identity which includes a political component as well (Erikson 1968).

According to the impressionable years model, in order for specific political generations to form, a major socialisation event must occur during adolescence, or put differently, the generation has to be socialised in a period which is different from other periods. Thus formed generations have different political values (and display different voting behaviour) from other generations. With respect to KSČM support we can find several such events and periods. These periods are related, first, to the nature of the political regime, second, to the differences in individual phases of the communist regime, and third, to the Second World War.

Socialisation in the period of a democratic regime should lead to greater support for democracy and thus lower support for KSČM at present. Therefore, individuals socialised in the period of the First Republic and after the 1989 Velvet Revolution should vote for KSČM less often. On the other hand, socialisation in the communist regime provided opportunities for many citizens to create positive ties to the communist party and the regime, which are reproduced in the democratic regime after 1989 and the subsequent elections. During its forty year development the communist regime nevertheless could not have had the same socialisation effect on everyone. It can be presumed that individuals socialised in the early phase linked to the reconstruction ethos will support KSČM today more than those who were socialised in the period of de-Stalinisation and regime liberalisation. Moreover, individuals who were socialised after the invasion of the Warsaw Pact armies, in the period of the Soviet occupation of Czechoslovakia and the ideological exhaustion of the regime, will vote for KSČM the least of all the cohorts which were socialised during the communist regime.

The Second World War meant an increase in support and prestige in society for the communist party due to, among other things, its participation in the resistance, its link to the Soviet Union as the liberator from national socialism and thanks to the party's appropriation of the merits for distributing the property of the expelled German population (high KSČM support in the border region of the Sudeten region has been reproduced since this time). Therefore, generations socialised in the period of the Second World War, the subsequent seizure of power by the communist party and the building of the communist regime should support KSČM in a high measure today.

Research into political socialisation suggests that the process of primary political learning starts in the early phase of adolescence and that most individuals have formed their basic political orientations by the end of adolescence (Easton, Dennis 1969). Therefore, I consider the age of 15 to be a sufficient limit for the formation of a basic political identity (similarly see Mishler, Rose 2007). Therefore, a basic hypothesis can be formulated about different cohort effects on electoral support for KSČM in the following generations defined by year of birth (H1):

- First Republic generation born between 1900 and 1924
- The generation of Second World War and building of communism born between 1925 and 1939³
- The generation of de-Stalinisation and communist regime liberalisation born between 1940 and 1954
- The Normalisation generation born between 1955 and 1974
- The generation of the renewed democratic regime born after 1975

Much more specifically, a hypothesis can be put forward based on the socialisation in a democratic regime that cohort effects on KSČM support will be the lowest in the First Republic generation and the generation of the renewed democratic regime (H2). At the same time, among generations socialised during the communist regime, the lowest cohort effect on KSČM electoral support should be among the Normalisation generation because in this period the indoctrination was not as strong as during the first half of the communist regime and because the legitimacy of the regime melted away due to the Soviet occupation of the country (H3).

3. Analytical strategy, data and variables

The analysis of the influence of political generations on KSČM (the Communist Party of Bohemia and Moravia) voter support is based on 1996–2008 survey data. Cohort analysis is the basic analytical strategy; it serves to explore social (in the widest possible sense of the word) change from the perspective of groups defined by the time of their birth. These groups have different historical experiences and in consequences, such groups can have different attitudes and behaviours, and therefore can contribute to social change (Glenn 1977: 21–24). Cohort analysis strives to explain phenomena using differences between cohorts while taking into account differences brought about by the age of individuals and period of data collection (Mason, Wolfinger 2002). Instead of cohort analysis, the term often used is age-period-cohort analysis though the greatest emphasis is placed on cohort membership as a source of change. The goal of my research strategy is to ascertain to what extent KSČM voter support is contingent on the membership in political generations and to what extent these generations differ.

³ The generation socialised during the Second World War does not necessarily include only those who reached the age of 15 between 1939 and 1945. It is very likely that significantly younger groups were also primarily socialised at this time. The reason for this is may be the political and social traumas related to the period and the exposure to extreme violence and material deprivation.

3.1. Cohort analysis

Cohort analysis uses information about populations or survey samples for individual years of data collection; however, it does not work with information about the same individuals, as do analyses based on panel surveys. Therefore, cohort analysis cannot speak about change or stability in attitudes and actions of individuals but makes statements about social units which are represented by individuals, be it age groups, periods or cohorts. In my case of KSČM voter support we may find, for example, that in the 40–49 age group KSČM had 20 % support in 1990 and 20 % in the 50–59 age group in 2000. Based on this information, cohort analysis says that in the given cohort there has been no change in KSČM voter support. Nevertheless, this does not mean that individuals in this group may not have changed their preferences. The given 20 % of KSČM voters could have been different in 1990 from those who supported KSČM in 2000. In this sense cohort analysis speaks about social units.

To explain social change cohort analysis uses three sources of change: age, period and cohort effects. Age effects are linked to the biological processes of ageing and a life phase in which an individual is located, with his roles and status. Unlike the influence of period and cohort which reflect external factors related to individuals, the influence of age is related directly to individuals. Period effects refer to the time in which an individual lives and during which his attitudes or actions are measured. Period effects represent various social and political transformations, economic crises or wars; the expectation is that period effects influence and transform society as a whole. Cohort refers to individuals who were born in the same year or period. Such a group passes through life cycles simultaneously and experiences various social conditions at the same age. Thus, various cohorts differ in the extent to which they have been exposed to social changes and events; consequently, they have different historical experience. In the case of voter support the effect of individual factors could be as follows. Age effects on KSČM voter support may lie in the fact that as individuals gradually age and move toward retirement, they shift their support toward KSČM. This is the core of a classical class-based theory of KSČM voter support which builds on the premise that the party advances interests of low-status groups, including pensioners (Matějů, Vlachová et al. 2000; Tworzecki 2003; Tucker 2006). The impact of events on KSČM voter support can be based on the influence of specific situations and events which increase its support. For example, an economic crisis or an increase in unemployment can result in higher support for the party because KSČM advances generous social policy. After such events pass, the electoral support should go down again (Linek 2010 on the influence of the opposition agreement). Cohort effects on KSČM support should take the form of groups defined by the year of birth having the same or systematically changing electoral support for the party.

3.2. The identification problem of the age-period-cohort effects and its multilevel modelling solution

The three sources of change can be conceptually easily distinguished but when studying them, it is difficult to identify their effects because they are functionally (linearly) dependent: period (time of data collection) equals the total of an individual's age and year of his birth. The

problem lies in the fact that age is a function of period (data collection) and cohort (the year of birth); period is a function of cohort and age; and cohort is a function of age and period. If we know that a concrete KSČM voter reached the age of 65 in 2010, we also know that he represents the cohort born in 1945. In scholarly literature numerous solutions have been proposed to overcome this identification problem (for an overview see Fienberg, Mason 1985; Robertson, Gandini, Boyle 1999). All the solutions have been criticised, because of unrealistic assumptions or because they lead to inexact estimates or because they cannot safely distinguish between the effects of individual factors. The reason for this critique was in many cases the fact that these procedures worked with the individual-level information aggregated to cohorts and age groups which were defined, for example, by a five-year interval. Such data usually took the form of tables with percentages representing an event where lines indicated age groups, columns the period and cohorts were diagonal.

In recent years Yang with Land presented a potential solution⁴ for data obtained from repeated surveys in the form of a hierarchical age-period-cohort model (HAPC) (see Yang 2006, 2008; Yang, Land 2006, 2008; for a simplified description of the model see Smith 2008). This model uses an individual-level data from repeated surveys and strives to resolve the identification problem of age-period-cohort analysis based on two assumptions: (1.) linear age-period-cohort dependence is eliminated through a different period grouping of the variables of age, period and cohort (this solution was proposed already by Mason et. al (1973)) and a non-linear relationship of age to the phenomena under study (Feinberg, Mason (1985)); (2.) different treatment of information about age, period and cohort based on their different ontological status where age is considered to be a characteristic specific to an individual at the time of data collection while period and cohort are considered to be supra-individual (contextual) features.

These assumptions make it possible in a hierarchical model to consider age to be an individual variable and think about it as a first level effect (together with other explanatory variables such as sex or education), while period and cohort are conceptualised as second level effects. In the first level age is considered to be a feature of an individual in the year of data collection and enters the model as a fixed effect (i.e., as a classical explanatory variable in regression analysis). In the second level a concrete individual is a member of more groups which do not overlap and is nested in and cross-classified by two types of social contexts of a higher order (period and cohort). Individual respondents at the concrete time of data collection can come from various cohorts and members of a concrete cohort may be asked at various times of data collection. Therefore it is necessary to specify the hierarchical model as a model of cross-classified effects. These effects can be fixed or random; nevertheless, a comparison of both specifications of the effects speaks toward random effects, especially if great numbers of respondents are available for individual cohorts and periods (Yang, Land 2008: 322). Therefore the model is specified as a cross-classified random-effects model. Thus

⁴ According to Harding (2009: 1450) HAPC does not resolve the age-period-cohort identification problem but avoids it by estimating fixed additive effects for age and relying on random effects for periods and cohorts.

specified model makes it possible to estimate concurrently the effects of age, period and cohort on the dependent variable.⁵

3.3. Data and variables

The analysis is based on surveys carried out by the Centre for Public Opinion Research at the Institute of Sociology of the Academy of Sciences of the Czech Republic between 1996 and 2008. These surveys were carried out approximately once a month; they were based on a quota sampling and the average size of each survey was approximately 1,000 respondents. Information on voter turnout and party choice in hypothetical elections to the Chamber of Deputies, the respondent's age and sex were collected from each survey. This information from individual surveys was merged in a single data file. The size of the sample which contains a total of 135 surveys carried out over the 13-year span is 134,448.

A vote for KSČM in elections to the Chamber of Deputies is the dependent variable which takes the form of vote for KSČM in hypothetical elections to the Chamber of Deputies. The operationalisation of the dependent variable was done in three steps. First, based on a positive answer to the question about having voted in hypothetical elections to the Chamber of Deputies, those respondents were chosen who would have actually voted. These respondents were then asked which party they would have chosen. In the third step only those respondents were chosen who stated that they would have chosen KSČM in the hypothetical elections to the Chamber of Deputies.⁶ This operationalisation occurred in principle uniformly in all the surveys used, though of these, four surveys were post-election surveys which instead of a choice of a party in hypothetical elections to the Chamber of Deputies contained a question about the just held elections to the Chamber of Deputies.⁷

For the operationalisation of the dependent variable answers "don't know" and "NA" were considered to be negative answers. That means that these answers have been transformed into "abstention" in the case of both turnout and party choice. A different strategy could have been to consider these answers as missing cases. The reasons for the strategy I have used lie in my interest in approximating respondents' actually intended action. In the case of having voted I hold that in most cases answers "don't know" and "NA" can be considered to be evasive answers with the goal not to admit to socially unacceptable behaviour (not having voted). Therefore the transformation of the answer "don't know" and "NA" into "abstention" means approximating the actually intended action of a respondent. In the case of party choice, these types of answers are more of an expression of indifference to elections and are a consequence of previous positive answers to questions about having voted in the hypothetical elections. In most cases, though, these people will not vote in the elections. Therefore, the transformation of answers "don't know" and "NA" to answer "abstention" in this case also means an

⁵ A specification of the model using equations is presented, for example, by Yang (2008), Yang, Land (2006).

⁶ The formulation of the question regarding having voted was as follows: "Imagine that elections to the Chamber of Deputies would be held next week. Would you have voted?". This was followed by a question about the party chosen in such elections: "Which party would you have voted for?".

⁷ The formulation of the question regarding having voted was as follows: "On the day X elections to the Chamber of Deputies were held. Did you vote in these elections?". This was followed by a question about the party chosen in such elections: "Which party did you vote for?".

approximation of the actual actions of the respondent. At the same time, this operationalisation best serves the goal of my analysis, which is to model KSČM voter support versus all other modes of voter behaviour; this mode of operationalisation is used by almost all studies focused on party choice.

Information about voter turnout and party choice in post-election surveys differed from the actual voter turnout and voter choice in given elections to the Chamber of Deputies. Similarly, information about voter turnout and party support in election years differed from the actual voter turnout and party support. Moreover, these differences were different in individual years when elections to the Chamber of Deputies were held. The reasons for this lack of correspondence vary: from a biased sample to unintentionally inexact answers (Belli, Traugott, Young, McGonagle 1999; Stocké, Stark 2007) to intentional over-estimation of voter turnout or support for concrete party (Belli, Moore, VanHoewyk 2006; Granberg, Holmberg. 1999; Swaddle, Heath 1989). In view of the fact that it is not possible to compare turnout and party choice for each analysed survey with real election results, the data is not weighted.

The independent variables of sex and age were operationalised in the following manner. In the case of sex we are dealing with a dichotomous variable: man (1) – woman (0). In the case of age we are dealing with a quantitative continuous variable which takes values from 18 to 98 years of age. In both cases answers “don’t know” and “NA” were considered as missing values. This concerned 69 cases in the case of sex and 54 in the case of age, which equals 0.05 % of cases. Based on the variable age another variable was formed, which is necessary for cohort analysis: the age of birth. The procedure for calculating the year of birth consisted in deducting age from the year in which the given questionnaire survey was carried out.

4. Results

I will first explore the age-period-cohort effects on KSČM voter support and the empirical support for the hypotheses stated above by describing graphs which show KSČM support in individual age groups and cohorts over time. As a next step I will model the age-period-cohort effects on KSČM voter support using the hierarchical cross-classified random effects model which estimates the effects of all three variables together. KSČM voter support is operationalised as a percentage of all eligible voters voting for KSČM. Therefore, KSČM support is presented at a lower level than is usually known from election results as those take into account the different levels of voter turnout.

4.1. Age-period-cohort effects on KSČM voter support

It has long been recognised that KSČM support concentrates among older individuals. This finding is confirmed in Graph 1 which shows KSČM support between 1996 and 2008 among age groups defined by a ten-year interval. KSČM support in the age group 18–29 oscillates between 2 to 4.5 percent and between 2 and 6 percent in the age group 30–39. On the contrary, KSČM voter support is between 10 and 21 percent in the age group 60–69 and between 11 and 23 percent in the age group 70 and over. Generally, KSČM support was

between 5.5 and 10.5 percent between 1996 and 2008. KSČM voter support is largely contingent upon the age structure, and there is a linear relationship: the older a person, the greater the probability that they will vote for KSČM.

insert Graphs 1 and 2

At the same time, KSČM voter support did not depend only on the age structure during the analysed period but also on a period when a person was born, on cohorts. Cohort effects can be seen especially among those born after 1954. In all the three youngest age cohorts the variations in KSČM voter support are smaller than are the general changes in KSČM voter support. The general increase in KSČM support between 1998 and 1999 was higher than the increase in these three cohorts. On the contrary, in the older cohorts born before 1954, KSČM support increased on average more than was the general increase. This suggests that in the cohorts born before 1954 KSČM support was not only reproduced but also increased. This means that the aging of the younger cohorts did not have almost any effect on increasing KSČM support while in the older cohorts aging (and period effects) were coupled with an increase in KSČM support.

In terms of cohort effects the issue is not only that the probability of voting for KSČM in the next generation is reproduced in time but also that this probability is a consequence of the same voters voting regularly for KSČM. If these probabilities were not a result of party loyalty but major volatility in party choice, the claim about cohort effects on KSČM support would be hardly defensible. In such as case KSČM choice would evidently be a result of completely different reasons than those behind cohort effects (see Georres 2008). Therefore, the information about party identification of KSČM voters which I have mentioned earlier is very important.

Both graphs provide arguments for both cohort and life cycle effects. At the same time, KSČM support depends on when it was measured. While in the first three years of the analysed period KSČM support was around six percent, since 1999 it has been around ten percent. Since 2006 it has fallen to nine percent. These changes in the levels of KSČM support are observable in cohorts as well as in age groups. It therefore appears that age, as well as cohort and period affect the level of KSČM voter support. The task for the hierarchical modelling of age-period-cohort effects is to show whether KSČM support is the effect of all three, especially whether KSČM support is driven by age or cohort effects.

4.2. Hierarchical age-period-cohort effects model

The modelling strategy followed the advice of Yang and Land (2006) to define cohorts by 5-year intervals. This specification is used in first two models (see Table 2). In the model 3 I used one year cohorts to see if there are any breaks in cohort effects which didn't fit the 5-year intervals or which take much longer time. In model 4 I use a specification which is based on the 5 political generations defined in part 2; I add one more generation to them based on the detailed analysis of cohort effects defined by one year in model 3. Table 2 presents four binary logistic models of cross-classified random period and cohort effects. The first model

estimates at level 1 bivariate associations of age with choice of KSČM whereas the other model estimates joint effects of age and sex. In all models age is specified to have quadratic effect. The reason is that age impacts voter turnout in two ways: firstly, voter turnout grows with age and, second, from a certain age voter turnout starts falling (see section 2.2). Voter turnout can indirectly influence the probability of voting for KSČM because it is ascertained for the whole population regardless of voter turnout.

insert Table 2

In all models age effects on KSČM voter support are statistically significant when controlling for random effects of period and cohort. According to model 1, the odds of a person choosing KSČM increases by around 5 percent with each year of life ($\exp(0.053)=1.055$); the size of the effect slightly varies across the models. This increase, however, does not fall over time because the relationship between age and KSČM support is not curvilinear. Age effects grow almost linearly due to the weak quadratic age effect. The second model adds sex effect (man) on logit of KSČM voting. The odds of men voting for KSČM is 35 percent higher than that of women ($\exp(0.304)=1.355$). The odds reflect approximately 57 percent share of men among KSČM voters. Generally the model 2 with level 1 age and sex variables fits the data better than model 1 because the BIC statistics are lower in the other model.

Estimates of random effects at level 2 are presented as a variance (standard deviation) of a model constant across cohorts and periods. Statistical significance of both effects indicates major period and cohort effects on KSČM voter support. In first three models the constant varies between periods more than between cohorts, which means that the period in which KSČM support was ascertained affects KSČM support more than the year when a respondent was born. However, when the cohorts are defined based on hypothesised political generations, the cohort effects become stronger. Graph 3 shows the estimated period effects on logit of KSČM support for each year at the mean age and averaged over all birth cohorts. The graph indicates a major increase in period effects on KSČM support between 1998 and 2000; since then the period effects were relatively stable until 2005. Since then in 2006 period effects declined and have remained stable for three years.

Graph 4 shows the estimated cohort effects in terms of logit of KSČM support for five-year cohorts at the mean age and averaged over all periods. The graph indicates an important cohort effects on KSČM support. These effects were one of the smallest in cohorts born before 1930.⁸ Largely, these cohorts were primarily politically socialized in the period of the First Republic. In cohorts born between 1931 and 1945 cohort effects on KSČM support are the highest. These are groups that were primarily politically socialized during the Second World War, the onset of communism and tightening of its rule. The two following cohorts born between 1946 and 1955 display above-average cohort effects on KSČM support but compared to the previous cohorts we can see a decline. These are groups socialized in the

⁸ More detailed analyses specifying one-year cohorts suggest that in the oldest cohort a break occurs at year of birth in 1925. This would exactly correspond to this cohort being labeled the “First Republic” cohort.

political thawing of the 1960s. In the subsequent cohorts the cohort effects on KSČM support are negative (with the exception of the 1971–1975 cohort). The first wave of negative cohort effects on KSČM voter support appears in the cohort born between 1956 and 1960 and the second wave in a cohort born between 1976 and 1980. While in the first case these are groups socialised after the invasion of the Warsaw Pact armies in 1968, at the time when the liberalization efforts were crushed and the normalisation set in, in the second case we are dealing with a generation that was primarily politically socialised in the democratic regime.

insert Graphs 3 and 4

To get better sense of borders between political generations I estimated a model which defines cohorts in terms of years (see model 3 in Table 2). Cohort effects are presented in the Graph 5 which also contains the time lines defining different periods. The pattern of cohort effects fits hypothesis except for the Czech voters born between 1969 and 1975 who have higher probability of voting for Communists than in the neighbouring cohorts. This increase disrupts the gradually growing negative cohort effect on KSČM support. There is no straightforward explanation for this effect except for the one: the parents of this group of Czechs were first post-war generation raised in pro-Communist, pro-Soviet and anti-German environment. This post-war generation might have socialized their kids into pro-Communist values.

The fourth model in Table 2 presents estimates of a model in which political generations were defined based on political history (see section 2). The cohort specification was supplemented with a cohort born between 1969 and 1975. In this model age, sex and period effects on KSČM support remain almost the same as in the previous models. A greater difference can be seen in cohort effects which have grown significantly. This means that cohorts defined in this way reflect much more accurately the changes in which cohorts influence KSČM voter support. The cohort effects in this model are even stronger than period effects. The BIC statistics which assess model and data correspondence is the lowest in this model, which means that this model describes the data best.

In view of the fact that age and period effects in model 4 are the same as in the previous models, I will only present a graph to show the estimated cohort effects on logit KSČM support for six cohorts defined based on political history (see Graph 6). The estimated effects (similarly to model 2 effects presented in Graph 4) confirm differences in the degree of influence of political generations on KSČM support (H1). Relatively similar effects for generations born between 1925 and 1954 suggest that these cohorts could be merged; on the other hand, Graphs 4 and 5 suggests differences in these cohorts. Moreover, effects in both the extreme cohorts which were primarily politically socialised in a democratic regimes show that in these generations KSČM voter support is the lowest (H2). In generations socialised during the communist regime KSČM support is the lowest in the generation socialised during the period of Normalisation (H3). An exception to this is the electoral behaviour of the cohort born between 1969 and 1975 where KSČM support grows significantly.

Insert Graph 5 and 6

5. Conclusion

In this study I have analysed the effect of political generations on current KSČM voter support. The goal was to show that past events have had an effect on current voter behaviour without having to be reproduced in time and strengthened through repeated voter behaviour in competitive elections. The findings regarding the various generation effects on KSČM support confirm this goal. KSČM support is largely affected by (1.) the Second World War and the subsequent communist coup, (2.) the military invasion of Warsaw Pact armies under the leadership of the Soviet Union in 1968 and (3.) the transition to democracy in 1989. These events classify Czech society into four basic cohorts: those born before 1924, between 1925 and 1954, between 1955 and 1975 and after 1976. In these generations cohort effects on KSČM support differ when controlling for period and age.

These findings bring important information for the theory of party identification and electoral behaviour. Firstly it is clear that political events which could not have been reflected in electoral behaviour directly because at the given time elections were not competitive, can have an effect on voter support many years and decades after the fact. For example, the invasion of Warsaw Pact armies in Czechoslovakia in 1968 and the following Normalisation reduce the probability of voting for KSČM although more than 20 years have elapsed between these events and the opportunity to vote for KSČM.

Secondly, this study shows that the communist regime which is usually presented as a regime which commanded and controlled people was capable of generating such a measure of positive attitudes, values and emotions that these can persist even in a democratic regime. Positive ties to a political party can transfer from regime to regime regardless of the current institutional arrangements. Such transitions are likely due to the stability of the object to which those ties are linked. That the ties to the communist party are more of an emotional nature can be seen in the fact that since 1990 voting for KSČM equals almost wasting one's vote because the party has a coalition potential nigh zero; that voters could influence the course of politics by voting for KSČM is almost nil.

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Table 1. Electoral support of KSČM in national elections between 1990–2010

year	Eligible voters (N)	Turnout (%)	Votes for KSČM (N)	Votes for KSČM (% of valid votes)	Votes for KSČM (% of eligible voters)
1990	7 553 477	96.79	954 690	13.24	12.64
1992	7 738 981	85.08	909 490	14.05	11.75
1996	7 990 770	76.41	626 136	10.33	7.84
1998	8 116 836	74.03	658 550	11.03	8.11
2002	8 264 484	58.00	882 653	18.51	10.68
2006	8 333 305	64.47	685 328	12.81	8.22
2010	8 415 892	62.60	589 765	11.27	7.01

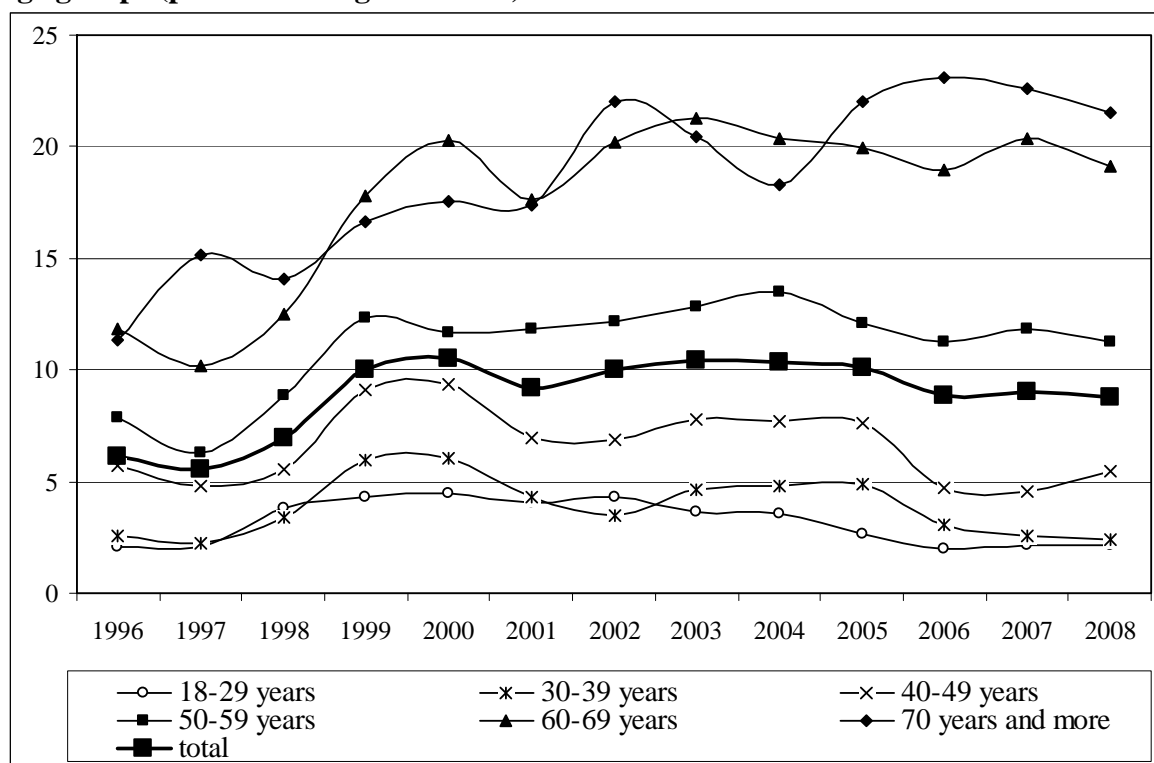
Source: Czech Statistical Office.

Table 2. Binary logistic model of cross-classified random effects of period and cohorts on electoral support of KSČM in national elections between 1996–2008

fixed effects	model 1	model 2	model 3	model 4
constant	−4.713 *** (0.257)	−4.898 *** (0.248)	−2.757 *** (0.133)	−2.839 *** (0.133)
age	0.053 *** (0.009)	0.054 *** (0.009)	0.065 *** (0.009)	0.049 *** (0.009)
age ²	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
male		0.304 *** (0.020)	0.304 *** (0.020)	0.303 *** (0.020)
random effects				
cohort effect (sd)	0.133 * (0.042)	0.129 * (0.039)	0.149 * (0.092)	0.287 * (0.092)
period effect (sd)	0.209 * (0.043)	0.209 * (0.043)	0.211 * (0.043)	0.210 * (0.043)
Goodness-of-Fit (BIC)	74860	74612	74634	74589
Log likelihood	−37400.66	−37270.78	−37259.21	−37259.21
N	134394	134325	134325	134325
Cohort specification	5-year	5-year	1-year	6 gen.

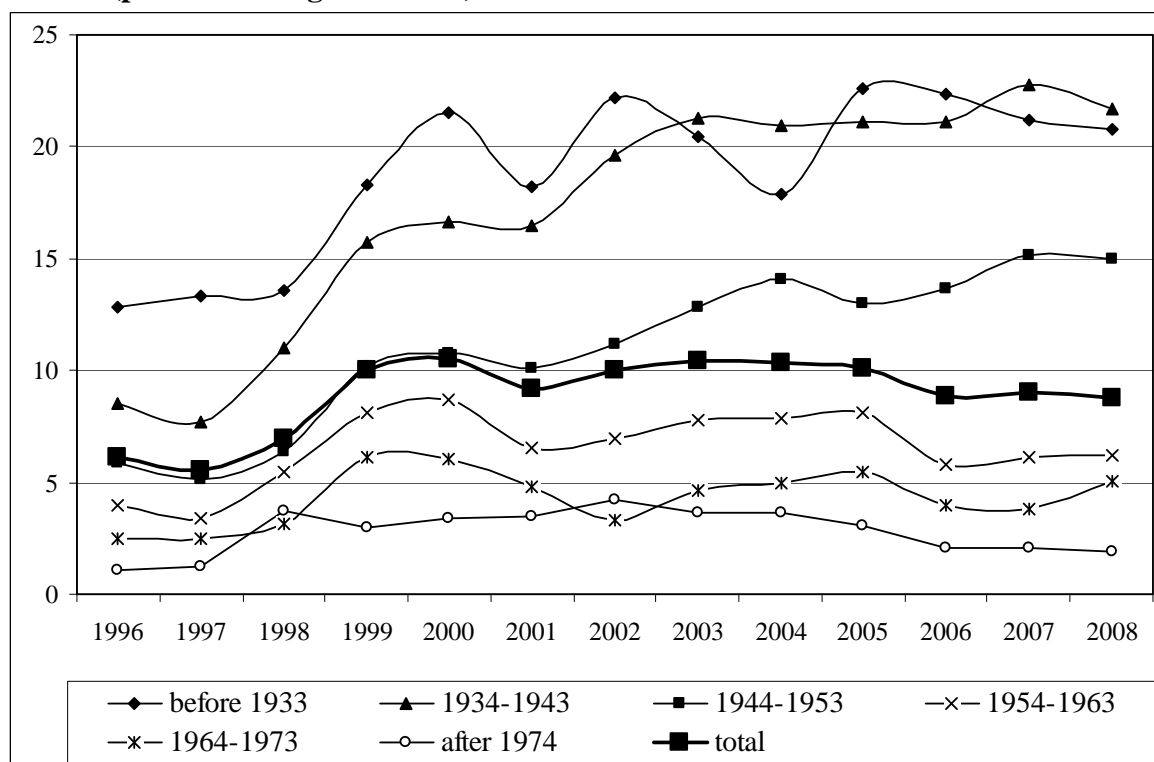
Source: Merged datafiles from CVVM monthly surveys (1996-2008).

Graph 1. Electoral support of KSČM in national elections between 1996–2008 in various age groups (per cent of eligible voters)



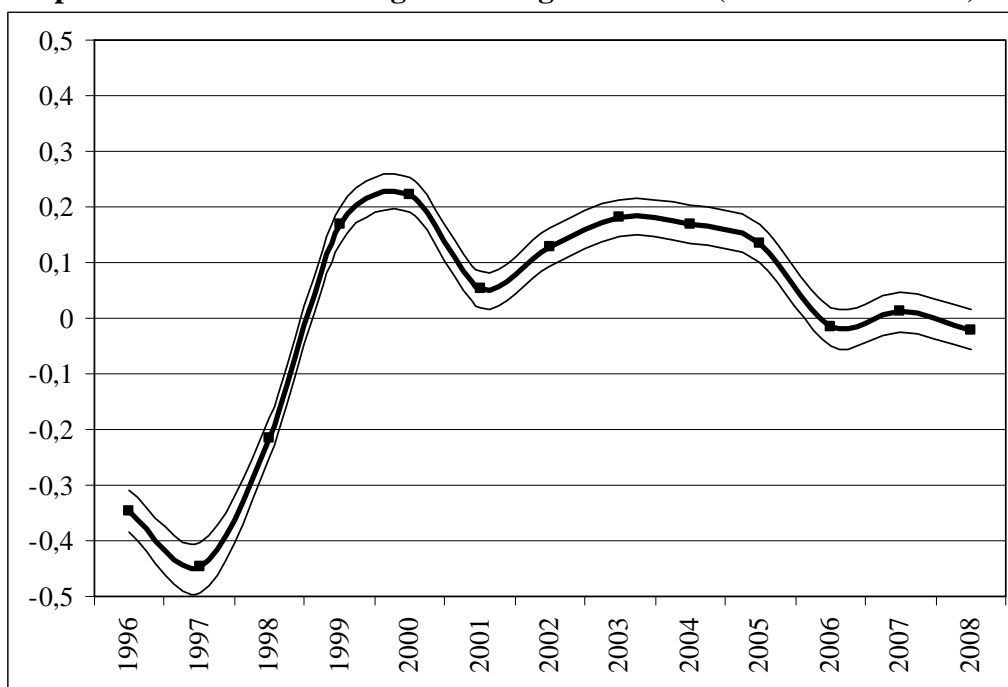
Source: Merged datafiles from CVVM monthly surveys (1996-2008).

Graph 2. Electoral support of KSČM in national elections between 1996–2008 in various cohorts (per cent of eligible voters)



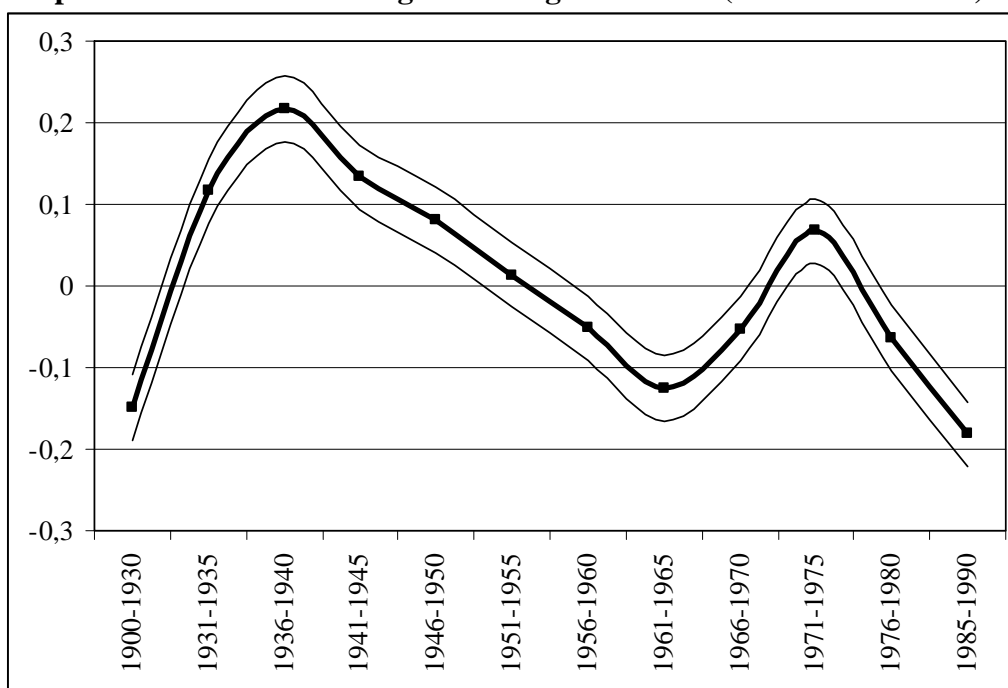
Source: Merged datafiles from CVVM monthly surveys (1996-2008).

Graph 3. Period effects on logit of voting for KŠČM (model 2 estimates)



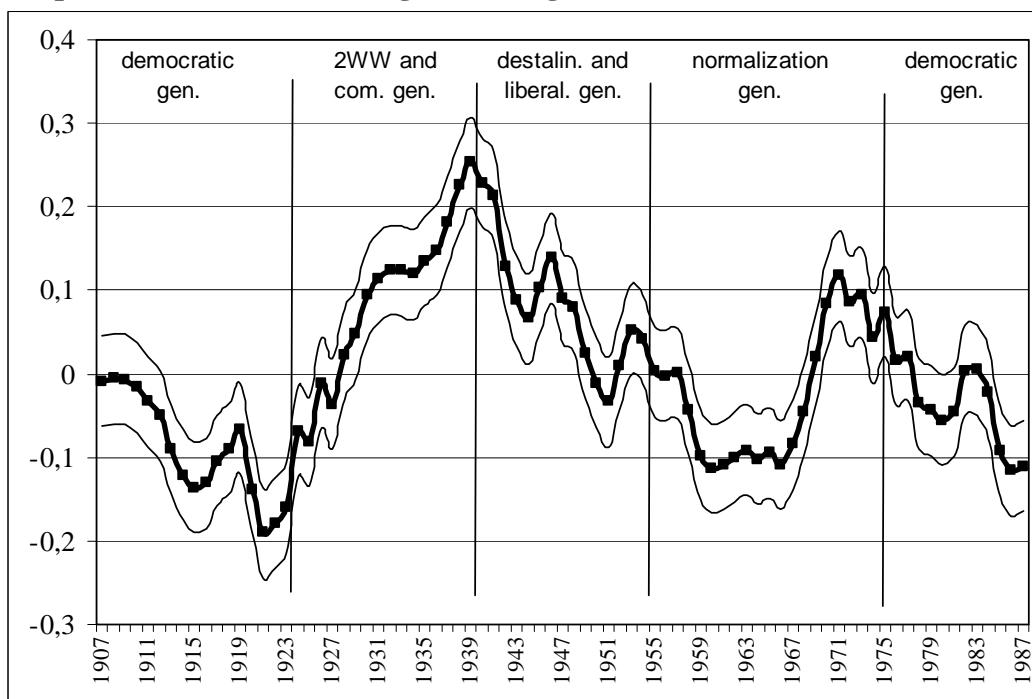
Source: Merged datafiles from CVVM monthly surveys (1996

Graph 4. Cohort effects on logit of voting for KŠČM (model 2 estimates)



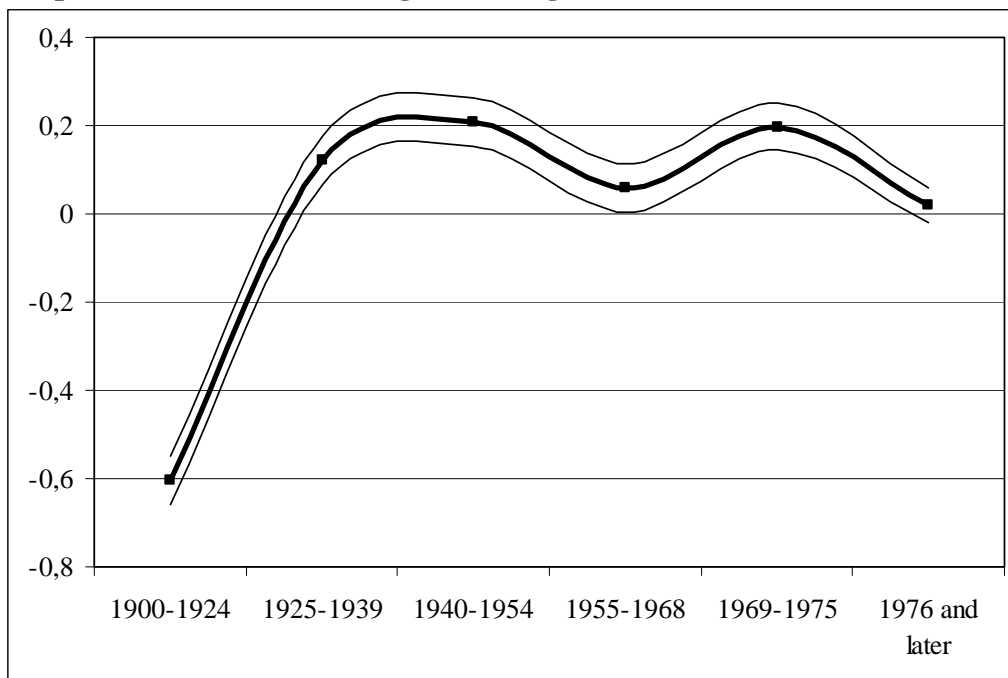
Source: Merged datafiles from CVVM monthly surveys (1996-2008).

Graph 5. Cohort effects on logit of voting for KSČM (model 3 estimates)



Source: Merged datafiles from CVVM monthly surveys (1996-2008).

Graph 6. Cohort effects on logit of voting for KSČM (model 4 estimates)



Source: Merged datafiles from CVVM monthly surveys (1996-2008).