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Changing choices, changing elections : a study of volatility and vote-switching in six Western European countries

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Abstract: It is often argued that elections in established Western European democracies have become more unstable during recent decades. Much scholarly work has thus focused on the study of changes in election re-sults in order to understand the causes of this apparent increase. In doing so, volatility has been usually associated with voter instability, but the individual-level mechanisms of electoral change have been subject to very scarce research. This thesis is an attempt to shed more light on this providing a comparative account with data from dozens of elections in six Western European countries. It first investigates how and to what extent different types of behavior translate into changes in election re-sults. Findings show that most of the volatility is caused by the action of switching voters. Due to the presence of canceling out, the relation-ship between the proportion of switchers and volatility is, however, far from perfect, although it can be approximated by introducing some of the variables that intervene in the translation of switching into net change. The second part of the thesis focuses on vote-switching and provides two main findings. First, inertia molds voters' preferences and impacts on their future behavior, which explains why most of the switching that takes place in elections is produced by young adults. Second, variations in the number of switchers across elections tend to be caused by the im-pact of short-term factors in the form of cyclical peaks. These peaks are usually followed by subsequent periods of stability.

Sometimes, however, volatility produces changes in the terms of competition and generates a new equilibrium in the number of switchers at subsequent elections. This seems to be the reason why Western European voters appear more unstable in recent decades.

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Instituto Juan March de Estudios e Investigaciones

RAÚL GÓMEZ MARTÍNEZ

**CHANGING CHOICES, CHANGING ELECTIONS.
A STUDY OF VOLATILITY AND VOTE-SWITCHING IN
SIX WESTERN EUROPEAN COUNTRIES**

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Esta obra se presentó como tesis doctoral en el Departamento de Ciencias Políticas y Sociales del Instituto Universitario Europeo de Florencia, el 27 de junio de 2012. El Tribunal estuvo compuesto por los profesores doctores Mark Franklin, José Ramón Montero, Wouter van der Brug y Adrienne Heritier.

Raúl Gómez Martínez es licenciado en Derecho y en Ciencias Políticas por la Universidad de Murcia. Formó parte de la decimonovena promoción de estudiantes del Centro de Estudios Avanzados en Ciencias Sociales del Instituto Juan March de Estudios e Investigaciones, donde obtuvo el título de Máster en 2008. Realizó su tesis doctoral en el Centro bajo la supervisión del Prof. José Ramón Montero y en el Instituto Universitario Europeo bajo la dirección del Prof. Mark Franklin.

«Ποταμοῖσι τοῖσιν αὐτοῖσιν ἐμβαίνουσιν,
ἕτερα καὶ ἕτερα ὕδατα ἐπιρρεῖ»
("On those who step into the same rivers,
ever-newer waters flow")

Heraclitus (as mentioned in Plato's Cratylus).

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ABSTRACT

It is often argued that elections in established Western European democracies have become more unstable during recent decades. Much scholarly work has thus focused on the study of changes in election results in order to understand the causes of this apparent increase. In doing so, volatility has been usually associated with voter instability, but the individual-level mechanisms of electoral change have been subject to very scarce research. This thesis is an attempt to shed more light on this providing a comparative account with data from dozens of elections in six Western European countries. It first investigates how and to what extent different types of behavior translate into changes in election results. Findings show that most of the volatility is caused by the action of switching voters. Due to the presence of canceling out, the relationship between the proportion of switchers and volatility is, however, far from perfect, although it can be approximated by introducing some of the variables that intervene in the translation of switching into net change. The second part of the thesis focuses on vote-switching and provides two main findings. First, inertia molds voters' preferences and impacts on their future behavior, which explains why most of the switching that takes place in elections is produced by young adults. Second, variations in the number of switchers across elections tend to be caused by the impact of short-term factors in the form of cyclical peaks. These peaks are usually followed by subsequent periods of stability. Sometimes, however, volatility produces changes in the terms of competition and generates a new equilibrium in the number of switchers at subsequent elections. This seems to be the reason why Western European voters appear more unstable in recent decades.

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Going to Florence was the next fundamental step in both my life and my career. Like so many other students at the Juan March Institute, I started to apply to Ph.D. positions soon after I finished the MA. Indeed, the EUI was familiar to me, not only because some of my professors in Murcia had written their theses there, but also because some of my colleagues from the Juan March were there before I even considered applying. Javi and Luis, whom I hardly knew at that time, turned out to be amazing friends. They encouraged me to apply and supported me all throughout the process, and then again when I was accepted at the EUI.

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CHAPTER 1. FROM ELECTORAL VOLATILITY TO VOTE SWITCHING: EXPLAINING THE CHANGE THAT CHANGES THINGS

Electoral change is puzzling, not only for political scientists but for the general public. Every time that an election takes place, and especially when it comes together with important changes in the government and/or the party system, political commentators and politicians alike engage in interesting discussions and debates where they wonder what led election results to change the way they did. But the intrinsic interest of electoral change goes far beyond the results of particular elections. Although punishing and rewarding parties for what they do or what they stand for is one of the fundamentals of democracy, scholarly literature has demonstrated political preferences to be rather stable, with most voters becoming attached to particular parties which they tend to vote for most of the time (Campbell et al., 1960; Converse, 1976; Berglund et al., 2005; Holmberg, 2007; Lewis-Beck et al., 2008; van der Eijk and Franklin, 2009). It is in this context that some interesting questions arise, for how can electoral change be explained if people have a tendency to stick with a particular party? And how can this be compatible with democratic representation and accountability?

In this chapter, I explain how this thesis aims to answer these and other questions that concern electoral change. I claim that previous investigations on the topic have failed to build up a comprehensive account that links voting behavior to election results and grows from the bottom, explaining the mechanisms that generate vote stability within the indi-

vidual, to the top, accounting for the role of political actors and political competition in order to explain instability across elections. This thesis attempts to fill this gap and to shed more light on a topic for which comparative evidence at the individual level is certainly scarce.

In what follows, I introduce the importance of the topic (Section 1.1) and the different approaches to volatility and voter instability that can be found in the literature, together with their limitations (Section 1.2). I then provide different definitions of volatility that have been used in published work (Section 1.3), highlight the shortcomings of the different measures and indicate which of them will be used as a dependent variable in this thesis (Section 1.4). Following this, I explain the way in which the different chapters proceed (Section 1.5). Thus, Section 1.5.1 focuses on the different ways in which net volatility may come about and explains why most of the change in election results is expected to come from switching voters (issues that are investigated in Chapter 2). Section 1.5.2 focuses on the second part of the thesis, where attention is paid to the reasons that lead voters to switch. Thus, it first highlights the importance of using vote-switching as a dependent variable, and then moves on to focus on the development of vote instability within the individual (which is what Chapter 3 deals with), and on variations in the number of switching voters across elections (which is the focus of Chapter 4). Finally, Section 1.6 contains notes on the data, the research design and some methodological issues.

1.1. Introducing electoral change

Essential as they are for understanding the importance of the topic as a whole, the questions opening this chapter are not the only reason that justifies the study of electoral change. When particular elections are observed and compared to one another, different patterns and dynamics arise that deserve an explanation. Vote instability varies dramatically across countries and, in many cases, also over time. However, several decades of electoral studies have not provided convincing, comprehen-

sive explanations, as the way in which electoral change takes place has been subject to extremely little research. Even if we now have a wider understanding with regard to vote choice, research on why voters cease to support the same party in subsequent elections has only been conducted in a rather atomized and non-comparative way.

The Oxford English Dictionary defines the term volatile as “liable to change rapidly and unpredictably, especially for the worse”, a conceptualization which is further illustrated with the phrase “the political situation was becoming more volatile”. Even if most voters at the present time may certainly agree that political changes are always for the worse, electoral volatility need not have a negative connotation. A certain degree of volatility is actually necessary for democracy to work, as it implies that voters are able to keep politicians accountable for their actions, while both extremely low and extremely high levels of it might potentially be harmful for democracy. As Bartolini and Mair (1990, p.33) argue, volatility is a system property, in the sense that it affects the political and organizational strategies of party leaderships. Uncertainty is an essential aspect of democracy (Przeworski, 2003). If electoral change was rare and there was virtually no uncertainty over the result of elections, parties would have very little incentives to behave responsibly. If, on the other hand, electoral results were highly unpredictable even for political actors, the latter might perceive that nothing they could do would avert an eventual loss of power, which would arguably lead to rent-seeking strategies or the development of mechanisms such as corruption, vote-buying or clientelism that reduce uncertainty by endangering the quality of democracy. This, indeed, highlights the importance of understanding the dynamics of electoral instability.

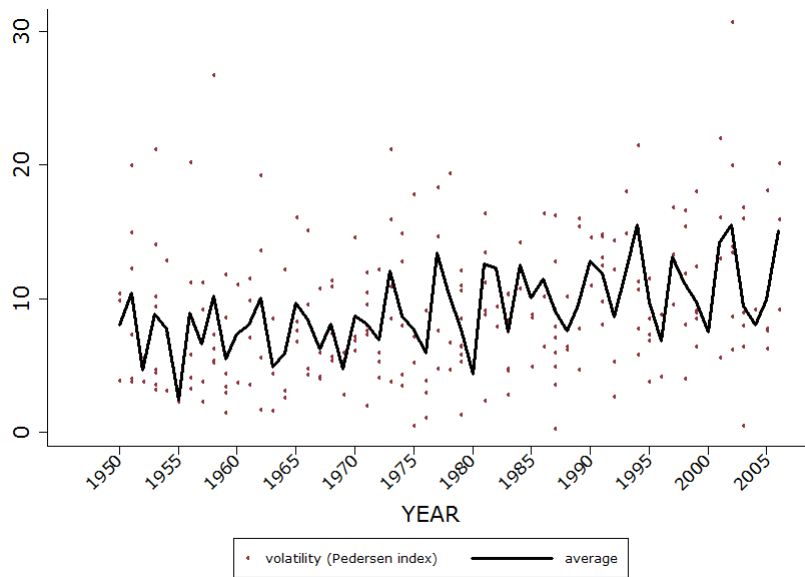
Extreme levels of electoral change can be found in most of the countries that transitioned to democracy in the last two decades, especially those in Latin America and Eastern Europe. But it is not necessary to look at new democracies to see unexplained patterns of electoral change. In recent decades, volatility has significantly increased in Western European established democracies that appear to no longer represent the pic-

ture of tremendous stability that was once depicted by Lipset and Rokkan (1967). One of the first scholars to have acknowledged this trend was Pedersen (1979), whose seminal article on the topic soon became one of the most cited in political science. Pedersen's argument of an increasing trend in volatility was strongly criticized by other scholars. Bartolini and Mair (1990), and Mair (1989, 1993), took the whole period between 1885 and 1985 to show that, from a longer time perspective, elections in the 1970s and at the beginning of the 1980s were rather stable. In a similar vein, Drummond (2006) argues that it is the stability of the first decades after the Second World War that stands out as exceptional, although significant increases in instability are found since 1970 affecting both new and established parties in Western Europe. Data from the 1980s, 1990s and 2000s have come to confirm the trend foreseen by Pedersen. Concerns about record peaks of volatility becoming increasingly frequent in Western Europe have been expressed in recent years even by those who were skeptical at first (Mair, 2005, 2008). And higher peaks have come hand in hand with a steady increase in volatility from the 1980s onwards. This trend is evident in Figure 1.1, which shows the levels of electoral volatility in Western European established democracies since the 1950s, as calculated by the Pedersen index (Pedersen, 1979), and the average over time.¹ The apparent increase over time is statistically significant and has involved an average yearly growth of .08 points of extra volatility since the 1950s until the 2000s (see Table 1.4 in Appendix). This implies that, by the year 2000, 4% more votes changed hands in an average Western European election compared to 50 years before.

In a context of moderate levels of change in election results such as Western Europe, rising volatility is very important because of the possi-

¹The source of this figure is Peter Mair's file of electoral volatility. The countries included are Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom. Figures exclude Southern European countries that transitioned to democracy in the late 1970s (ie. Greece, Spain and Portugal), as well as the first election of the Italian Second Republic, which took place in 1994 after a party system meltdown.

Figure 1.1: Electoral volatility in Western European established democracies



ble implications that it might have from the perspective of voters. That the decline of cleavage politics is behind the increase of volatility in recent decades has been pointed out by scholars since the end of the 1980s (see Crewe and Denver, 1985; Dalton et al., 1984; Franklin et al., 1992; Pedersen, 1983). There is, however, no consensus as to the consequences of this on vote instability. For some, the decline of political cleavages has not led to a complete particularization of the vote but to the reinforcement of other structuring elements, particularly the left-right divide. From this perspective, new and cross-cutting issues do indeed play an important role in predicting voting behavior, but their effect is limited to the short term. With the passage of time, most of those issues tend to become

extensions of the left-right ideological conflict, which has emerged as the fundamental factor structuring political competition in the present day (Carmines 1993, p.156; Franklin 2009, p.432). Others, however, have envisaged consequences of rising volatility that go far beyond simple changes in the terms of competition. Dalton (2004, p.32), for example, relates it to fallen levels of party identification, and suggests that there is a “strong sign of the public’s affective disengagement from political authorities”. In a similar vein, Mair (2008) argued that increasing levels of volatility are a signal of new challenges to party government. In his view, “the left-right divide, even in its simplest Downsian form, is now finally losing coherence” as parties tend to collude and converge after having shared office, programmes and voters (Mair, 2008, p.229). Volatility may, therefore, be reflecting higher levels of political detachment. Thus, even if voters still tend to line up behind political parties, “who these voters are, or for how long they might remain aligned, becomes less and less predictable” (Mair, 2008, p.222). Zelle (1995), on the other hand, claims that switching should be understood as a protest reaction rather than as a consequence of social dealignment. But, in a context of rising volatility, it is certainly not difficult to see the connection between protest and some kind of dealignment or, perhaps, general dissatisfaction. Should we then understand that rising volatility is the outcome of a failing party system and a more politically disengaged electorate? Or does it only involve changes in political competition and in the behavior of voters that have no further consequences for democracy? On which basis can we thus explain voter instability? And what is its relationship with changes in election results?

1.2. Approaches to volatility and their limitations

Electoral volatility has received attention from different perspectives, but efforts to bring all of them together are virtually non-existent. The main advantage of net volatility as an indicator is that it can be obtained for a great number of countries and elections, which allows for large-n

comparative analyses. Thus, most of the comparative research on volatility that has been published takes this approach and focuses on volatility at the aggregate level only (eg. Bartolini and Mair, 1990; Converse, 1969; Mainwaring and Zoco, 2007; Mair, 1993; Pedersen, 1979, 1983; Roberts and Wibbels, 1999; Rose and Urwin, 1970). This line of research has attempted to explain volatility by emphasizing the role of variables such as the electoral system and parties' socio-organizational bounds (Bartolini and Mair, 1990; Pedersen, 1983; Roberts and Wibbels, 1999), the timing of democratization and the party system (Mainwaring and Zoco, 2007; Przeworski, 1975; Tavits, 2005), patterns of mobilization (Huntington, 1968; Przeworski, 1975), political cleavages (Heath, 2005; Tavits, 2005) or even economic voting (Remmer, 1991; Roberts and Wibbels, 1999; Tavits, 2005). It is striking, though, that most of the research on net volatility is grounded upon assumptions that concern the behavior of individual voters but are only tested with indicators of aggregate change in election results.

Research dealing with individual-level volatility might prove more useful in order to directly test hypotheses that concern vote-switching, but comparative work is extremely scarce. On the whole, research at the individual level has been fruitful in bringing up some of the possible factors that explain switching, but it tends to be limited to one particular election or, in some exceptional cases, a handful of elections in one or a couple of countries (eg. Butler and Stokes, 1974; Campbell et al., 1964; Converse, 1962; Crewe and Denver, 1985; Evans, 1999a; Keith et al., 1986; Key Jr., 1966). Moreover, research at the individual level tends to take a very limited approach in that most of it attempts to explain switching between particular parties and not vote-switching in general. Thus, previous research has failed to provide evidence on how factors at a higher level than the individual voter may affect switching. This constitutes a major gap in the literature, as the relation between political demand and supply has been claimed to be a key element of volatility (Tavits, 2008a). It, therefore, looks like efforts to explain switching in a dynamic way are more often found among scholars working with net

volatility than among those who could actually provide direct proof of how the mechanisms work at the individual level.

Surprisingly enough, most of the comparative work published on vote-switching comes from the theory of second-order elections (SOE), first developed by Reif and Schmitt (1980) to account for the behavior of voters across national and European Parliament elections. A whole body of literature that studies second-order elections has focused on what has sometimes been addressed as quasi-switching, that is vote switches that occur between national and European elections (see, for example Reif and Schmitt, 1980; van der Eijk and Franklin, 1996; Clark and Rohrschneider, 2009; Schmitt et al., 2009). However, in the context of SOE, researchers are mostly interested in differences between first and second-order elections that may lead voters to switch rather than in the mechanisms of volatility as such. Moreover, as elections in this body of literature are essentially different in nature, many of their findings may not be directly applied to vote-switching between national elections, which is the object of study here.

It seems striking that research on electoral change is so scarce and that comparative work focusing on the micro-mechanisms of volatility is virtually nonexistent. This thesis is an attempt to take a first step in this direction, and aims to overcome the limitations of previous studies in several ways. First, it links gross and net volatility to show, from an empirical point of view, how and to what extent different types of behavior actually translate into changes in election results. Thus, it first demonstrates that switching voters produce by far the largest proportion of net change, which justifies the deeper look into the mechanisms of vote-switching in the rest of the chapters. The thesis fills a gap in the literature on vote-switching, as it provides a comparative account with data from dozens of elections in six different countries. But it also contributes to the literature on net volatility in that it tests with data at the individual level several variables whose effect on vote-switching has often been hypothesized in aggregate-level research. Building upon Butler and Stokes (1974), I consider electoral change as a dynamic and cumulative pro-

cess. Thus, individual-specific factors are first employed in Chapter 3 to explain the development of vote stability within the individual voter. Together with these, measures of individual affinities to different parties, the characteristics of the latter and election-specific variables are then added to give an overall account of vote instability and its variation across elections in Chapter 4.

Before advancing any further argument, let me first turn to review the different definitions of volatility and voter instability that have been used in the literature and the way in which this will be operationalized in the rest of the chapters.

1.3. Electoral volatility: definition and operationalization

In spite of being one of the most recurrently used terms in political science, there is not a single definition of ‘electoral volatility’. Moreover, scholars often talk about swinging, vote-switching, volatility and other related terms as if they were interchangeable. Most of the time, however, they are referring to different concepts, which has only contributed to the confusion in the field.

The first thing that the term ‘volatility’ brings to mind is the idea of change, and this is precisely what all definitions of electoral volatility have in common. Be it rapid or slow, predictable or unpredictable, for the better or for the worse, electoral volatility involves changes that occur in the support received by the different parties when elections take place. Volatility may, however, be defined on the basis of two different elements: individual-level change and aggregate level change.

Let us first start with the definitions of change that regard the individual voter. The main indicator of vote instability that is found in the literature is that of vote-switching – or ‘party switching’, in the terminology of Butler and Stokes (1974, p.332)–, which is defined as the “tendency of voters not to choose the same party as in the last election” (Lane and Ersson, 1999, p.124). It is worth mentioning that many authors have

used the term ‘gross volatility’ (eg. Lane and Ersson, 1996, 1997; Norris, 1997; Pedersen, 1997; Jungerstam-Mulders, 2006) to refer to the proportion of switching voters in a particular election. Thus, strictly speaking, gross volatility refers to aggregate vote-switching, while the latter refers to the particular behavior of voters that switch parties.² There are other possible indicators of vote instability at the individual level besides vote-switching. Butler and Stokes (1974) mentioned two of them: ‘overall volatility’ and ‘total volatility’. Overall volatility is estimated taking all eligible voters into account. That is, in addition to vote-switching, it also includes voters that change from voting to non-voting or the other way around. Total volatility, on the other hand, adds to overall volatility the effect of generational replacement in the electorate, produced by the substitution of deceased voters with newly eligible voters. Although the three concepts are aimed at measuring change, total and overall switching put together types of behavior that might, in principle, respond to different mechanisms. This has not prevented scholars from using them as dependent variable, and so it is not rare to see research where switches between parties and between voting and non-voting are put together (see, for example, Evans, 1999a). Lane and Ersson (1997, p.182) find the three indicators to be highly correlated, but argue that there are reasons to believe that estimates of ‘total volatility’ are less reliable.

In dealing with voter instability many scholars have built upon the concept of the swing voter, defined as an individual who fluctuates between two parties. This definition is clearly influenced by two-party systems, particularly the US, where voters who swing between the Democrats and the Republicans are decisive in many elections. There are different approaches as to how swing voting should be defined and measured. For some, the concept is basically similar to that of vote-switching, swing voters being those individuals who have actually voted for a dif-

²In what follows, I will only refer to switching between national elections, even if vote-switching may also take place between elections of a different kind - eg. local and regional, local and national, national and supranational, regional and supranational, and so on and so forth.

ferent party in consecutive elections (Boyd, 1985; Butler and Stokes, 1974; Campbell et al., 1964; Converse, 1962; Keith et al., 1986; Key Jr., 1966). Others, however, have argued in favor of alternative definitions. Swing voters have, thus, been defined on attitudinal grounds instead of on the basis of their actual behavior. For some scholars, swing voters are those with a weak partisan preference, who are located somewhere in between the two major parties (Dixit and Londregan, 1996; Mayer, 2007). Others have instead referred to the political independents when talking about swing voters (Dix and Santore, 2003), while Lindbeck and Weibull (1987) and Riker (1982) opted for the term ‘marginal voters’, which refers to individuals that have some chances to switch, regardless of whether or not they have ever done so.

In this thesis, I purposely avoid using the term ‘swing voter’, as it has important conceptual flaws. First of all, it brings to mind the image of voters who are constantly switching from and to different parties. Swing voters are often considered to be individuals without strong party attachments who keep changing their vote between two given candidates or parties for most elections. Thus, most references to swing voters are exclusively focused on how the latter are affected by short-term factors. For some, they represent the stereotype of rational voter, who is free from other constraints and capable to only consider the maximization of her individual marginal utility at each election (Aldrich, 1993; Key Jr., 1966). Indeed, if voters only use retrospective or prospective evaluations when deciding their vote (Fearon, 1999; Fiorina, 1981; Manin et al., 1999), then swinging should certainly be a more appropriate term for those who switch parties. Even though swinging is more likely among switching voters than among those who stick with a party (Key Jr., 1966), this does not imply that the opposite is true – ie. that most switching voters are swing voters as well. The term vote-switching does, however, not entail any such assumption. Thus, from an individual-level perspective, volatility will be defined here in terms of actual behavior, and even if some voters will be claimed to have higher chances to change their vote, the dependent variable will be measured on behavioral grounds only.

In the literature, the term ‘volatility’ as such is often used to name aggregate indicators of change. There is not a single measure of this kind of aggregate volatility (see, for example, Ascher and Tarrow, 1975; Przeworski, 1975; Rose and Urwin, 1970), but the most popular one was introduced by Pedersen (1979), who defined it as “the net change within the electoral party system resulting from individual vote transfers”. Pedersen built upon the work of Rose and Urwin (1970), Ascher and Tarrow (1975) and Przeworski (1975), and suggested the following formula to calculate volatility:

$$\text{Volatility } (V_t) = \frac{(\sum_{i=1}^n |\Delta p_{i,t}|)}{2},$$

where volatility (V_t) may be interpreted as the gains of all winning parties in the party system or, symmetrically, the losses of all losing parties.³ The subscript i stands for every party, t for the time point – here, election years –, and, therefore, $p_{i,t}$ corresponds to the percentage of votes gained by party i at election t . In the light of this definition, it is perhaps more correct to name this indicator as ‘net volatility’ rather than ‘aggregate volatility’ or simply ‘volatility’. At the end of the day, individual-level volatility may also be computed as an aggregate measure to compare, for example, the proportion of switchers across elections.

In this thesis, ‘net volatility’ is operationalized as explicated above. However, there are other variations of the Pedersen index present in the literature. A first variation is ‘seat volatility’, which is calculated from the percentage of seats in the parliament that change hands between elections (Lane and Ersson, 1997, p.183). As dependent variable, ‘seat volatility’ is not useful for the purpose of this study because it is clearly contaminated by the effects of the electoral system. Furthermore,

³Note that changes in the party system pose no particular problem for this formula. Parties that disappear are losing parties, while new parties are considered winning parties.

seat volatility makes it even more complex to understand volatility as the translation of individual behavior into net change. Bartolini and Mair (1990) suggest another modification of the Pedersen index that consists in adding abstention as another party. The theoretical advantage of this is that it would enable us to see overall changes also in terms of people who switch between voting and non-voting or vice versa. In my view, this modification would obscure even more the analysis of change. Abstention is an extremely broad and heterogeneous category. The fact that non-voters do not express their preferences by choosing a party does not mean that they belong in some kind of neutral category aside from any of the existing alternatives. Using an aggregate measure that puts everything together may, thus, not be the best way to approach the contribution of different mechanisms to electoral change. On top of this, adding voting and non-voting has the undesirable consequence that the resulting measure will no longer correspond to the gains or losses of parties in the system, which makes it even more confusing to interpret.

Other modifications of the Pedersen index that have been suggested affect the formula itself or the elements therein. Bartolini and Mair (1990) calculated volatility within and across ideological blocs, considering parties of similar or close positions in left-right terms as a single party in order to test their hypothesis that most switching voters do not cross ideological barriers. In contrast with their suggestion to include non-voting in calculations of net volatility, which they did not bring into practice themselves, indices of inter-bloc and intra-bloc volatility were well received in the literature and have been used by a number of scholars (eg. Arter, 1999; Montero, 1999; Evans, 2002). As useful as these indicators may be for researchers wanting to describe different patterns of change, they do not seem appropriate for the aim of this study. For one thing, I am interested in studying electoral change as such, and not only the change that takes place within or between different ideological blocs. After all, even if all the volatility observed was only inter-bloc, that would still imply that there are a number of voters changing their vote between parties, which indeed deserves an explanation.

Another question concerns how many and how big are the parties that should be used to calculate the Pedersen index. In some countries, the number of parties that run in elections and obtain a small percentage of votes may be incredibly large. Not including these parties might, therefore, produce an underestimation of actual volatility. In the literature, as well as in many electoral reports, small parties are usually included in a category labeled as ‘others’ which sums up their vote share. It is true, though, that the total contribution of parties included in the ‘others’ category tends to be small. Sometimes, small parties in this category are taken as a whole in order to calculate the Pedersen index, while on other occasions all these parties are simply ignored. Bartolini and Mair (1990, p.284) show, however, that adding or not parties in the ‘others’ category yields very marginal differences in the Pedersen index. Nevertheless, I opted for including all the parties running in elections as long as information on their specific vote share was available. Small parties will be, thus, added as individual parties except when either official results or survey data put them together under the label ‘others’. In this case, ‘others’ will just be considered as another party, which still makes it possible to identify switches between the parties included in this category and the rest of alternatives.

Before moving on, it is worth mentioning that net volatility is not the only aggregate indicator of electoral instability in the literature. Rose and Urwin (1970), for example, defined other indicators of instability, such as elasticity, variability and persistence of party support. The concept of elasticity of party support, which resembles Ascher’s (1975) concept of ‘fluidity’, is defined as the total pool of voters that might eventually be prone to change from and towards a given party. By contrast, Ascher and Tarrow (1975) separated net change from total change, the latter resembling the definition of ‘gross volatility’ that was explained in the first part of this section as it measures the aggregate proportion of voters that switch parties between two elections.

This thesis will focus on net volatility as an indicator of change in election results and on vote-switching as an indicator of voter instabil-

ity. All indicators of volatility, these two included, have both advantages and shortcomings. I now turn to explain how this affects the dependent variables employed in this research.

1.4. Problems and limitations of net volatility and vote-switching as indicators of voter instability

When Pedersen (1979) suggested his index, he was actually not interested in individual switches but in providing a single-number quantitative measure that made it possible to study intra-country changes in the party system. This has, however, not prevented scholars from developing hypotheses regarding vote-switching in order to be able to explain the causes of aggregate change. Pedersen himself acknowledged this when, twenty two years after his seminal article, he wrote: “[i]f I was to write another article about electoral volatility today, I would probably give more attention to a topic which was hard to deal with systematically in 1978 - the relationship between ‘aggregate volatility’ on one hand and, on the other, events at the level of the individual voter, ‘individual level volatility’ or ‘Gross Volatility’” (Pedersen, 1997).

The main problem of net volatility is that it may constitute a very crude indicator of changes that occur at the individual level. Indeed, Pedersen’s definition of volatility as resulting from individual vote transfers is intentionally ambiguous, because net volatility may be produced by ‘transfers’ that may have nothing to do with vote change. Changes in election results may be caused by switching voters, demographic changes in the electorate and individuals who switch between voting and non-voting or vice versa. Aggregate measures are, however, worthless in order to clarify the relevance of these three elements.

Scholars using indicators of net volatility as dependent variable must rely on uncertain assumptions regarding the behavior of individual voters. Net volatility may be considered to be the “minimal proportion of the electorate that must have shifted their vote given the observed aggregate change”, as Przeworski (1975) does, but such an assumption necessitates

from the presence of different conditions in order to hold. For one thing, it is necessary that there is zero change in the electorate between one election and the next. Only in the absence of generational replacement and differential turnout could we be certain that aggregate volatility reflects the minimum probability that a random individual voter has voted differently in two consecutive elections (Rattinger, 1997). And even if such assumptions held true, aggregate data would not enable us to dig into the micro-mechanisms of change. For this, it is essential to turn to measures of individual level change.

It seems clear that the aggregate nature of net volatility makes it difficult to use this indicator as a surrogate for voter instability. But how can we then deal with the micro-mechanisms of electoral change? Instead of building upon aggregate indicators, we could instead try to focus on the individual voter. For this, it is first necessary to assess which of the possible individual-level indicators of change is more relevant for understanding volatility. As mentioned, the most common indicator employed in the literature is vote-switching, but in order to focus exclusively on it we must first be sure that switching voters have a prevalent role in bringing about net volatility. Moreover, as switches in opposite directions may cancel out one another, it is important to investigate to what extent a better knowledge of the mechanisms leading voters to switch may also serve us to explain changes in election results. Understanding the process through which switching is translated into net volatility is, therefore, essential in order to assess its validity as an indicator of electoral change.

Indeed, vote-switching as an indicator has a shortcoming that net volatility does not have. Vote-switching cannot be directly observed, which is why we have to resort to surveys in order to study this phenomenon. To be sure, electoral surveys are very limited instruments and have different problems such as memory errors and missing data, among others. The way in which some of these problems are dealt with here is explained later in this chapter. But before moving on to this part, let me first set out the main arguments of the thesis and the way in which the following chapters will proceed.

1.5. The arguments of the thesis

1.5.1. Chapter 2: from individual change to net volatility

As argued, net volatility provides very little information with regard to the individual-level dynamics leading to aggregate change. Volatility is the result of three different components: switching voters, differential turnout and generational replacement. However, the fact that there is canceling-out both within and between the three components makes it difficult to assess the way in which they translate into volatility and which of them, if any, is prevalent. This is the main aim of Chapter 2.

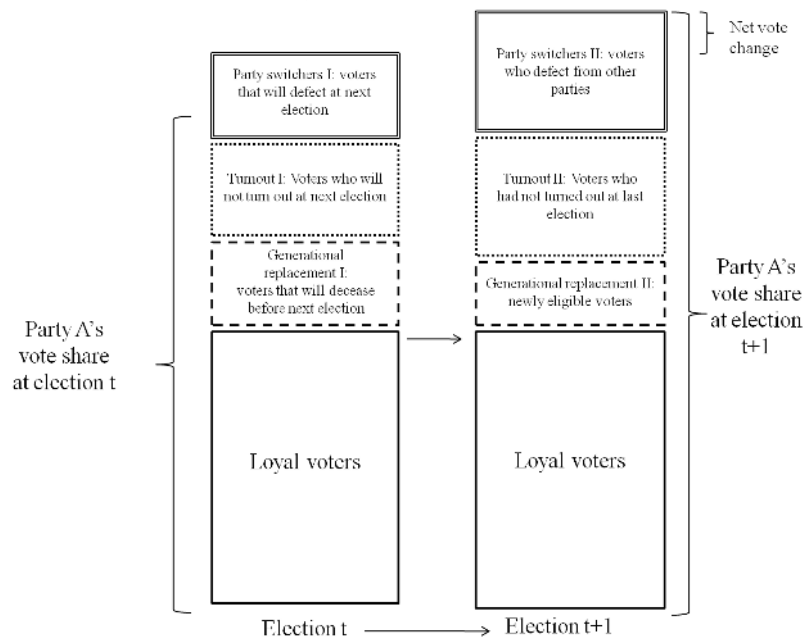
It is striking that the majority of research at the aggregate level assumes net volatility to be driven by changes in the number of switching voters and by political mobilization in a rather vague fashion (eg. Bartolini and Mair, 1990; Mair, 1993, 1997; Pedersen, 1983; Putnam et al., 2000; Remmer, 1991; Roberts and Wibbels, 1999; Heath, 2005; Madrid, 2005; Tavits, 2005; Mainwaring and Zoco, 2007; Bischoff, 2012). The extent to which these two factors really lead to net volatility, as well as the possible influence of generational replacement, are matters that this body of literature has paid virtually no attention to. Butler and Stokes (1974, p.185) showed, however, that “electoral change is due not to a limited group of ‘floating’ voters but to a very broad segment of British electors”. Indeed, that electoral change may be provoked by other mechanisms rather than vote-switching has been underlined by a number of scholars. As Przeworski (1975) points out, electoral volatility might well be an indicator of the difference in the political preferences of new voters compared to older ones. Insofar as young voters’ preferences differ from their older counterparts’, generational replacement will have an important influence on volatility that might, in fact, provoke sustained changes if, as argued by some scholars, voters get ‘locked down’ in their preferences with the passage of time (Converse, 1969; Miller and Shanks, 1996; Dinas, 2010). Generational replacement has indeed been shown to play a major role in massive political realignments in periods such

as the New Deal in America and the post-World War II elections in the UK (Andersen, 1979; Franklin and Ladner, 1995). But it is not necessary to focus on massive realignments to realize the contribution that it may have on election results, even in the short term. Other scholars have also highlighted the role of differential turnout as a catalyst of change (eg. Bartolini and Mair, 1990; Butler and Stokes, 1974). Campbell et al. (1960) coined the term 'peripheral electorate' to refer to those voters that only participate in some elections and whose erratic behavior may undoubtedly affect election results. For Boyd (1985, p.521), "the potential effect of abstention on election outcomes is quite high, even in countries with high voting rates", but the question of whether or not this potential is generally translated into an empirical pattern has been contested. Thus, while some scholars have found 'switching by abstention' to be the more common of the inconsistent vote patterns (Särilvik and Crewe, 1983), others have claimed that its effect is usually much smaller than that of switching between parties (Boyd, 1985; Butler and Stokes, 1974). In the same vein, the influence of turnout on election results has been claimed to be negligible both in national (Bernhagen and Marsh, 2007) and in European Parliament elections (van der Eijk and van Egmond, 2007).

A graphical illustration of how the different components of volatility operate at the party level can be seen in Figure 1.2. As can be appreciated, net change at the party level is the sum of the net change (that is, the difference between losses and gains) produced by all the components. This implies that different combinations of the three components may produce exactly the same result in terms of net change, hence the difficulty of making assumptions as to what electoral volatility really stands for without a deeper analysis.

It is important to bear in mind that when individual changes turn into net change, there is always some amount of canceling-out. Thus, switching voters that defect from a party partially cancel the effect of those who switch to that particular party. Voters of a particular party who do not turn out at the next election also cancel the effect of for-

Figure 1.2: Components of electoral change in a hypothetical example



mer non-voters that decide to vote for that party. And, lastly, supporters that pass away cancel out the support coming from newly eligible voters. However, canceling-out does not only take place *within* each of the components of volatility: there is also some amount of canceling-out that occurs *between* components. In order to understand this, it is necessary to remind the formula of net volatility (Pedersen index) and to look at the hypothetical scenario in Table 1.1. Losses at the party level coming from one component can be compensated with gains coming from another component and vice versa. Thus, for example, the net effect of switching voters in the scenario depicted in the table provokes a loss of 2% of the votes for Party B, but this loss is compensated by a 5% of net gains coming from differential turnout. Due to canceling-out between components, net volatility is not the simple sum of the net effect of the three components at the election level. This can be also been observed in Table 1.1, where the sum of intra-component net volatilities is 14, while the actual amount of net volatility is 6.

In light of this, where should we start from in order to understand electoral change? Is there any component whose influence on net change is clearly prevalent? Or should we understand that all of them have the same weight? And to what extent can we derive individual-level changes from quantities that are knowable without survey data? To date, there is no systematic empirical evidence that may help us answer these questions. The extent to which different mechanisms affect the electoral fate of parties and their relative contribution to net volatility have never before been reported in comparative work. Chapter 2 aims to fill this gap by providing empirical evidence on how the three elements that have been mentioned here affect electoral change. It elaborates on the different types of canceling-out and how they may impact on each of the components, developing a theoretical argument that explains why switching is expected to be the most important source of election change. It then employs data for six Western European established democracies during a time range of more than 40 years in order to demonstrate this. Following this, the chapter also shows how gross switching may be used to explain

Table 1.1: An illustration of the effect of canceling out between components on electoral volatility

	vote-switching	differential turnout	generational replacement	party level change
Party A	6	0	-3	3
Party B	-2	5	0	3
Party C	-4	-5	3	-6
Intra-component net volatility:	6	5	3	
	Total volatility:			6

Note: Figures symbolize losses or gains of vote share (in percentages).

at least 70% of the variance of net volatility in those elections.

The arguments and evidence in Chapter 2 justify a deeper look into the mechanisms of vote-switching. However, as argued, the fact that net volatility may be approached by focusing on switching is not sufficient reason to take former as a surrogate for voter instability. On the contrary, survey data is required in order to deal with the mechanisms of individual-level change. This is the aim of the second part of the thesis (ie. chapters 3 and 4), which I now turn to.

1.5.2. Explaining vote instability at the individual level

Why focus on vote-switching?

The fact, demonstrated in chapter 2, that vote-switching stands out as the main source of electoral change justifies that special attention be given to the factors that impact on vote instability. Therefore, Chapters 3 and 4 focus exclusively on switchers, leaving aside four other categories of individuals: newly eligible voters, deceased voters, mobilized voters who switch from non-voting to voting, and demobilized voters who take the opposite path.

Apart from its relevance in terms of political change, vote-switching is also an important phenomenon to study because it reflects many of the contradictions in the voting behavior field. There is an evident tension between how a rational voter should behave in response to short-term political stimuli (Fearon, 1999; Fiorina, 1981) and the fact that people tend to develop rather stable preferences over time (Converse, 1969, 1976; Beck and Jennings, 1991; Jennings et al., 2009; Krosnick and Kinder, 1990; Carlsson and Karlsson, 1970). From the point of view of the rationalist theories, voters are claimed to switch or not depending on whether the utility that they get from every possible alternative has changed. Thus, at every particular election, voters are expected to assess all the available alternatives and pick the one that maximizes their utility, sticking with the same party only in the case that there is no other alternative

that suits better their interests and concerns. From the point of view of the second group of authors mentioned earlier, though, most people are expected to stick with their former choice. Preferences change much less than it would be expected in the light of political events and tend to crystallize over the years. Therefore, switching should be a rather residual phenomenon for this theory. I, however, will neither assume that people are free from their former decisions nor that switching is a marginal type of behavior. The world outside is neither one of complete change nor one of complete stability. Switching may be a minority behavior, but the number of switches in an average election is far from negligible and its impact on election results may be very important indeed.

In the light of the data employed in this thesis, the proportion of voters who switch between elections is not small (Table 1.2). The average for the sample of elections studied here is 22%. That means that almost one fourth of the individuals that turned out in two given consecutive elections changed their vote on the average. Of course, the percentage of loyal voters is much higher, varying between 75% and 90%. But the importance of vote-switching comes from the potential of changing voters to bring about electoral change. Furthermore, these figures show a lot of variation that has to be accounted for. In most election years after 1990, switching voters were about one third of the individuals who cast a vote in two consecutive elections, reaching the maximum level of 45% in the 2002 Dutch election. Moreover, the increase in electoral instability that many authors expected on the basis of changes in net volatility is even more evident when the proportion of switching voters is looked at over time. Thus, this table tells us two fundamental things. For one thing, loyal voters tend to be pervasive. For another, switching voters are, on average, more than a marginal phenomenon, and their number may even increase at times. Both short-term and long-term factors might be operating here, and so, rather than total adherence to one model or the other, they all should be taken into account in order to explain change.

Table 1.2: Percentage of switching voters (among individuals who voted in both elections) in the period of study

GREAT BRITAIN														
YEAR	1964	1966	1970	1974(febr)	1974	1979	1983	1987	1992	1997	2001	2005	2010	
% switchers	14.89%	10.27%	12.09%	21.63%	15.55%	19.61%	23.46%	19.76%	18.47%	24.16%	22.04%	26.95%	27.19%	
DENMARK														
YEAR	1971	1975	1977	1979	1981	1984	1987	1988	1990	1994	1998	2001	2005	2007
% switchers	12.85%	23.37%	20.13%	16.59%	19.51%	19.50%	17.94%	14.90%	20.54%	23.70%	29.23%	30.68%	27.04%	25.11%
GERMANY														
YEAR	1965	1969	1972	1976	1980	1983	1987	1990	1994	2002	2005			
% switchers	14.21%	21.48%	20.65%	18.45%	14.18%	14.79%	18.60%	27.17%	21.90%	23.72%	30.74%			
NETHERLANDS														
YEAR	1971	1972	1977	1981	1982	1986	1989	1994	1998	2002	2006			
% switchers	24.46%	23.59%	23.68%	23.44%	20.48%	23.57%	19.30%	31.89%	31.25%	44.85%	37.45%			
NORWAY														
YEAR	1965	1969	1973	1977	1981	1985	1989	1993	1997	2001	2005			
% switchers	14.00%	14.25%	24.45%	15.81%	16.25%	15.83%	27.26%	30.84%	30.30%	31.95%	35.80%			
SWEDEN														
YEAR	1960	1964	1968	1970	1973	1976	1979	1982	1985	1988	1991	1994	1998	
% switchers	11.45%	12.83%	13.90%	15.43%	15.95%	17.08%	17.09%	18.84%	19.37%	20.41%	29.58%	28.13%	28.90%	

Chapter 3: explaining instability within the individual

When studying electoral behavior, we have to think of voters as a group of people with different characteristics who are exposed to a common set of factors. What parties do, what they stand for, how many and how different they are, as well as the rules of the game, are all factors that may vary across countries and over time and, nevertheless, do not have the same effect on all voters. The same stimuli that make some voters switch may not provoke the same response in others. Thus, the first step to be taken must be to focus on the process that generates vote stability within the individual.

I start out with the assumption that voters do not change their vote at random. Even when they switch, they do so on the basis of their party preferences and pick parties that, for one reason or another, they feel attracted to. It is, nevertheless, important to bear in mind that electoral change is a dynamic and cumulative process. The process of voters' preference formation is extremely important in order to assess how, why and when they change their vote, and who is more likely to do so. Regardless of what different theories of democracy may say, voters are not completely free to evaluate parties. On the contrary, they are tied by their past behavior, which constrains the decision to switch and determines their future voting behavior to a certain degree. Voters carry memories of their past choices into the voting booth, and use prior behavior as a standard against which to evaluate current choices (Alwin and Krosnick, 1991; Nadeau and Mendelsohn, 1994; Zuckerman, 1989). What the effect of past vote suggests is that voters first assess their party against others before considering switching. Thus, past choices generate some kind of inertia or 'immunization' effect – as Butler and Stokes (1974) liked to call it–, which does not prevent change but makes it increasingly less likely for voters as they age.

The presence of inertia in human behavior has been justified from different perspectives. In economics, it is common to consider inertia as being a consequence of bounded rationality. Individuals lack time,

effort and attention and, therefore, tend to rely on their past behavior in order to decide their future actions (Simon, 1978). Bounded rationality is, nevertheless, not necessary in order to explain inertia, as it is rational for individuals to stick with the choice that they know more about rather than switch to another whose performance is more uncertain (Chorus and Dellaert, 2011). Be it a rational process or not, inertia translates into voting behavior and its effects, as shown in chapter 3, accumulate over the voters' life course and generate stability.

The idea that electoral behavior stabilizes over time, and therefore that young voters are key instigators of change, is not new. About 40 years ago, Butler and Stokes (1974) reported that older adults were much more likely to repeat their vote than their younger counterparts in Great Britain. This finding has, however, rarely been replicated in later research. Indeed, while scholars from the Michigan school have paid much attention to the effect of age, their interests lay in the stability of party identification rather than in voting behavior itself (Campbell et al., 1960; Converse, 1964, 1969; Miller and Shanks, 1996). For them, stability derives from a psychological process that reinforces party attachments over the life course. Influenced by this, even rationalist scholars have attempted to explain stabilization by resorting to party identification, which they expect to be reinforced with time as a consequence of a decrease in the marginal effect of new information with the passage of time (Achen, 1992, 2002). As useful as party identification may have been to study party choice, attention paid to this concept has in this case been detrimental, as it seems to have overshadowed any other attempt to more carefully study the mechanisms leading to vote stability within the individual, and especially in contexts of multipartism. I seek to overcome this limitation by focusing on party utilities rather than on party attachments. The theory that is employed here concerns the development of preferences within the individual voter with regard to all the possible alternatives that may be chosen. Rather than displaying dichotomous and exclusive attachments to parties, voters are expected to have cardinal utilities for the different parties. This assumption, which

resembles more closely Downs' (1957) theory of voting behavior and has been used, among others, by van der Eijk et al. (1999), van der Eijk et al. (2006), and van der Brug et al. (2007), also seems more appropriate to study change in contexts where voters have more than two possible choices.

Voting is considered in this thesis to be a learning process. Between successive elections, individuals evaluate whether or not expectations about their party's performance have been fulfilled. With the passage of time, people accumulate experience, which molds their preferences and informs subsequent choices. Chapter 3 demonstrates that repeatedly voting for a party affects vote stability in two complementary ways. On the one hand, it affects voters' distribution of preferences, enlarging the gap between the chosen party and the rest. On the other hand, inertia seems to have an additional effect on vote stability. When comparing voters with a similar distribution of preferences, those who have voted for the same party in the last few elections have a significantly stronger tendency to repeat their choice. Thus, repeated vote for a party imposes further constraints on voters' future choices. Moreover, the effect of inertia is claimed to accumulate over time, older voters being much less likely to switch than their younger counterparts. Chapter 3 shows that the effect of inertia is essential in order to understand this process and to account for an important part of the effect of age on vote loyalty.

Chapter 4: explaining voter instability across elections

Political experience explains why most of the individuals that switch parties are young adults and helps us to shed more light on the process of vote stabilization. This is, indeed, a very important part of the process leading to change, but it does not explain by itself why the levels of voter instability change across elections. At the end of the day, voters of different ages are always present in every election and the replacement of the electorate, although important, is probably too slow a process to account for peaks of electoral change.

What is extraordinary about switching is not the fact that it exists, but the amount of variation that is found when different elections or/and countries are considered. Chapter 4 suggests that gross volatility has to be approached through a combination of long-term and short-term factors. Individuals have a tendency to match preferences and behavior, and voting is no exception. Switching will very often be caused by a mismatch between current preferences and previous choice. The question is what triggers the mismatch. We can expect to predict 'normal' levels of switching in a given country by taking only long-term factors into account. The average number of votes that change hands between consecutive elections is a function of voters that are tied to parties on the basis of factors such as their socio-demographic characteristics, ideological stances and tactical reasons. If exogenous political events were rare and structural factors were kept constant, these factors would predict a similar proportion of switchers over the years. In the real world, though, this is almost never the case. Different factors, including the action of parties, may modify the impact of ideological location or even of socio-demographic characteristics on the vote and, thus, explain variations over time.

In the context of volatility, Tavits (2008a) has questioned the idea, assumed in many studies, that electoral change is always a demand-driven process. In her view, volatility responds to changes in the political demand such as party schisms and elite level manipulation of the political supply. This defies the logic defended by scholars who state that volatility leads to the emergence of new parties and the disappearance of the old ones (Mainwaring, 1998; Toka, 1998), or that it increases the supply of parties (Birch, 2003; Mair, 1997). On the contrary, volatility should be seen as a consequence, rather than a cause, of an interaction between demand and supply. Bischoff (2012) takes this argument to the extreme and claims that demand-side factors do not predict voter stability, whereas supply-side factors do. What findings in Chapter 4 suggest is that that is not the case. Variables that respond to interactions between supply and demand do a very good job in predicting the amount of individual change

across elections, although it is also clear that factors that only operate at the individual level would not be able to completely capture this.

Peaks of volatility are provoked by the conjunction of voters and parties with regard to short term factors (Boyd, 1985). In this thesis, it will be argued that voters have a tendency to defect from parties on the basis of these factors, especially when other ideologically close alternatives turn out to be more appealing in these terms. Factors at the party level are very important in order to explain switching. A great deal of vote change is provoked by dissatisfaction with the party supported in the previous national election, and, indeed, volatility has often been linked to retrospective voting and the accountability of governments (Lewis-Beck and Stegmaier, 2000; Bengtsson, 2004). Notwithstanding the strength and the number of arguments supporting the importance of parties, previous research on volatility has very rarely paid attention to the effect of party characteristics. Such effects require a large number of parties, and any one election does not have enough for variations in their characteristics to be brought to bear. I overcome this limitation in Chapter 4 by comparing 37 elections in six different Western European democracies. Thus, in order to explain why the number of switchers varies across elections, variables that account for whether and for how long the chosen party was in office, or whether it was subject to splits, are put together with other variables at the individual level. Effects of the economy will also be taken into account, introducing factors that vary at the level of the election in interaction with party level variables.

Not all increases in volatility come in the form of a single peak, though. Very often, peaks give way to new scenarios where the average level of switching voters in a country does simply change. I claim that, on most occasions, those scenarios are provoked by changes in the party system that modify the way in which voters understand national politics. Again, I will argue that young voters play a significant role in bringing about such changes. Van der Eijk and Franklin (2009) argue that support for new parties is significantly stronger among younger adults. New parties receive the support of new voters and young switchers, but

their emergence may have subsequent consequences for other groups of voters. Dramatic changes in the fragmentation of the party system may lead many voters to update their political preferences and change their propensity to switch. This is a process that, given the effects of inertia on older voters' behavior, may take a couple of elections to arrive at a new equilibrium.

1.6. Data and research design

1.6.1. Case and data selection

The particular scope and data used for this thesis vary across chapters. Panel data are more suitable to study mechanisms that take place in the voters' minds and reflect in their behavior, which is basically the aim of Chapter 3. Unfortunately, the number of longitudinal studies that cover several elections and include a sufficient number of political variables is certainly limited. Thus, when the purpose is to compare across elections and countries, as in Chapters 2 and 4, the only way to do so is by employing cross-sectional data from different national election studies. In what follows, I explain the criteria that have been used in the selection of surveys and countries.

Electoral change in general, and vote-switching in particular, is an area that lacks robust comparative research. Therefore, our knowledge about how vote instability actually works is very limited not only for countries where instability is the norm but also for advanced industrial democracies with moderate levels of volatility. Western European countries present clear variations in volatility over time, and increases have been reported and generated much academic debate. For this reason, it looked like a good strategy to start with these countries and leave for further research cases that might in principle seem more appealing but are much more complicated to study – or at least they may be if the proper foundations have not been laid first.

Political scientists are prone to enlarging the variation in their data

by including additional countries. However, when the goal is to study political change, it may be more appropriate to maximize the number of time-points over which change can be tracked, even though lengthy time-series are available only for a few countries. Thus, the cases that are the focus of this study are established Western European democracies for which a large number of national election studies are available. These are the same six countries that were selected by Thomassen (2005a) for the European Voter project. Surveys from this project were collected and examined, resorting to the original databases when coding mistakes were present. Additionally, more recent national election studies were collected to extend the dataset until the 2000s.³ In total, the whole dataset employed in Chapter 2 contains data for 71 elections in 6 countries over an average time span of 50 years, as displayed in Table 1.3. As will be explained, not all of the elections included in this time span were used in chapter 4, since surveys that did not contained essential independent variables had to be excluded.

The resulting dataset provides sufficient variation over time, but also in terms of the different electoral and institutional settings of the six countries. Great Britain is, at the one extreme, a majoritarian first-past-the-post system. Germany has a mixed-member proportional system, while the other four countries present different levels of proportionality. Among them, the Netherlands is the one with the lowest effective threshold. Similarly, the number of parties differs not only across countries but over time. Even in Great Britain, the party system has become more complex with time due to the presence of nationalist and other minoritarian parties in the parliament. But variations over time are evident in all countries. The number of switchers, on the other hand, shows a steady increase in all the six cases. This increase is also evident for net volatility, although much more noticeably in the Netherlands, Norway

³National Election Surveys were kindly provided by the Norwegian Social Science Data Services, the UK Data Archive, the Central Archive for Empirical Social Research of the University of Cologne, the Dutch Data Archiving and Network services, the Survey Bank of Aalborg Universitet in Denmark, and Statistics Sweden.

and Sweden than in the rest. These characteristics provide further justification for the selection of cases. The six countries also share some commonalities. All of them are parliamentary systems, which enables me to compare national elections of the same kind in terms of importance, an advantage that would not be possible if semi-presidential or presidential systems were included.

One portion of the analysis focuses on just one country: the Netherlands. Several reasons that are explained in more detail in chapter 3 justify the use of Dutch panel data there. Those data are unique in that, in addition to being longitudinal, they also contain a non-ipsative measure of party utilities that was asked for at least two consecutive waves, which enabled me to investigate how preferences change with political experience and the way in which this translates into switching. In addition to this, another important fact justifies the selection of Dutch data: of all the countries analyzed in the thesis, the Netherlands is the one where electoral change has become more extensive during recent decades.

1.6.2. A note on memory distortions in recall questions

As vote-switching is not directly observable, researchers must rely on survey data in order to analyze it. Both panel data and cross-sectional surveys do, however, entail some limitations, and so a note of caution is necessary. In what follows, I explain the cons and pros of using different types of survey data and the consequences that each choice may have.

The use of cross-sectional surveys is a very extended practice in the study of vote-switching. Examples of this are Anderson et al. (2005); Carrubba and Timpone (2005); Clark and Rohrschneider (2009); Dalton (2000); Hobolt (2009); Schmitt et al. (2009) and Trystan et al. (2003). In order to code respondents as switching or not, researchers using these data must attend to vote recall questions that refer to the most recent election and to the previous one. The problem with recall questions, though, is that memory distortions are common and, therefore, some respondents do not provide accurate information on their past behavior

Table 1.3: Countries and elections analyzed

Country	Election years
Denmark	1971 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007
Great Britain	1964 1966 1970 1974 ^(a) 1974 ^(b) 1979 1983 1987 1992 1997 2001 2005 2010
Germany	1965 1969 1972 1976 1980 1983 1987 1990 1994 2002 2005
Netherlands	1972 1977 1981 1982 1986 1989 1994 1998 2002 2006
Norway	1965 1969 1977 1981 1985 1989 1993 1997 2001 2005
Sweden	1960 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998

(a) February. (b) October.

(Weir, 1975; Powers et al., 1978; Van der Eijk and Niemöller, 1979; Cees van der Eijk and Niemöller, 1983; Waldahl and Aardal, 1982, 2000).

To be sure, problems like this are present in both panel data and cross-sectional studies. After all, questions about vote choice in panel surveys are also based on recall and may also be subject to measurement error. As actual information on party choice is impossible to collect, both in practical and in legal terms, there is no easy way to check the amount of measurement error that exists in panel data. What most of the studies do to estimate the amount of error is compare questions that were asked at different points in time (Cees van der Eijk and Niemöller, 1983; Waldahl and Aardal, 2000). In the light of their results, questions that were asked long ago seem more likely to be distorted and therefore subject to error. This is a problem that affects cross-sectional studies more intensely than panel studies and that particularly afflicts scholars dealing with vote-switching who, when using cross-section data, find themselves relying on questions about the party that respondents chose several years ago. As many respondents tend to report current party preference rather than their past choice, recall data of this kind are likely to understate the actual proportion of switching (Waldahl and Aardal, 1982, 2000). Thus, data based on national election surveys might show a picture according to which voting behavior seems more stable than it is in reality. Boyd (1985) argues that the practical consequences of this problem when studying switching are not severe. However, it is worth bearing this in mind as a note of caution.

Unfortunately, using panel data to study vote-switching is only possible for a handful of elections and countries, and when the aim is precisely to model the dynamics of change over time or across countries, national election surveys are the only possibility available to date. As mentioned, panel data are employed in Chapter 3, because using cross-section surveys seemed more problematic when the aim is to infer the mechanisms that take place within the individual. After all, memory distortions have been shown to be more prevalent among those whose preferences have changed in the past elections (Cees van der Eijk and Niemöller, 1983,

p.123-128), which is precisely what the chapter focuses on. Chapters 2 and 4, however, do rely on cross-sectional surveys.

The debate at this point is whether researchers should use the best data that are available for their scientific purposes, even if measurement error problems have been identified, or whether we should simply give up studying some phenomena for which data limitations exist. Schoen (2011) argues that abandoning recall questions would clearly imply the latter in the case of vote-switching, given that panel data are “neither abundant nor without their own problems”. In my view, too, the price of doing so would certainly be too high, at least compared with the possibility to combine the knowledge acquired by analyzing different sources of data, as done in this thesis. Moreover, the practical consequences of under-reported switching for this research is that it will reduce the ability to get significant findings or to be able to match with survey data the gross volatility in the real world – a situation that will only yield false negatives, and which is thus a conservative research strategy. On top of this, it is indeed possible to learn about individual-level mechanisms by using panel data, which are both more suitable and reliable, and then apply what we have learned to study the general dynamics of switching with national election surveys. It turns out that, when compared, findings stemming from several sources complement each other and produce similar results on most occasions. To put it in Schoen’s words, “given real-world constraints, this strategy is likely to improve our understanding of substantive issues without giving up methodological rigor” (Schoen, 2011).

1.6.3. A note on goodness of fit in logit models

Some of the models run in this thesis use logistic regression analysis. It is well known that these models do not have a measure of goodness of fit such as the R^2 in OLS regression, which represents the percentage of variance explained by the model. This is true for both simple logistic analysis and for hierarchical models such as those that are used in Chap-

ter 4. In the literature, Akaike Information Criterion (AIC) (Akaike, 1974) and Bayesian Information Criterion (BIC) (Schwarz, 1978) are frequently reported goodness of fit measures in hierarchical models.⁴ The two criteria are closely related, although the BIC tends to penalize the number of parameters in the model more strongly. Rather than measures of how well a given model fits the data in general terms, both are indicators to be used as a model selection criterion. They are, thus, useful if the purpose is to compare different models.

Attempts to build a logistic version of the R^2 have not succeeded. There are, indeed, numerous measures of pseudo R^2 in the literature and different approaches to their calculation, but none of them is really convincing (Long, 1997). As a measure of fit, pseudo R^2 's have been strongly criticized. Hosmer and Lemeshow (2000, p.167), for example, recommend not to publish them, since their values tend to be rather small even if the model fits the data well, which is very confusing to say the least. If this is true for logistic regression, it is certainly more difficult to defend the use of pseudo R^2 's in hierarchical models with random effects, and this is why many statistical packages refuse to report them in that case. Here, together with the AIC and the BIC, I include one of such measures as a mere rule of thumb.

In order to calculate the Pseudo R^2 , I used Cox and Snell's (1989) approach, which attempts to measure improvements from null model to fitted model rather than explained variance of the (latent) dependent variable. The formula that was used is the following:

$$\text{Pseudo } R^2 = \frac{(\ln\lambda_n - \ln\lambda_f)}{\ln\lambda_n},$$

In other terms, this pseudo R^2 is calculated as the log-likelihood of the constant-only model ($\ln\lambda_n$) minus the log-likelihood of the full

⁴Both the AIC and the BIC reported in this thesis come from the 'estat ic' command in Stata 11.

model ($\ln\lambda_f$) divided by the log-likelihood of the constant-only model ($\ln\lambda_n$). In the case of a random effects model, however, this measure may yield particularly low values. This is so because for a model to produce a pseudo R^2 of 1 (that is, to have log-likelihood value of zero), the random effect must necessarily be zero. Not only is this very unlikely to occur but also, in that case, there would be no need to use a random effects model at all, as we would be able to perfectly predict variations at the higher level. To the best of my knowledge, there is no way to circumvent this limitation, which should in any case be kept in mind when interpreting the pseudo R^2 .

1.6.4. A note on missing data

Missing data are present in most statistical analyses. Particularly in survey data, it is common to have a certain number of ‘don’t know’ answers or refusals. Until very recently, the most common approach to deal with these cases was to ignore them. That is, most analysts opted for deleting the cases with missing data as if they did not exist. However, this strategy may yield biased results under several circumstances which are common in real-world research (Little and Rubin, 1987; Raghunathan, 2004; Schafer and Graham, 2002). Missing data may, in principle, be distributed in three different ways (see Rubin, 1976, for a complete discussion): missing at random (MAR) if the distribution of missingness depends on observed data but not on missing data; missing completely at random (MCAR) when the distribution does not depend on missing data either; and missing not at random (MNAR) when it depends on both missing and observed data. Rubin (1976) showed that case deletion is only unbiased, although still inefficient, if data are MCAR.

Procedures to deal with missingness are several, but most of them do not do a good job. The two best approaches that are suggested in the literature are expectation-maximization algorithms computed through maximum likelihood estimation (Rubin, 1977; Little and Rubin, 1987) and multiple imputation (Rubin, 1987). Given the constraints of the first ap-

proach in terms of complexity and computation time, most researchers tend to opt for multiple imputation, which, in a nutshell, consists in filling in the missing data with simulated values that are estimated from a set of other variables included in the dataset.

Imputing from a conditional distribution preserves marginal and joint distributions and corrects bias, but only when data are MCAR or MAR. However, in many realistic applications assuming that data are MAR does not invalidate results, as departures from MAR tend not to be not large enough to do so (Collins et al., 2001; Schafer and Graham, 2002). One single imputation is, however, not enough to deal with the problems derived from missingness (Rubin, 1987). When imputing, the fact that some of the cases in the analysis are not real observations but predictions has to be accounted for in order not to understate levels of uncertainty. The solution that Rubin (1987) proposed is to fill in the missing data with several imputed values instead of only one. Imputed values are randomly selected from the distribution of possible values of the missing data given the observed values of the variables in the imputation model. Inferences are then made by combining results across the imputed datasets following Rubin's (1987) rules.

Multiple imputation will be employed in chapter 3 using information from different waves, as is common in longitudinal studies.⁵ As to the number of imputations, Rubin (1987) illustrates that a number between 2 and 10 may be enough in most cases, as losses of efficiency in the estimator relative to an infinite number of imputations are very small. On these grounds, the number of 5 imputations has often been recommended in applied work, although more than 10 imputations are necessary if the proportion of missing cases is very large (Schafer, 1997). In chapter 3, though, the maximum number of missing cases did not exceed 5%, for which 5 imputations seemed a reasonable number. In fact, enlarging the number of imputations did not produce any substantial change.

In chapter 4, single imputation from a conditional distribution was

⁵Details about the imputation models can be found in the corresponding chapter.

employed as an alternative to multiple imputation.⁶ As the computational capacity and time that is required multiplies with the number of imputations, it was not feasible to use multiply imputed data on a dataset that comprises nearly 40 national election surveys. Moreover, some of the steps necessary to build the independent variables required stacking the dataset as a previous step, which basically implies multiplying the number of respondents by the number of parties present at every election. As said, imputing from a conditional distribution yields unbiased results no matter the number of imputations that are computed, with the disadvantage that analyses based on one single imputation understate the levels of uncertainty in the data. Though not as good as multiple imputation, this method outperforms case deletion and any other approach based on deterministic imputation of the missing data (Gelman and Hill, 2006, p.536).

⁶Using the 'ice' command in Stata 11.

1.7. Appendix*Table 1.4: Increasing volatility in Western European established democracies. Time-series cross-section regression with fixed effects by country*

	Net volatility (Pedersen index)
Year	0.0842*** (0.0180)
Constant	6.781*** (0.569)
Observations	245
Countries	16
R ²	0.087
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

CHAPTER 2. DANCING APART, TOGETHER: HOW INDIVIDUALS MOVE WHEN WE SEE ELECTORAL CHANGE

2.1. Introduction

Electoral volatility is a widely used variable in political science and other related disciplines. However, while being a good indicator of how much election results change between two consecutive elections, it is, due to its aggregate nature, a very crude measure that does not allow for the identification of the different types of behavior leading to net change. Research focusing on volatility has largely relied on a set of assumptions that concern the actual relationship between aggregate and individual change. But, due to lack of comparative data at the individual level, those assumptions have never to date been tested. This chapter takes advantage of the development of survey data in the recent decades and aims to show the underlying individual-level mechanisms leading to aggregate volatility.

Scholars working at the aggregate level tend to assume, in a rather general and blurry fashion, that volatility is caused by switching voters and changes in turnout. Nevertheless, volatility may in principle be produced by three different elements: 1) voters that shift parties, 2) voters that fluctuate between vote and abstention, and 3) the generational replacement of the electorate. The actual impact of these three elements and the way in which they translate into net volatility have never been addressed so far. In this chapter, I provide a theoretical and empirical

account of how net volatility is brought about by employing data from national election surveys in six countries (Denmark, Germany, Sweden, Netherlands, Norway and the UK) in combination with demographic data and electoral records. It will be shown that vote switching is, by and large, the most important of the elements leading to net volatility, even if the relevance of the other two elements cannot be taken too lightly. Focusing on vote-switching is, therefore, essential for understanding the dynamics of electoral change. However, the opposite does not necessarily hold true. While aggregate volatility is an excellent indicator of net switching, it is an imperfect instrument to measure individual change. The common assumption that volatility is directly related to the number of switching voters understates the fact that there is canceling out between voters switching in opposite directions and, as a result, change at the individual level cannot be properly inferred from measures of net volatility unless this is taken account of.

This chapter is structured as follows. The next section elaborates on the link between individual and aggregate change and the reasons why switching is expected to be the most relevant of the three elements that may potentially lead to net election change. This is followed by another section that explains the research strategy and the technical issues associated with it, and describes the data. The analysis in the third section is divided in three parts. The first part addresses changes at the party level and provides a test for the empirical importance of the three components of volatility in producing actual change. Findings in the second part support the expectation that most of the net changes observed in election results are produced by switching voters, and this is also the case even before canceling out between the different components is taken account of. Finally, the third part relates gross switching to net switching and volatility. The relationship is shown to be imperfect due to the presence of canceling out. In order to get a better fit, it is thus necessary to account for some of the variables that intervene in the process through which vote-switching turns into election result change. The section then shows how the number of switching voters is more strongly related to

net volatility when the effective number of parties is large. Accounting for this interaction allows explaining about 70% of the variance of net volatility in the sample. The chapter then concludes with a discussion of some of the practical consequences of these findings.

2.2. From individual change to net volatility: the mechanisms

In looking at the relationship between individual and aggregate electoral change, there are two basic questions that arise. What is the empirical impact of different patterns of individual behavior on net volatility? And to what extent is net volatility a good indicator of changes that occur at the individual level? In what follows, I develop several theoretical expectations concerning these questions.

2.2.1. Three individual paths to aggregate electoral change

There are three different types of individual behavior that may lead to electoral change: vote-switching (that is, voters that shift parties between consecutive elections), differential turnout (individuals who shift between vote and abstention or vice versa), and generational replacement (which is produced by the coming of age of new voters and the passing away of others). Even though these three elements are likely to coexist, their individual importance in terms of volatility has never been really assessed in the literature.

Scholars dealing with electoral instability have very often employed net volatility as the main indicator of the former. And when the causes of volatility have been investigated, the literature at the aggregate level has relied on assumptions that have never been tested. An immense majority of studies at the aggregate level take net volatility as a synonym for voter stability (see, for example, Bartolini and Mair, 1990; Mair, 1993, 1997; Pedersen, 1983; Putnam et al., 2000; Remmer, 1991; Roberts and Wibbels, 1999; Heath, 2005; Madrid, 2005; Tavits, 2005; Mainwaring and Zoco, 2007; Bischoff, 2012). Yet what net volatility represents in

terms of voting behavior is never made explicit. Usually, scholars expect different independent variables to correlate with net volatility because they are claimed to modify the levels of switching or to affect mobilization in some unspecified way. When volatility is low, this is often taken as a proof of a very stable electorate, while high levels of volatility is taken to indicate more voter instability. But what is the empirical meaning of volatility from the perspective of voter instability? Are all kinds of individual-level behavior equally likely to produce net volatility? Boyd (1985, p.521) argues that abstention has a very high potential effect on election outcomes, while Przeworski (1975) suggests that volatility may also be produced by the generational replacement of the electorate, an element that has been largely overlooked by other scholars. Others, on the other hand, refuse to make inferences from aggregate measures of volatility that concern the behavior of individual voters, claiming that the likely presence of canceling out makes the task unfeasible without relying on individual-level data (eg. Rose and Urwin, 1970; Drummond, 2006). But the truth is that the actual impact of these factors on net volatility has barely been investigated.

Using net volatility as an indicator of changes at the individual level can be problematic on several accounts. The existence of different components of volatility makes it necessary to empirically assess their relative strength before taking any further step. In principle, changes in election results may be caused by switching to the same extent that they may be attributed to differential turnout or generational replacement. Moreover, the assumption that net change is linked to vote instability is not self-evident. Scholars have pointed out that most voters develop rather stable preferences over their life course (Butler and Stokes, 1974; Campbell et al., 1964; Fiorina, 1981; Kroh et al., 2007; Miller and Shanks, 1996). So, even though preference stability does not preclude the possibility of aggregate change, it is far from evident that most net volatility should come from party switching. On the other hand, it must be taken into account that the translation of individual behavior into net change is far from perfect. Not only may changes at the individual level cancel

out each other but it is also possible for canceling out to occur between different components of volatility, as will be explained later.

Assessing the theoretical relevance of the three components

There are reasons why vote-switching should play the most important role in net volatility. These reasons are related to the process through which individual behavior affects election results, but they have never been spelled out in the literature. Given the distinct nature of vote-switching vis-à-vis the other two components, the net impact of one switched vote is not only expected to be stronger but also more difficult to be canceled out. This section explicates this in more detail.

Votes that change hands as a result of switching have a stronger impact on volatility than votes coming from any other source. This is so because, as Boyd (1985) points out, any individual vote captured from a switching voter is simultaneously one vote gained by a given party and one vote lost by another. In contrast, this rule does not hold true for differential turnout or generational replacement. As an example, let me focus on the effect of mobilization. When a non-voter decides to turn out at a given election, that involves one party getting an extra vote without any other party losing a single vote. Thus, the effect produced by one switching voter on volatility will always be much stronger than the effect of one mobilized voter. In order to illustrate this, Figure 2.1 shows different exemplary scenarios in a two-party system. In the first scenario, five voters switch from party B to A. This, as can be observed, produces in this example 5 points of net volatility. The second scenario also involves five votes, but this time they come from non-voters that decide to turn out and support party A. It is easy to note that the effect of the same number of voters is much smaller in the second case (it produces 2.9 points of volatility in this example). This is because the impact of mobilized (or demobilized) voters depends on two things. First, on the number of parties, as the effect of mobilizing voters would be even smaller if more parties were added. And second, on how much mobilized voters add to

changes in levels of turnout¹ as, by definition, the relative impact of one extra voter will be smaller when the number of voters is larger. And the same can be said about the effect of new and deceased voters in what I called generational replacement.

It must be taken into account that the net effect of differential turnout and generational replacement is distributional. In other words, their effect does not only depend on the number of voters that change (as is the case for vote-switching) but also on how these are distributed among the different parties. In the different scenarios presented earlier, only one of the parties received voters from mobilization (and, similarly, only one of them lost voters from demobilization). Now, imagine that both party A and party B received the same number of mobilized voters. In this case, the net effect of mobilization on net volatility would be zero. And the same also applies to demobilization and to the different elements of generational replacement. In addition to this, generational replacement is also limited by demographic dynamics. Variations in mortality and/or birth rates, as well as electoral rules that lower the voting age, may indeed have an important impact on election results by benefiting those parties with stronger attraction among the young at the expense of the rest. But, as the rate of replacement in the electorate in Western European countries tends to be rather low, the net effect of generational replacement is expected to be relatively small in the short term. Thus, we should expect *switching voters to have the strongest effect on volatility (H1a), while generational replacement should have the smallest effect (H1b)*.

An additional factor that limits the effect of individual behavior on net change is canceling-out. Mobilization may indeed cancel out the effect of demobilization and vice versa, as well as the effect of newly eligible supporters may be canceled out by the passing away of others. Similarly, there is also a certain degree of canceling out in vote-switching. In order for switchers to affect election results, it is necessary that voters do not shift parties at random. If the same number of voters that switch from party A to party B between two elections decided to switch from

¹Or by how much the level of turnout shrinks, in the case of demobilization.

Table 2.1: The effect of switching on net volatility vs. other types of behavior. Exemplary scenarios
 Hypothetical switching scenario: 5 voters switch parties.

	Number of voters		Percentage of votes		Difference
	Election t	Election t+1	Election t	Election t+1	
Party A	40	45	40.0%	45.0%	5.0%
Party B	60	55	60.0%	55.0%	-5.0%
Total voters	100	100	Volatility:		5

	Number of voters		Percentage of votes		Difference
	Election t	Election t+1	Election t	Election t+1	
Party A	40	45	40.0%	42.9%	2.9%
Party B	60	60	60.0%	57.1%	-2.9%
Total voters	100	105	Volatility:		2.9

Scenario 2 (mobilization): 5 formerly non-voters support A.

B to A, we would end up with the same election results no matter how much switching we found.

Apart from the canceling-out that takes place within the components of volatility, there is another source of canceling-out that should be looked into: the one that takes place between (and not within) components. This kind of canceling-out comes about when the net effects of different components present opposing signs. Thus, a party might, for example, obtain gains from switching voters but lose votes from differential turnout and generational replacement, getting as a result exactly the same vote percentage as in the previous election. However, as the effect of switching voters is expected to be stronger, it will also be much more difficult for it to be removed by the action of the other two components. *We should, thus, expect the effect of net switching to be canceled out to a lesser extent (H2)*, reinforcing the role of switching as the most important of the elements that produce net volatility.

Volatility and voter instability

So, vote-switching is expected to have the strongest impact of volatility. But does that mean that we can then employ net switching as an indicator of the proportion of switching voters at a given election? In the literature, positive correlations between net volatility and the proportion of switching voters (also referred to as gross volatility) has often been employed as an argument in favor of using net volatility as a surrogate of switching. Lane and Ersson (1997) identify four theoretical scenarios regarding the relationship between individual switching and aggregate electoral change (see Table 2.2), of which II and III, that is, both high and low levels of net and gross volatility, are the most probable. Even though many vote shifts will surely cancel out each other, the forces that explain electoral change are likely to push most voters in a similar fashion. Arguably, most voters do not change their vote at random but in response to common stimuli, and so when many of them switch parties, that will eventually translate into large changes in election results.

Table 2.2: Gross and net volatility according to Lane and Ersson (1997)

		Net volatility	
		LOW	HIGH
Gross volatility	HIGH	I	II
	LOW	III	IV

Obviously, the other two scenarios (I and IV) are theoretically possible as well. While combination ‘I’ would imply a lot of canceling out, combination ‘IV’ would be the result of a very low number of people changing their party choice but mostly in the same direction. These two combinations would have very different consequences. If all situations were to be placed in the first scenario, any partisan strategy attempting to attract new votes would provoke virtually the opposite reaction among their former voters, therefore having a minimal effect on electoral results - a situation only likely to be witnessed in particular realignment periods. In general terms, it seems intuitively difficult to find large numbers of voters constantly shifting parties without this generating different election results. Scenario ‘IV’, on the other hand, corresponds to a very different world: one of very strong linkages where parties played with only a very small group of unlocked voters whom they would attempt to attract in order to enhance their vote share. However, unless the distribution of loyalty was remarkably unbalanced among parties, all parties would have very loyal voters to rely on, which would set their hands free and allow them all to focus on attracting switchers from other parties, producing a lot of canceling-out and making extreme change rather infrequent.

Empirical research has provided support for this theoretical reasoning showing positive correlations between net volatility and the proportion of switching voters across countries. With a sample of eight Western European democracies between 1950 and 1994¹, Lane and Ersson

¹The countries were Austria, Denmark, Finland, Germany, Netherlands, Norway,

(1997) themselves show a correlation of .74 between both indicators, while Crewe and Denver (1985) find a correlation of .523 in a sample of 49 elections, which increases to .60 in those 34 cases for which data were more reliable. This fits with the results of Bartolini and Mair (1990), whose several simulations with up to 1,000 matrices and different restrictions also yielded positive correlations, the minimum being .519 in the most unfavorable scenario.

There is, however, a gap that has not been often overlooked in the aggregate-level literature. There are two main reasons why a positive correlation between net volatility and gross switching may not be enough to employ the former as a good instrument of the latter. First of all, it is usually assumed that if the correlation is not perfect that is just because there is canceling out among switching voters. However, the possibility that the different components of volatility cancel out each other's effect is usually ignored. Imagine, for example, that elections with a large proportion of switching voters implied more canceling out between them and also a higher mobilization of former non-voters toward particular parties. In this case, the correlation between gross switching and net volatility would wrongly lead us to think that election change has been brought about by a larger number of switchers when, in reality, the causes are to be found in differential turnout. Second, even if no canceling out took place between different components, the correlations found in the literature raise big concerns about any attempt to use net volatility as a surrogate for a measure of individual-level conversion. After all, we are dealing with correlations that explain between 27% of the variance in net volatility in Bartolini and Mair's (1990) worst case scenario and roughly 55% according Lane and Ersson's (1997) findings. If confirmed, this might be enough to discourage the use of net volatility to study changes that occur at the individual level.

Indeed, even if most changes in election results are likely provoked by switching voters, the aggregate nature of net volatility does not allow its use as an indicator in order to study the micro-mechanisms of vote-

Sweden and the United Kingdom.

switching. This would, in contrast, require survey data. However, focusing on vote-switching may be incredibly useful for increasing our knowledge of net volatility. If the translation of switching into net volatility is a matter of canceling-out, modeling some of the mechanisms through which 'switched' votes are converted into net change will provide us with better tools for understanding both phenomena. In order to do so, it is necessary to investigate not only the raw correlation between gross and net volatility, but also the process through which switching provokes changes in election results.

The degree of canceling out is a function of the direction taken by different switches. The effect of a switching voter on election results can only be fully removed by an additional voter changing in the exact opposite direction. Voters changing in any other direction will, however, only provoke partial canceling out. As an example, let us imagine another scenario, this time with three parties (see Figure 2.8 in the Appendix). One voter switches from party C to party A, generating a certain amount of volatility (step 1). Imagine now another voter switching from party A to party B (step 2).² Indeed, the fact that this second switching voter does not provoke a further increase in net volatility is a sign of partial canceling out. But this canceling out is not full, in the sense that it does not fully eliminate the amount of volatility caused by the first switching voter. It would be necessary an additional switching voter moving, for example, from Party B to C (step 3) in order to restore the equilibrium.

This process has important consequences for net volatility. In two-party systems, there are only two possible ways of switching parties: changing from A to B or from B to A. Thus, the effect of a voter switching from A to B on net volatility will be fully canceled out by any other voter switching to party A, as this can only take place if voters move away from party B. This is, however, not the case in multi-party systems because additional switches to party A coming from any party other than B will not be able to completely cancel out the effect of switches from A

²Of course, in the real world, this process takes place at the same time and not through different steps.

to B. Thus, the larger the number of alternatives, the higher is the probability that switches are not fully canceled out and end up impacting on net volatility. This implies that the extent to which switches translate into net volatility will depend on the fragmentation of the party system. We can, therefore, hypothesize (H3) that *when fragmentation is low, switching will produce less net volatility. When, in contrast, fragmentation is high, gross and net volatility will look much more alike.*

2.3. Disaggregating electoral volatility: data and technical issues

There are different possible strategies to approaching the relationship between volatility and the different individual-level changes leading to it. Given the aggregate nature of electoral volatility, one of those strategies may consist in the use of ecological inference (Brown and Payne, 1986; Mannheimer, 1993; King, 1997). This strategy has, however, important shortcomings that make it inconvenient for the purposes of this chapter. For one thing, in order for these models to work, data must be collected at the lowest possible level of aggregation, which entails problems of feasibility when it comes to studying several countries and elections. For another, and even more importantly, ecological models are, by their own nature, based on the assumption that the population between two consecutive elections does not change at all. This rules out the possibility of estimating the effect of generational replacement and, therefore, comparing its relative impact on volatility vis-à-vis the other two possible paths. An alternative and more feasible strategy consists in combining aggregate and individual data. Since election surveys including vote recall for at least two elections have been conducted in several countries for decades now, there is no reason not to make use of them in order to have an overall idea as to what the common trends might be. To be sure, such a strategy is also far from perfect, as surveys do always contain some amount of measurement error. But, due to the reasons mentioned earlier, it looks like the best of the possible strategies in our case.

In what follows, several sources of information will be employed to

test the arguments made in previous sections. On the individual side, I employed the pooled database mentioned in Chapter 1 (Table 1.3), which contains 71 national election surveys for 6 countries over a time span of 50 years. Although those surveys are not panel studies, which might perhaps give us more precise information, we may combine them with other sources to try to approach a general picture of what is going on. Together with the presence of misreports, the other source of error of survey data is associated with non-response – or even partial responses, since information on both past and current voting behavior is needed.³ In order to deal with these possible sources of error, I will follow the literature and apply a weighting procedure that combines actual results and survey responses (eg. Axelrod, 1972; Boyd, 1985; Butler and Stokes, 1974; Särilvik and Crewe, 1983).⁴ By doing so, it is possible to compensate for measurement error as long as this is random with respect to the joint distribution of vote for the two elections considered (Boyd, 1985, p.527). Thus, the advantage of this method is that it produces good estimates of vote transitions assuming that no or very little systematic bias is present that affects all parties.

An Iterative Proportional Procedure (IPF) will be employed to weight the data. IPF is a well-established technique that can be used to calibrate estimation by integrating disaggregated data from one source with aggregated data from others (Wong, 1992) and may also be useful for the reduction of bias associated with non-response, non-coverage and measurement error (Battaglia et al., 2009; Flores Cervantes and Brick, 2008). It basically consists in putting together actual information on the margins of a distribution with individual survey data. Hence, what the iteration procedure basically does is repeat calculations following a specified algorithm until they converge to adjust marginal information from different

³In the sample, though, there is a moderately low number of missing cases (6.7% of missing cases for vote in the current election and 8.8% for the previous election, with 4.4% of respondents giving no information on either variable).

⁴In this case, weighting seems more adequate than other methods that deal with missing data, particularly multiple imputation. Multiple imputation is used to calculate standard errors and what is required here are simply point estimates.

sources keeping the cross-product ratios constant so that all the interactions that exist in the data are maintained (Bishop et al., 1975; Norman, 1999). One particularity of this chapter is that it is also aimed at getting an estimate of generational replacement, which requires combining more than two data sources. Thus, besides national election surveys and official records of turnout and election results, demographic statistics will also be employed to account for the percentage of new and deceased voters at every single election.⁵

By combining all these data, we can get information on voters who changed their behavior as well as on those who entered the electorate for the first time. This enabled me to calculate the net effect of switching and differential turnout, but not of generational replacement, as information on the choices of voters who passed away is missing in the surveys. As it is not possible to know which of the voters died between two given elections, it was assumed that all of the deceased come from the pool of people that would have turned 70 or more in the most recent election year.⁶ Thus, this group of individuals was artificially reproduced keeping exactly the same vote distribution in both elections as the subsample of over-69 respondents. Following this, they were assumed to have only been part of the electorate in the previous election but not in the most recent one, and they were assigned a weight that corresponds to the actual percentage of individuals over 69 that passed away between the two elections. Despite not being a perfect measure, this strategy will produce approximate estimates of the effect of deceased voters. Of course, it does not account for the amount of younger people who died, nor does it take into consideration that the distribution of preferences of deceased

⁵Demographic statistics come from the following sources: Danmarks Statistikbank (Denmark), Statistisches Bundesamt (Germany), Centraal Bureau voor de Statistiek (Netherlands), Statistisk sentralbyrå (Norway), Statistiska centralbyrån (Sweden) and Office for National Statistics (Great Britain). Modifications of the voting age were taken into account to calculate the number of new voters.

⁶This, in the light of demographic statistics, seems like a reasonable assumption, as voters over 69 years old represent, on the average, 77% of the total number of deaths in the sample of elections (standard deviation = 0.08).

voters may be different from those who are still alive, even if they belong in the same age group. The latter is likely the case with manual workers, whose higher mortality rates will probably affect the vote of labor, socialist and communist parties somewhat more than is predicted by this method. However, with regard to deaths of younger individuals, it must be borne in mind that these are, by definition, much less likely to be related to the aging process and, as a consequence, cannot be directly linked to generational replacement. Moreover, since the passing away of younger voters is likely to have a larger stochastic component, its impact on election results, if any, is bound to be very marginal. So, aside from a small amount of measurement error, this approximation method is far from problematic given our complete lack of information and the fact that the overall proportion of deceased voters is already rather small.

In order to calculate the impact of each component of volatility on election results, different groups were added or taken out to simulate the process that took place between elections. If switchers were set not to have switched, demobilized voters were set to have voted for the party that they did in the previous election, mobilized voters were set not to vote, young voters were set as missing and diseased voters were set to have voted in the way they presumably did, we could perfectly wind back from the most recent actual results to the results of the previous election. From this point, it was perfectly possible to simulate how much was added when different groups of voters came into play and how that affected the different results of every single party in all of the 71 elections. Thus, cross-tabulations were run for each of the elections in order to produce an estimate of how the different parties were affected by each of the three components of volatility. Results were then stored and put together in a pooled dataset.

2.4. What lies behind: analyses of electoral volatility in six countries

2.4.1. Analysis at the party level

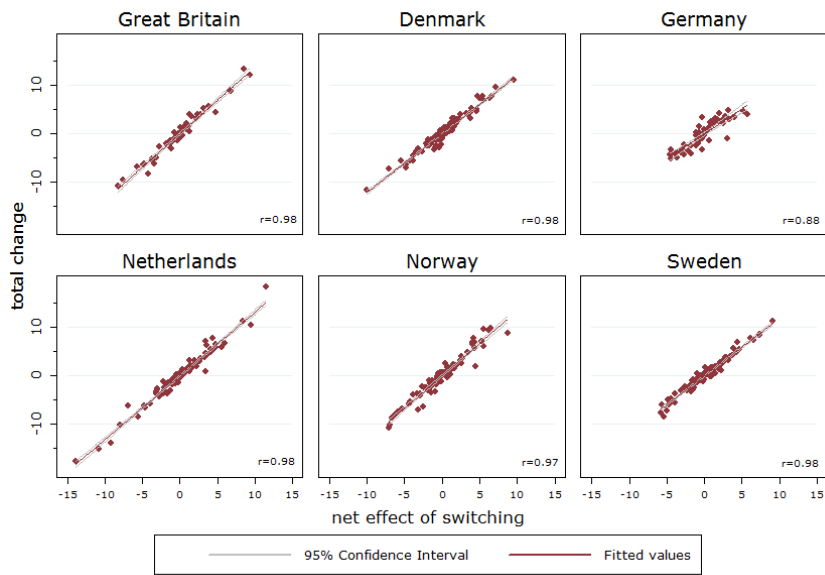
Even though electoral volatility tends to be measured at the election level, it is at the party level that net election change really takes place. Different parties lose and gain electoral support between consecutive elections, and volatility is only a measure of how much of the percentage (not of the voters) changed hands. Here, as explained, individual-level data were aggregated at the party level in order to simulate the process that takes place between elections and that results in actual change. Actual changes in electoral results are the consequence of a further aggregation which occurs when the effects of the three components of volatility are summed up. In other terms, the total percentage of votes that is lost or gained by each of the parties at one election equals the following equation:

$$\text{Total change } i = s_i + t_i + g_i,$$

where s is the net effect of vote-switching for each party (i), t is the net effect of differential turnout, and g is the net effect of generational replacement.

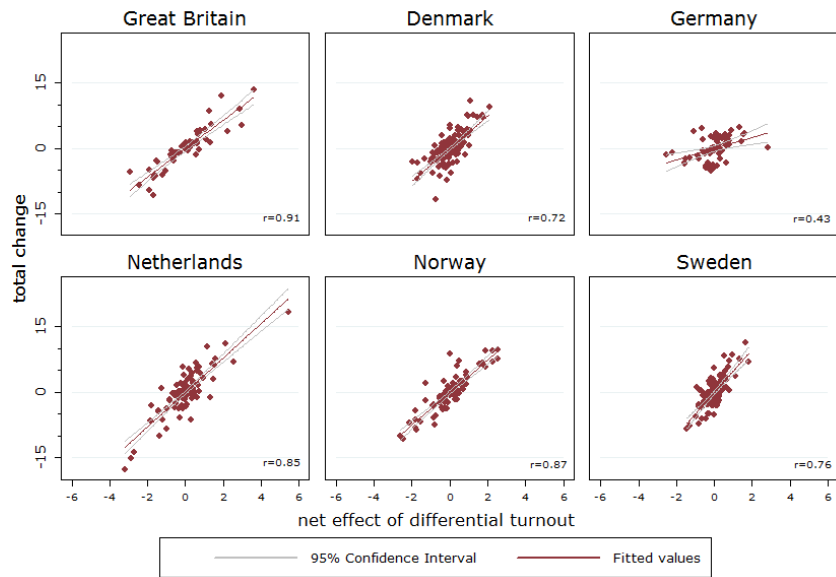
What this means is that, in order to study how each of these three elements impacts on net volatility as such, we have to analyze the relationship between them at the party level. The first thing that we need to assess is the relationship between the gains or losses in every party's support that is produced by each of the components and the total amount of change (that is, the actual percentage of votes that the party lost or gained in the most recent election). The purpose of this is to see which of the three components, if any, presents the strongest relationship with actual results, the expectation being that the effect of switching will be the one that resembles them the most.

Figure 2.1: Vote switching vs. vote share change by party



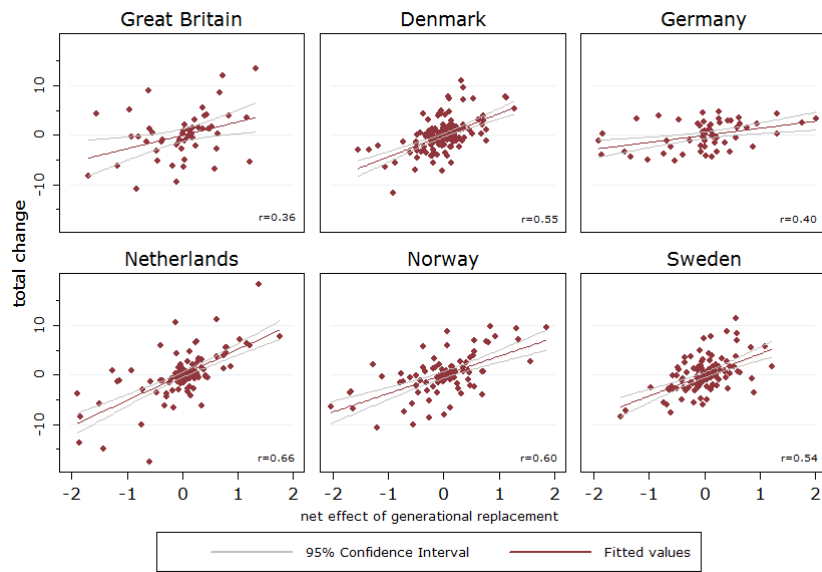
Correlations between each of the components and actual change at the party level are shown in figures 2.3 to 2.5. The correlation between the net effect of switching and actual change (shown in Figure 2.1) shows that this relationship is very strong indeed. The total correlation is .97 and, when split by country, it is actually higher than that in five of them. Only in Germany switching explains a little less of the variance of actual results (.88), although the range of variation is also much smaller than in any other country. All this suggests that, in general, we may have a pretty accurate idea of the actual amount of volatility by looking only at the net effect of switching on each party's results.

Figure 2.2: *Differential turnout vs. vote share change by party*



As expected, the picture is somewhat different with regard to the other two components. The correlation between the net effect of differential turnout and actual change at the party level (in Figure 2.2) shows a more erratic pattern. The relationship is strong in most countries, but in no case does it reach the levels found with switching. This is especially true in the German case, where the net effect of turnout only explains 19% of the variance of actual change and, thus, it can hardly be used as an accurate indicator of the latter. The net effect of generational replacement, on the other hand, shows an even weaker correlation with actual change in every one of the six countries (Figure 2.3). Actually, in both Great Britain and Germany the correlation is particularly low (and it is not significant at $p < .10$).

Figure 2.3: Generational replacement vs. vote share change by party



Thus, bivariate correlations support the claim that switching is, by and large, the most prominent of the components of volatility. But they are not enough to test this hypothesis. In order to evaluate how much of net volatility is generated by each of the three components, it is necessary to resort to an analysis such as the one in Table 2.3, where each of the components is regressed on the actual levels of net change. Since volatility is the total sum of the three components, the sum of the coefficients of the three models adds up to one.³ As per H1a, switching voters are expected to have the largest effect on net volatility, while generational replacement should have (according to H1b) the smallest effect.

³Coefficients in Table 2.3 do not exactly add up to 1 due to rounding

Results support both expectations. Clearly, net volatility is a much better indicator of net switching than of any of the other three components. On the average, one point of net volatility is composed of .75 points of net switching, .18 points of differential turnout and .07 points of generational replacement. In other words, 75% of the net volatility that is observed after all the canceling out has taken place is produced by the net effect of switching. This is a huge effect that clearly demonstrates the relative importance of this component in the short term.

As argued in previous sections, net volatility is the result of several kinds of canceling-out. In order to investigate the presence of canceling out between components, it is worth looking at the correlation between the net effect of the three of them at the party level, which, as can be observed in Table 2.9 (in the Appendix), is moderate in the six countries. Indeed, the positive correlations show that gains and losses of support at the party level take place in a rather coordinated fashion. Parties that are switched from and lose support as a consequence of this are also parties that, in general, tend to lose support from turnout and generational replacement. And the same should also be the case for parties that gain support. Thus, the same forces that lead individuals to help or damage the electoral prospects of particular parties seem to act in a similar direction regardless of the path we look at. However, the fact that the relationships are not very strong shows that there is indeed canceling-out between components. In fact, the evidence is pretty clear in this regard in the cases of Germany and Great Britain. In these two cases, the correlation is very weak and does not even reach statistical significance at $p < .05$, indicating that losses from one component are often compensated with gains from another and result in canceling out. It is, therefore, necessary to investigate whether the importance of the effect of switching that was pointed out before is a mere effect of this canceling out or whether it is also present before the latter takes place. This is what the next section deals with.

Table 2.3: Analysis of the relationship between net change in election results and the net effect of each component at the party level. Linear regressions with fixed effects by party

VARIABLES	(1) Net switching (party level)	(2) Net differential turnout (party level)	(3) Net generat. replacement (party level)
Total net change	0.748*** (0.00672)	0.177*** (0.00581)	0.0744*** (0.00387)
Constant	-0.0000 (0.0238)	-0.0000 (0.0206)	-0.0000 (0.0137)
Observations	626	626	626
N of parties	83	83	83
R-squared	0.958	0.632	0.406

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

2.4.2. Analysis at the election level: taking account of canceling out between components

As Table 2.4 illustrates, net volatility does not tell us anything about the real contribution of each of the components. As a result of canceling out between them, different combinations of the three can produce exactly the same levels of volatility. The net effect of the three components of volatility, free from the canceling out that takes place between them, can only be estimated at the election level. The way to compute this kind of ‘intra-component volatility’ is to apply Pedersen’s (1979) formula⁴ to each of the components as shown in Table 2.4. The result of the sum of the three effects computed this way is the total level of net volatility that would be found if no canceling out took place between components. As can be appreciated in the table, as well as in most real-world cases, the total does not equal actual net volatility. It is also possible to calculate the percent contribution of each of the effects. Thus, in the example, generational replacement represents a 21% of the total flux of vote share caused by the three components.

Following this, I calculated the net effect of each of the components for all the elections in the sample. Results (in Figure 2.4) show that, in terms of contribution, switching is the component that generates most of the net flux of votes between elections. To be sure, there is variation in this pattern. However, there are only two cases where the effect of switching was outrivalled by another component. One is the exceptional election of 1990 in Germany, the first after reunification, where differential turnout clearly had a bigger effect (45% compared to 35% of switching).⁷ The second exception is Great Britain in 1966, when the

⁴Volatility (V_i) = $\frac{(\sum_{i=1}^n |\Delta p_{i,t}|)}{2}$, where volatility (V_i) may be interpreted as the cumulated gains for all winning parties in the party system or, symmetrically, the cumulated losses for all losing parties. The subscript i stands for every party, t for the time point -here, election years-, and, therefore, $p_{i,t}$ corresponds to the vote share gained by party i in election t .

⁷Note that Eastern German voters were excluded from the sample, as their effect

Table 2.4: Net switching, differential turnout and generational replacement and their corresponding contribution to volatility

	vote switching	differential turnout	generational replacement	
Party A	6	0	-3	3
Party B	-2	5	0	3
Party C	-4	-5	3	-6
Total volatility:				6
	<i>a</i>	<i>b</i>	<i>c</i>	<i>Total (a+b+c)</i>
Net effect	6	5	3	14
Contribution	43%	36%	21%	

Note: Figures in the upper table symbolize losses or gains of vote share.

extraordinary low effect of switching (only 1.5% of the votes changed hands due to voters who shifted parties, the smallest amount in the sample) resulted in a higher contribution of turnout (54% vs. 36% of switching). When the contribution of the three components is looked at in relation to the actual levels of volatility (Figure 2.5) it looks like switching can be clearly qualified as the engine of change in most elections, its relative contribution growing hand in hand with electoral volatility. This may indicate that when volatility increases, it is mostly due to a parallel increase in the fluctuation of votes between parties, which provides support for the hypothesis that net volatility is, to a large extent, reflecting changes produced by switching.

All in all, the figures show that switching emerges as the main element of net volatility also before any canceling out occurs between components. It is, however, important to investigate to which extent the different components cancel out each other and which of them tend to gain strength after canceling out has taken place.

According to the arguments developed in earlier sections, switching is expected to be the component whose effect is counteracted by the other two to a lesser extent (H2). In order to assess this, I regressed actual levels of volatility (that is the Pedersen index) on the net effect of the three components. Remember that if there was no canceling out between components then net volatility would equal the sum of their net effects (see Figure 2.4). This implies that, in the regression, coefficients would all be equal to 1 and volatility would be perfectly predicted. Results show, however, that there is indeed some canceling out between components (see Table 2.5). On the average, vote-switching does not seem to be greatly affected by this kind of canceling out, one percent change in switching leading to 1.07 extra points of volatility. The coefficient of generational replacement, although somewhat smaller, is not statistically different from that of switching. This indicates that both components

cannot be attributed to any of the three components but to extraordinary reasons associated to that election. Note, too, that election results and volatility in 1990 correspond to Western Germany only.

Figure 2.4: Relative contribution of each component to total volatility (stacked areas)

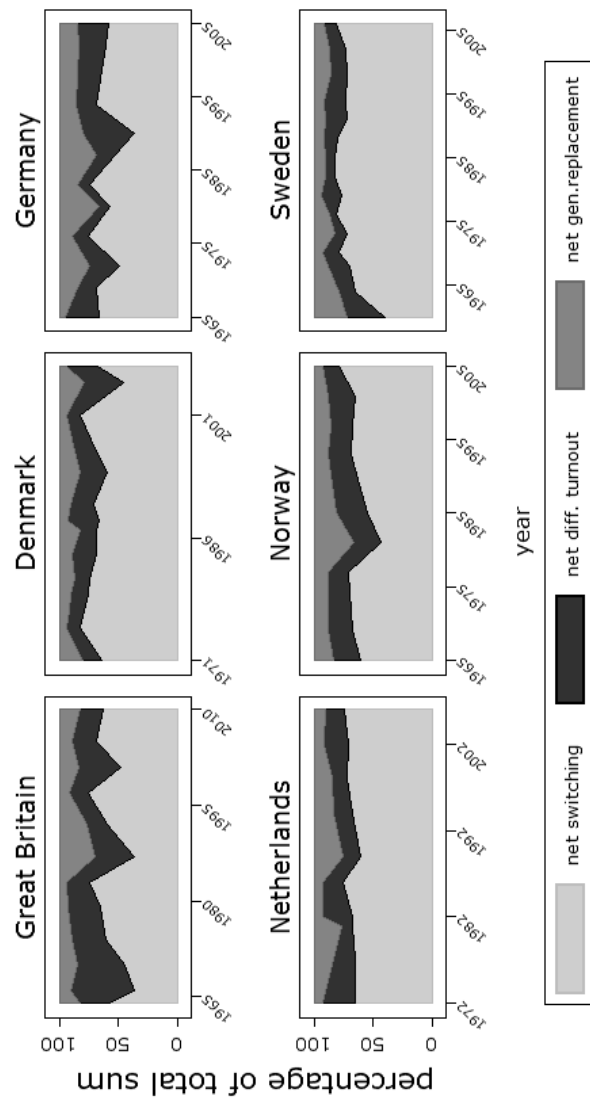
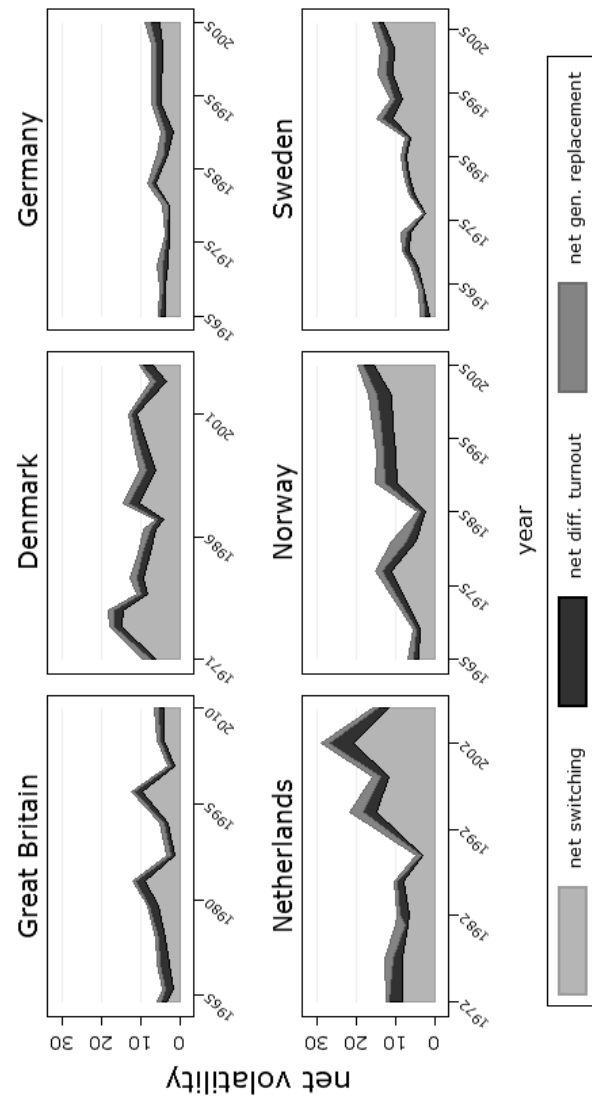


Figure 2.5: Volatility level and relative contribution of each component (stacked areas)



translate almost completely into net volatility. But this is, however, not the case with differential turnout. One percent change produced by differential turnout produces only .75 points of volatility, the coefficient being significantly different from the one of switching at $p < 0.05$.⁸ The three coefficients sum up to 2.8, whereas if no canceling out took place the three of them should add up to 3. Therefore, .20 points of volatility (ie. 6%) are lost, on the average, due to canceling out between components, usually at the expense of differential turnout.

Thus, the finding in the previous section that most volatility is produced by switching voters is not only an effect of the canceling-out between vote-switching and the other two components. This kind of canceling-out has a relatively small effect even if, as shown, it seems to increase somewhat the weight of both switching and generational replacement at the expense of differential turnout (which provides partial support for H2). The net effect of switching at the election level is definitely larger than the effect of the other components even before canceling out between them takes place. We may, therefore, be confident that net volatility is a good indicator of net switching. But this clearly tells us very little about the extent to which voter instability can be approximated by measures of net change. For this, it is necessary to look further into the relationship between the proportion of switchers and the level of change in election results.

2.4.3. Gross switching, net switching and net volatility

The fact that net volatility can be used as a good indicator of net switching does not necessarily imply that the former is also a good in-

⁸Coefficients refer to the extent to which net volatility increases with every point of volatility produced by its different components. It is important to bear in mind, though, that these are not standardized coefficients. Even if generational replacement and switching seem to have a similar effect, the total amount of change caused by generational replacement is, in practice, relatively small (it varies between .25 and 4.23, while the effect of switching in the sample varies between 1.5 and 23.4). This is why its actual effect on volatility, as shown in the previous section, is also very small.

Table 2.5: Cross-Sectional Time-Series regression with fixed effects by country. Dependent variable: volatility. Independent variables: net effect of each component before canceling out between components

	(4) Net volatility (Pedersen index)
Diff. turnout	0.747*** (0.132)
Generational replacement	0.982*** (0.175)
Switching	1.074*** (0.0366)
Constant	-1.327*** (0.341)
Observations	72
Number of countries	6
R-squared	0.966

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

indicator of gross switching and, therefore, of voter instability. This confusion is present in most of the literature at the aggregate level, where moderately strong correlations between gross switching and net volatility are usually taken as a proof that this is the case.

As previously mentioned, understanding the relationship between gross switching and volatility implies answering two different questions. The first one is the extent to which the empirical relationship between gross and net switching is similar to the relationship between gross and net volatility. Correlations between gross and net volatility might be spurious if we do not consider the effect of canceling out between com-

ponents. Judging from the findings of this chapter, this is probably not the case because the average amount of canceling out of this sort is not large enough, but this is something that should, in any case, be subject to investigation. The second essential question that must then be solved concerns the way in which switching turns into net volatility.

The correlation between net volatility and gross switching in the sample of elections used in this chapter is .72, which is on the high side compared to the findings of other authors that were mentioned earlier. As can be seen in Table 2.6, when one percent of the voters change their vote, this translates into .45 points of net volatility (Model 5) and .38 per cent of net switching (Model 6). As indicated by the positive sign of both coefficients, we can be confident that a higher proportion of switchers is associated with larger changes in electoral results as well. Even if the second coefficient is somewhat smaller, the difference is not large enough to reach statistical significance at $p < 0.01$, suggesting that the effect of gross switching on both net switching and net volatility is extremely similar. Thus, the literature does not seem to be totally misled when the latter are used as equivalent concepts.

Even if there is a strong positive relationship between gross and net switching, coefficients are far from 1, which indicates a high average rate of canceling out between different switching voters. This would perhaps not be problematic if the variance explained was very high. However, gross switching does not account for more than 50% of the variance of net switching (and it accounts for hardly 50% of the variance of net volatility), and this complicates the use of net volatility as an indicator of vote-switching, as there are obviously other factors that mediate in this relationship. Net volatility may be the best instrument that we have at hand without having to resort to survey data, but its real utility should be put into question when the purpose is to investigate variations in vote instability rather than the effect of the former on election results.

As argued, the best strategy to explain gross and net volatility might just be the opposite than what aggregate-level research usually does. In other words, it might be better to try and understand net volatility from

Table 2.6: *Cross-Sectional Time-Series regression with fixed effects by country. Dependent variables: net volatility (model 5) and net switching (model 6). Independent variable: gross switching (percentage of voters of both elections that switched)*

	(5) Net volatility	(6) Net switching
Gross switching	0.455*** (0.0558)	0.382*** (0.0508)
Constant	-0.172 (1.281)	-0.319 (1.166)
Observations	72	72
Number of countries	6	6
R-squared	0.506	0.465

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

individual switches rather than the other way around. For this, it would be necessary to model some of the mechanisms through which switching translates into net volatility. It was suggested before that a key mediating factor in this process is party system fragmentation. Canceling out between switchers should be much more likely when fragmentation is particularly low, whereas a bigger number of important parties should make it more unlikely (H3). In order to test this, an interaction between gross switching and party system fragmentation⁹ was introduced. Results are shown in Table 2.7.¹⁰ As can be seen, the interaction effect is positive,

⁹Source: Armingeon et al. (2010). Fragmentation is calculated according to Laakso and Taagepera (1979).

¹⁰Dickey-Fuller tests did not reveal the presence of a unit root. Modified Wald tests, however, revealed a significant level of panel heteroskedasticity at $p < .05$. One of the

suggesting that, as expected, the effect of one unit increase in switching is much bigger under scenarios of more fragmentation. While 1% percent of vote-switching produces .10 points in net volatility when fragmentation is 2.01 (the minimum level in the sample), this effect raises to .79 when the effective number of parties is 6.44 (the maximum in the sample). Moreover, introducing fragmentation as a moderator of gross switching raises the percentage of variance explained by almost 20 points until 70%, yielding much better predictions than using the proportion of vote-switching as the only independent variable.

2.5. Conclusion

Electoral volatility is perhaps the best indicator at hand to compare party system stability across countries and over time. However, its aggregate nature makes it difficult to clarify the mechanisms leading to changes in election results. This chapter has attempted to provide some answers in this regard by disentangling the way in which different of individual-level changes translate into net change.

In the short term, electoral change might, in principle, be produced by three different elements: 1) voters that shift parties, 2) voters that fluctuate between vote and abstention, and 3) the generational replacement of the electorate. Here, it has been argued that vote-switching should be the most prominent of the three components, and findings indicate that that is the case. The estimated aggregate effect of the three components clearly shows that switching produces, on the average, 75% of net volatility, while differential turnout produces 18% and generational replacement only 7%.

The very strong relationship between net switching and volatility indicates that the latter may indeed be considered to be an indicator of the

panels (Germany) also showed significant levels of first order autocorrelation. Panel-corrected standard errors (Beck and Katz., 1996) were introduced to correct for panel heteroskedasticity (and for both panel heteroskedasticity and first order autocorrelation), but results were almost identical and did not affect substantial findings.

Table 2.7: Cross-Sectional Time-Series regression with fixed effects by country. Interaction model. Dependent variables: net volatility. Independent variables: gross switching (percentage of voters of both elections that switched) and party-system fragmentation

	(7) Net volatility (Pedersen index)
Gross switching	-0.197 (0.204)
Fragmentation	-2.247 (1.441)
Gross switching * Fragmentation	0.152*** (0.049)
Constant	9.517* (5.132)
Observations	72
Number of countries	6
R-squared	0.692
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

former to a large extent. Not only does switching produce the strongest average impact on the results of parties, but also its impact tends not to be counteracted by the net effect of the other two components. The small percentage of volatility that is absorbed by canceling out between the components of volatility (6% in the sample of elections used in this chapter) tends to affect differential turnout much more than it affects switching.

Indeed, these findings do not imply that differential turnout and generational replacement are not important. The effect of generational replacement, for example, should not be overlooked in the long run, especially in cases of particular parties who have seen a steady decline in support due to the natural replacement of the electorate. But here, the focus is mainly on electoral volatility, which is, by definition, and indicator of changes that occur in the short term. And the predominance of switching as the main engine of change is clear in this regard.

This chapter comes to fill an important gap in the literature and justifies a deeper look into the mechanisms of vote-switching as an essential step in order to explain electoral change. Now, the fact that net switching and volatility are so strongly connected should not lead us to think that net volatility is a good surrogate for a measure of voter instability. In spite of the positive and significant relationship between gross and net switching, the amount of variance of the latter that is explained by the proportion of switching voters in a given election is certainly not enough to take this step. However, the chapter has shown evidence that it is possible to get much more accurate predictions by modeling the mechanisms that mediate in the translation process of vote switching into net electoral change. This is very important indeed, as knowing the way in which gross switching turns itself into net volatility will allow us to better understand both phenomena and makes it possible to build up from the individual level using survey data in order to explain gross switching. This is precisely the way in which the next chapters proceed. Chapter 3 will first focus on the process that explains how and why proneness to change varies over an individual's life course. Then, chapter 4 will use

this information together with other variables at both the individual, the election and the party level, in order to provide a model of vote-switching that helps us explain variations in the number of switchers across elections.

2.6. Appendix

Table 2.8: Example of canceling out in switching

PREVIOUS ELECTION (T-1)			
	votes	percentage	
Party A	10	40%	
Party B	5	20%	
Party C	10	40%	
Total	25		
PRESENT ELECTION (T)			
Step 1: one voter switches from party C to party A			
	votes	percentage	change
Party A	11	44%	0.04
Party B	5	20%	0.00
Party C	9	36%	-0.04
Total	25		
Volatility:		4%	
Step 2: an additional voter switches from party A to party B			
	votes	percentage	change
Party A	10	40%	0.00
Party B	6	24%	0.04
Party C	9	36%	-0.04
Total	25		
Volatility:		4%	
Step 3: an additional voter switches from party B to party C			
	votes	percentage	change
Party A	10	40%	0.00
Party B	5	20%	0.00
Party C	10	40%	0.00
Total	25		
Volatility:		0%	

Table 2.9: Zero-order correlations between the net effect of the components of volatility at the party level

Great Britain			Denmark		
n=52	Switching	Diff. Turnout	n=175	Switching	Diff. Turnout
Diff. Turnout	0.85***	1	Diff. Turnout	0.59***	1
Gen. Rplmt	0.25*	0.17	Gen. Rplmt	0.43***	0.39***
Germany			Netherlands		
n=60	Switching	Diff. Turnout	n=130	Switching	Diff. Turnout
Diff. Turnout	0.04	1	Diff. Turnout	0.76***	1
Gen. Rplmt	0.06	0.21	Gen. Rplmt	0.56***	0.53***
Norway			Sweden		
n=95	Switching	Diff. Turnout	n=114	Switching	Diff. Turnout
Diff. Turnout	0.76***	1	Diff. Turnout	0.66***	1
Gen. Rplmt	0.42***	0.57***	Gen. Rplmt	0.41***	0.49***

*** p<0.01, ** p<0.05, * p<0.1

CHAPTER 3. ALL THAT YOU CAN(NOT) LEAVE BEHIND. INERTIA, POLITICAL EXPERIENCE AND VOTE INSTABILITY

3.1. Introduction

The relevance of vote-switching in bringing about political change makes it essential to study the mechanisms underlying the development of vote stability and the lack thereof. Much theorizing in political science implicitly expects choices to be made afresh at each election (eg. Fiorina, 1981; Riker, 1986; Fearon, 1999; Manin et al., 1999). Yet the first thing that one notices is that the number of loyal voters tends to always outweigh the number of switchers at any particular election. But why is it so? Are some individuals less prone than others to change their vote? This chapter sheds more light on this by focusing on the role of inertia on electoral behavior. I argue that voting is a learning process in which voters acquire political experience as they make decisions. This process molds voters' preferences and informs their future choices, generating an increasing tendency to stick with a particular party as they age.

Differences between more and less experienced individuals have indeed been reported in many respects. In political science, young adults have been claimed to be less politically engaged, less civic-minded and less interested in politics (Verba et al., 1995; Dalton, 1999; Norris, 1999; Wattenberg, 2000). Similarly, they have been shown to turn out at elections at a lower rate than their older counterparts (Franklin, 2004). In contrast, when it comes to electoral change both media reports and aca-

democratic work alike tend to overlook the role of experience. Much of the volatility that we see in elections might be provoked by the particular tendency of less experienced voters to switch. About 40 years ago, Butler and Stokes (1974) reported that British voters who had chosen the same party on several occasions were extremely unlikely to defect. Following McPhee and Ferguson (1962), they called this phenomenon ‘immunization’, suggesting that the repeated experience of older voters with party politics made them less susceptible to the contagion of political change. But how does this process take place? In other words, in which way does inertia affect vote stability? And to what extent does this concept help us to understand the reason why vote-switching tends to decrease with age?

This chapter employs Dutch panel data to answer these questions and contributes to the literature on vote stability in several ways. First, the impact of inertia on voters’ preferences and subsequent choices is investigated here in a multi-party system (the Netherlands), whereas much research on the topic has provided evidence from two-party systems. In addition, I employ a measure of party utility that is available for each of the parties, and not only for the one that voters feel attached to. Findings provide support for the hypothesis that inertia has a double impact on electoral behavior. On the one hand, the gap between the utility yielded by the chosen party vis-à-vis the other alternatives is larger for voters that have repeated the same choice. This is so because the utility of parties that have been repeatedly supported tends to increase by the following election, whereas the possibility to ever support any other alternative is increasingly discarded. On the other hand, inertia seems to impose further constraints on vote choice. When voters with similar preferences are compared with one another, those who have repeatedly voted for the same party in the past have a stronger tendency to make that choice again. Lastly, the chapter further contributes to the literature by showing that repeatedly voting for a party is an essential factor in order to understand the impact of chronological age on vote stability.

In what follows, I first introduce different approaches to the concept of inertia and the way in which this has been treated in the political sci-

ence literature (Section 3.2). Theoretical expectations and hypotheses are then introduced in Section 3.3, while Section 3.4 deals with case selection and explains the methods that will be employed in the analyses. Findings are shown and commented on in Section 3.5. Finally, Section 3.6 concludes with a brief discussion and a summary of findings.

3.2. Dealing with (in)stability: the political science literature

At first sight, it may not seem striking that voters tend to repeat their party choice. Parties that match up to voters' preferences most of the time should, after all, get their regular support (Adams, 2001). Yet, the fact that older adults are more likely to repeat their vote (cf. McPhee and Ferguson, 1962; Butler and Stokes, 1974) suggests that there is something more to be explained. As mentioned, party choice is not made anew at each election. In turn, citizens carry memories of their past choices into the voting booth and use prior behavior as a standard against which to evaluate current choices (Alwin and Krosnick, 1991; Nadeau and Mendelsohn, 1994; Zuckerman, 1989). Thus, with the passage of time, voting behavior tends to be impacted by some kind of inertia that leads voters to stick with the same party at most elections.

The presence of inertia in human behavior has been theoretically developed from very different approaches inside and outside political science. In general, it is common to frame inertia in the context of bounded rationality, by which under conditions of limited time and information it is a cost-efficient strategy to stick with an alternative that one knows works reasonably well instead of finding the best performing option in each case (Simon, 1978; Shugan, 1980; Payne et al., 1993). According to this view, individuals try to maximize the accuracy of their choices and minimize the effort put into the decision-making process. Prior knowledge obtained by experience determines which strategies are available to a decision maker in her memory, and so, when making new choices, individuals are likely to repeat the same strategy that they used in the past unless new information is received that discourages its use (Payne

et al., 1993). Similar arguments have been used to explain the presence of habituation in voting behavior, which is often claimed to be a mechanism that makes the decision-making process of voting less demanding (Aldrich et al., 2011).

For some scholars, however, inertia need not be at odds with full rationality. Individuals will tend to stick with the choice that they know more about rather than try and switch to another one whose performance is uncertain (Chorus and Dellaert, 2011). The mechanisms may not be very different when it comes to choosing a party. Individuals choose alternatives based on positive expectations about them, but they are uncertain as to how satisfied they would be with their choice had they chosen any other alternative. Alternatives that are chosen more than once in a row are precisely those that individuals have had a good experience with. Thus, voters will develop stronger preferences for the party that they have had more positive contact with whereas other alternatives will be increasingly discarded.

Many political scientists have focused on turnout as a dependent variable in order to study the effects of inertia – or ‘habituation’ – on voting behavior (eg. Campbell et al., 1960; Green and Shachar, 2000; Plutzer, 2002; Gerber et al., 2003; Franklin et al., 2004; Denny and Doyle, 2009; Aldrich et al., 2011). But inertia, as Campbell (1960) himself pointed out, may not only impact on the probability to turn out as such, but also on party choice. In this regard, much scholarly work has paid attention to the development of party attachments and their reinforcement over time. Drawing on Converse’s (1964; 1969) robust findings that relate age to the stability of party identification, scholars have provided explanations of this phenomenon from very different perspectives. Thus, some claim vote stability to be the byproduct of a psychological process by which people generate attachments to parties which are then reinforced over the life course (Campbell et al., 1960; Miller and Shanks, 1996). Others, though, consider party identification to be a ‘running tally’ of voters’ assessments of the performance of parties (Key Jr., 1952, 1966; Achen, 2002). According to this latter perspective, party identification is simply

an indicator of a voter's expectation to choose a party in a majority of elections.

From a purely rational point of view, inertia has often been disregarded because party attachments are expected to change as a consequence of political events and other short-time factors (Grynaviski, 2006). Achen (1992, 2002), however, justifies the presence of inertia in that the marginal effect of new information decreases with age, which would explain why older individuals do not change their partisanship so often and are, therefore, expected to keep stable preferences. Green et al. (2002), on the other hand, put this rational-revisionist explanation into question. In their opinion, identification concerns the way in which people *think of themselves* rather than just their evaluations about parties. They show that the way in which people assess parties is more likely to change over time than does their identification, and argue that the assertion that older people learn less from new events than younger adults could only hold in the unlikely case that political events did not change over time. As soon as there is some degree of political change, such an assumption would imply older voters giving more weight to obsolete information. And that, they argue, would not be rational.

More recently, other scholars have argued that the reason why preferences become stable over time may also be related to some sort of strengthening effect of voting behavior. In their opinion, the very act of voting impacts on preferences by strengthening voters' beliefs about the parties and leaders that they have voted for (Meredith, 2009; Mullanathan and Washington, 2009; Dinas, 2010, but see contradicting findings in Elinder 2011). Their argument is that voters adapt their preferences to their own behavior and end up developing stronger attachments to the chosen party. Several alternative mechanisms may, in principle, cause this phenomenon (for a more detailed explanation, see Dinas, 2010). For one thing, elections may operate by increasing the information of voters about political parties, reinforcing the strength of their preferences toward the chosen alternative. For another, based on Festinger's (1957) theory of cognitive dissonation, elections might trigger

a psychological mechanism that makes young voters adapt their preferences to their final choice. An alternative explanation, though, is that voters simply infer their attitudes from their behavior (Bem, 1972).

So far, the treatment given to inertia in the literature has been very limited indeed. As mentioned, most research has focused on the development of attachments to parties, failing to show how repeatedly voting for a party may not only impact on voters' declared preferences but also impose further constraints on their vote. And there is also very little evidence on the extent to which inertia is a useful concept in order to understand the effect of age on party loyalty. Moreover, most published work on the topic takes party identification as a proxy for a person's preferences. This is, however, problematic, as it does not allow documenting how preferences for all parties evolve with the repetition of choices. By definition, party identification is an ipsative concept (Converse, 1964, 1969). This means that identification with one party excludes identification with another, and so one unit change in voters' preferences for one of the two parties is expected to produce a change by the same amount against its competitors. Downs (1957), however, argued that voters get different utilities from each of the parties and decide to vote for the one that they prefer the most. As utilities are not exclusive, voters may show particularly high or low preferences for more than one party, as well as they may even have more than one first preference. As useful as the concept of party identification may be in order to study vote choice, it provides very little information about preferences for other parties, which is of especial concern in multi-party systems. Here, I intend to overcome this limitation with a measure of party preference that covers all the alternatives in the party system. But before elaborating on this, let us turn to setting out the theoretical expectations.

3.3. Theoretical expectations

Inertia is a mechanism by which individuals increasingly favor the party that they have repeatedly chosen over any other alternative. I ar-

gue that there are two complementary ways in which this process takes place. On the one hand, repeatedly voting for a party should increase the average gap between preferences for the chosen party and the other alternatives. From the moment that a person casts a vote, a cycle of inertia is generated. As voters choose parties that they have strong preferences for, the probability of repeating the same choice tends to be high. And, as choices are repeated, the difference between the chosen party and the rest in terms of preferences becomes larger, which decreases the probability of choosing any other alternative. Preferences for the chosen party should increase as the same party is repeatedly supported, whereas preferences for other alternatives should, by contrast, tend to decrease, as they should be increasingly discarded as future choices. In other words:

H₁ : The gap between preferences for the chosen party and preferences for other alternatives will be larger for voters that have repeatedly chosen the same party.

H_{2a} : Preferences will increase for parties that have been repeatedly chosen.

H_{2b} : Preferences will decrease for parties other than the one that has been repeatedly chosen.

On the other hand, inertia might still have an impact on people's choices beyond their declared preferences. Virtually all theories of inertia claim that, in a way or another, the latter generates constraints that lead voters to prefer the chosen party rather than any other similarly attractive alternative. The reasons why these constraints are generated are manifold and depend on the approach that we look at. As mentioned, some would claim that resorting to past choices simplifies the decision-making process of voting (eg Payne et al., 1993; Aldrich et al., 2011), whereas others would state that inertia derives from a psychological process of habituation that increases the likelihood to stick with a given party (Dinas, 2010). From a rational perspective, beliefs about previous choices are considered to be more robust, as they are based on the indi-

vidual's own assessment and experience (eg. Chorus and Dellaert, 2011). So, experience should, also from this approach, generate a tendency to stick with the chosen party unless exceptional circumstances damage its support. Be that as it may, the effect of inertia as a constraining factor should lead us to find that, when voters with a similar declared attraction toward the different parties are compared to one another, those who had already voted for the same party at previous elections will more likely to repeat the same choice again. Thus:

H3: Voters who have chosen the same party on several occasions will be more loyal than the rest, even when their preferences are controlled for.

Now, in order to fully assess the relevance of inertia, it is important to investigate to what extent it helps us to understand why loyalty is higher among older voters. In principle, the effect of chronological age on the likelihood to switch might be due to other processes different from inertia that are also associated with the passage of time. Scholarly literature has pointed out that, as voters grow older, their social situation stabilizes and clearer attitudes and partisan identities emerge (Dalton 2000, p.30-31; Evans 2004, p.176-177; Schmitt-Beck et al. 2006). We may therefore expect the aging process to be correlated with other variables such as a person's income, education, political knowledge and interest. To what extent is thus inertia necessary for understanding voter stability?

In the context of turnout research, Strate et al. (1989, p.443-5) argue that, if all the variables that have been usually employed as a surrogate for age did really provide the reason why age affects the likelihood of voting, then age would have lost significance in all those models that include them. But the fact that this does not happens is a signal that there is something else about age that is not taken account of. The same argument may be used here. It is obvious that if all those variables mentioned before do not render age insignificant when explaining vote-switching (and they never do), there must be something else that does. This 'some-

thing else' might well be the effect of inertia, as the reason why older voters tend to switch less than the rest should be strongly related to the fact that, if only for probabilistic reasons, they are more likely to have repeated the same choice more than once. If inertia is essential in order to understand the tendency for older voters to remain loyal to a party, then including this variable together with other factors associated with the aging process should render age redundant in a model of vote-switching. I therefore hypothesize that:

H4: Young voters are significantly more likely to switch their vote.

H5: The effect of age is explained to a large extent by the accumulation of inertia. So, adding choice repetition to a model of vote-switching, should greatly diminish the effect of age.

3.4. Data and methodology

In order to test these hypotheses, I will use the four inter-election panel surveys that are available as part of the Dutch Parliamentary Election Studies (DPES). The elections with available panel studies are 1981-1984-1986, 1986-1989, 1989-1994 and 2002-2003 (van der Eijk et al., 1997b,a; Anker and Oppenhuis., 1997; Irwin et al., 2005). Most panels have three waves and cover two different elections. The first wave is a pre-election survey. Respondents were then re-interviewed after that election (second wave) and once again after the following election (third wave). The only exception to this rule is the 1981-1984-1986 study¹, as respondents had also been interviewed before and after the 1981 election. Thus, these studies provide information on vote recall for three consecutive elections: the most recent one (t), the previous one (t-1) and

¹Note, however, that only the 1984-1986 part of the study contains the propensity to vote for each of the parties which, as will be explained, is one of the key variables of this study. This is why information from the 1981 study will only be employed in order to build a variable accounting for the number of times that individuals changed their vote.

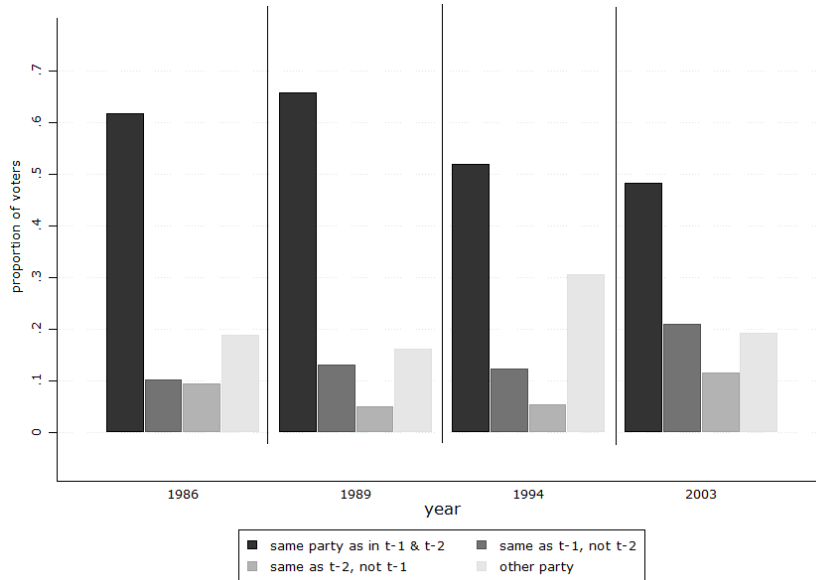
the one before that (t-2).²

The main arguments of this chapter are built upon the assumption that individuals have a tendency to stick with the same party and to not defect unless something happens that critically affects their satisfaction with the latter. As shown in Chapter 1, national election surveys show this tendency to be present in every election. Indeed, that is also corroborated by the Dutch panel studies employed here, with the added value that the longitudinal nature of these data enables us to get a more accurate picture of individual changes over time. Figure 3.1 contains the following information for each of the four studies analyzed: a) the proportion of voters that chose the same party in the three elections for which information is available; b) those who chose the same party in the previous two elections (t and t-1), but not three elections before (t-2); c) those who had switched at t-1 but then switched back to the party they had voted for three elections before (ie. party t = party t-2); and finally, d) those who never voted for the same party (or, at least, not during the previous three elections). As shown in the figure, the percentage of voters choosing always the same party outweighs any of the other categories. Even in elections with extraordinarily high numbers of switching voters, such as those in 1994 and 2003, about 50% of the voters or more had not changed their vote for at least three elections. Moreover, the percentage of people who repeated their last choice – that is, regardless of whether they had voted for that party two elections before or not – ranges from 64% in 1994 to 79% in 1989. Thus, it seems that an overwhelming

²In the case of the 1981-1984-1986 study, questions concerning vote choice were asked after the corresponding election. This is true for most respondents in the other three studies too, as most of them had participated in a previous survey. Thus, information on party choice at the election previous to the study (which corresponds to t-2 here) was given by these respondents just after that election took place. However, each study also incorporates an additional number of respondents that had not been previously interviewed. For these respondents, party choice at t-2 was asked during the first wave of the study – that is before the t-1 election took place. In principle, asking the question before the election should avoid contamination from their most recent vote in voters' recall. I compared results between the 1981-1984-1986 study and the rest and no significant differences arose.

percentage of voters tend to stick with the same party, even in elections where the levels of vote-switching are extraordinarily high.

Figure 3.1: Proportion of voters by past behavior



But, why the focus on the Dutch case? The reasons of doing so are twofold. First of all, Dutch studies are the only panels that systematically provide a non-ipsative measure of electoral utility for at least all the parties represented in the Parliament.³ In addition, the Netherlands presents some particularities that makes it suitable as a case for study.

Let us focus on this second reason first and come back to the other one in a while. As can be seen in Figure 3.2, Dutch levels of electoral volatility –in the terms defined by Pedersen (1983)– are clearly above the

³Other parties that may have chances to obtain representation according to the pre-election surveys are usually included as well.

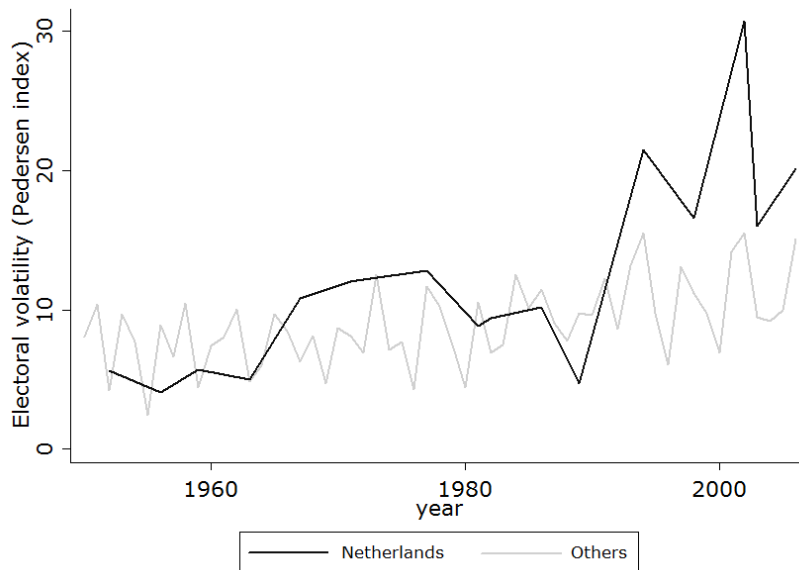
average of other established democracies.⁴ This is especially true since the 1990s, as the Netherlands is the country where electoral volatility has increased the most in recent decades. The 1994 general election marked an inflection point in the recent history of Dutch politics. The two parties in the coalition government (the Labor Party and the Christian Democratic Appeal) experienced a landslide defeat, losing 8% and 13.1% of the votes respectively. For the Christian Democrats this loss meant much more than a simple defeat, as for the first time since 1918 they were not pivotal and were excluded from the new coalition government that was formed after the elections. The consequences for the party system went even further. The average index of fragmentation after 1977 in the Netherlands was 3.9 parliamentary parties⁵ In the period between 1994 and 2003, the average went up to 5.3. Moreover, in the 1994 election the effective number of parties rose by 1.7 points from 3.75 in 1989. Thus, the day after that election voters found themselves in a different scenario, with a more fragmented parliament and a somewhat different party system. About 30% of the respondents in the post-election survey of 1994 declared themselves to have voted for a party that they had not voted for in at least one of the previous two elections. Arguably, many of them had to re-evaluate whether they would stay with the newly chosen party or whether they would rather switch back to their former choice. Indeed, it looks like political entrepreneurs took advantage of this new scenario, judging from the sudden changes in the vote share that many parties would continue to experience, together with the emergence and disappearance of new parties that has marked the beginning of the 2000s. It is not the intention of this chapter to look into the in-

⁴The other countries are Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, Malta, Norway, Sweden, Switzerland, United Kingdom, Greece, Portugal, Spain (in these three countries, the first 3 elections after the transition to democracy we excluded), plus Australia, Canada, New Zealand and the United States (elections to the House of Representatives). I am very thankful to Peter Mair for having provided me with these data.

⁵As calculated by Laakso and Taagepera (1979). Data from the Comparative Political Dataset I: 1960-2006 (Armingeon et al., 2010).

tricacies of this change, but to focus on the power of inertia even in a changing scenario like this. With most institutions remaining constant, the Netherlands provides an excellent opportunity to test the mechanisms of inertia under very different scenarios of volatility. In fact, if inertia is still found to operate during the years where instability is pervasive and most people seem to have had incentives to change their vote, that would provide a very robust test in favor of the mechanisms that are proposed here.

Figure 3.2: Evolution of electoral volatility in the Netherlands compared to the average in other established democracies



The other reason that justifies the selection of Dutch data is even more important for the aim of this study. Since 1982, Dutch surveys contain a question that has later on been asked in many other survey

studies in Europe⁶ and employed as both dependent and independent variable in much published work (see van der Eijk et al., 2006, for some examples): the propensity to vote for a given party, which, in its English translation, looks like this:

“Some people are quite certain that they will always vote for the same party. Others reconsider in each case to which party they will give their vote. I shall mention a number of parties. Would you indicate for each party how probable it is that you will ever vote for that party?”

A card is presented, where Category 1 is labeled ‘I will certainly never vote for this party’ and category 10 is labeled ‘I will certainly vote for this party at some time’

The question intends to be an empirical observation of the electoral utility that each voter would obtain from voting for each political party, and it has several advantages that are essential for the purpose of this study. First, the measure is available for every alternative, providing information with regard to all the parliamentary parties and not only with regard to the one that voters feel more attached to. Secondly, utility measures are non-ipsative in that they do not sum to a fixed total. Respondents may, therefore, declare themselves very attracted to several parties, or to be not at all attracted to any. A third important advantage of this measure is that it performs very well in predicting choice. Van der Eijk et al. (2006) have shown that the percentage of correctly predicted cases derived from using actual choice as the dependent variable is not very different from the one obtained when declared utility is employed instead. Moreover, the percentage of respondents that give the highest score to the party that they actually chose is 93% and above in surveys conducted in the Netherlands and elsewhere (Tillie, 1995; van der Eijk and Franklin, 1996; van der Eijk et al., 1999). Electoral utilities measured this way do

⁶Including the European Election Studies from 1989 onwards and national election studies in countries such as Britain, Germany, Ireland and Spain among others (van der Eijk et al., 2006, p.432)

also perform much better in terms of matching between choice and score than other non-ipsative measures such as thermometer scores commonly used in analyses of directional voting (eg. Rabinowitz and Macdonald, 1989; Macdonald et al., 1991). Moreover, they have been demonstrated not to be an artifact of a person's recent choice and to meet specific requirements that are necessary for their validity as measures, such as an internal level of measurement and no loss of information because of the limited resolution of categories (Tillie, 1995).

Hence, party utilities permit us to overcome the limitations of previous research by employing information on voters' declared preferences for each of the parties. This will be done in several ways. First, party utilities will be employed to compute the gap between the utility of the chosen party and the rest. A lagged version of this variable will also be introduced⁷ in order to investigate if the gap increases for people who have repeated the same choice several times in a row. Second, utilities will then be employed to investigate the mechanisms in more detail. Thus, I will test whether parties that have been voted for several times yield more utility by the time that the next election takes place, and whether the rest of the parties yield even less utility. Lastly, utilities will be used to investigate to which extent repeatedly voting for a party does still have a significant effect after the declared preferences of voters are controlled for. After this, they will also be employed as controls in yet another model of vote loyalty aimed at showing how the effect of age can be made redundant by including an indicator of repeated choice.

In those models where party utility is used as dependent variable, it will be necessary to transform the dataset so that the unit of analysis is not individuals but the utility that each individual gets from each of the parties (van der Eijk et al., 2006). In practice, this simply implies a further disaggregation of the data within the individual that indicates how much each of the possible choices is preferred. The procedure is the same as required when using conditional logistic regression (McFadden, 1974) and consists in turning the original dataset, organized as in Table

⁷As information on utilities was also retrieved after the t-1 election.

3.1, into another one that has as many rows as available alternatives (see Table 3.2). As this results in a multiplication of cases (as many as parties * individuals), standard errors must be corrected in some way. One way is to weight the cases in the stacked dataset to the original number of respondents. A second solution is to cluster standard errors by respondent. Finally, it is also possible to use a random-effects hierarchical model where respondents are used as a higher level. Here, I will present results with clustered standard errors, but substantial results were the same regardless of the method used.

It might be argued that, given the multi-level structure of the data, a hierarchical model using the party as a level of aggregation should be employed. This logic is, however, not very reasonable in this case. As Van der Brug, Franklin and Toka (2008) argue, not only do the parties contained in the data not represent a random sample from the population of parties but also their number is not large enough to employ a hierarchical model without raising the probability to obtain a type-II error. Instead, the parties are treated in the same way as are the choices in a discrete choice model. Models introducing fixed effects by party were also employed but, as will be shown, they did not produce substantial differences.

Table 3.1: Original dataset

Case ID	Dependent variable	Individual-specific variable	Party-specific variable (party 1)	Party-specific variable (party 2)	Party-specific variable (party 3)
1	1	53	0	0.26	0.38
2	3	25	0.4	0	0.06

3.5. Findings

According to the first hypothesis (H₁) the gap between the chosen party and the other alternatives should increase for voters that have supported the same party in several elections. In order to test this, a measure

Table 3.2: Stacked dataset

Case ID	Dependent variable	Individual-specific variable	Party-specific variable
1 (party 1)	1	53	0
1 (party 2)	0	53	0.26
1 (party 3)	0	53	0.38
2 (party 1)	0	25	0.4
2 (party 2)	0	25	0
2 (party 3)	1	25	0.06

of that gap was computed.⁸ Table 3.3 shows the average of this gap across three different groups of voters: those who reported having voted for the same party in the three waves covered by the surveys, those who had already supported the most recently chosen party on another occasion, and those who had never chosen that party before.⁹ Results in Table 3.3 clearly show that the average gap is significantly different across the three groups, increasing exponentially with the number of times that the same choice has been made. In their work, Butler and Stokes (1974) suggested that it is enough with three consecutive elections voting for the same party in order for voters to remain ‘immunized’. Here, however, the time span of each of the panel studies goes as far back as 3 general elections, so it is not possible to see whether the tendency ceases to work after that.

Table 3.3 provides evidence that loyalty is associated with a higher distance between utility for the chosen party and the other alternatives, although it says little about causality as the reason why voters remain loyal may indeed lie in this higher distance. I do not claim that causality goes only in one direction, as preferences and voting behavior are likely to reinforce each other. But in order for hypothesis (H1) to work, we

⁸Following the formula: $gap = \frac{\sum(U_c - U_i)}{N_i}$, where U is the utility that each party yields as measured by the propensity to vote question, the subscript ‘c’ refers to the chosen party and ‘i’ to each of the non-chosen parties, and therefore N_i is the total number of non-chosen parties.

⁹At least during the period covered by the panel studies.

Table 3.3: *Gap between chosen party and the other of alternatives. Means across groups*

# times voted for most recent choice	Average gap	Difference	N
1	5.187	–	667
2	5.714	0.527***	652
3	6.599	0.885***	1,673

*** significant at $p < .001$; two-tailed test

should see increases in the gap as parties are repeatedly chosen.

Table 3.4 shows the result of regressing the gap variable on a dummy indicating whether the voter had supported the same party two times before the most recent election (that is, at $t-2$ and $t-1$) or not.¹⁰ The model also contains a lagged version of the dependent variable measured at the previous election, which enables us to investigate increases or decreases in the gap beyond its previous levels.¹¹ As expected from H1, the gap between utilities for the chosen party and for the other alternatives becomes significantly larger for voters that had made the same choice for at least the former two elections (Model 1.1). Moreover, substantial results remain the same after a battery of socio-demographic controls was

¹⁰Note that the purpose of this critical test is to see how preferences evolve *after* having repeated one's vote. Information on voting behavior at the most recent election is, therefore, not employed, for it is measured at the same time as the dependent variable.

¹¹As in the rest of the models, the data were multiply imputed in order to avoid loss of efficiency and possible bias from missing cases (Rubin, 1987, 1996). However, the proportion of missing cases was not very high for any single variable – it was never above 5%. For this reason, the standard number of 5 imputations was used. Substantial results did however not differ before and after imputation. Multivariate normal regression, as implemented by `mi impute` in Stata 11, was the method used for imputing the data, following Allison (2000) to arrange categorical variables. The reported adjusted R^2 's were calculated using Fisher's z transformation to apply Rubin's rules (for more details, see Harel, 2009). Besides all the variables included in these models, other variables such as unionization, social class, religion, opinion on different issues, coalition preferences, province of residence and so on were used in the imputation process. Additionally, cases were weighted to prevent results from being influenced by the different number of respondents in each of the surveys.

introduced (namely, political interest, level of education, gender, marital status, church attendance, social class and urbanization of place of residence), as can be seen in Model 1.2.¹² Interactions between previously repeated choice and year dummy variables were then introduced in order to see whether this effect varies across election years and, in particular, if it is significantly smaller for 1994 (the year with the largest amount of switching). However, none of them came up statistically significant at $p < .05$, suggesting that repeatedly voting for a party molds voters' preferences even at times when an exceptional number of voters decide to switch.¹³

This piece of evidence tells us how preferences evolve, but does not specify how this process takes place. It does, for example, not tell us whether the gap becomes larger because the chosen alternative yields higher utility by the next election, or simply because utility decreases for the other alternatives while preferences for the chosen party remain intact.

Hypotheses H2a and H2b respectively claimed that parties that have been repeatedly chosen should yield higher utility, while the opposite should happen for those parties that have been discarded on several consecutive occasions. In order to investigate how utilities for different parties change over time, it is necessary to stack the data as explained in the previous section so that the dependent variable is measured at the party level. In this case, the dependent variable is party utility at the most recent election (t). Utilities were regressed on several variables: first, a dichotomous variable that indicates whether a party had been chosen at the previous election ($t-1$); second, another dichotomous variable (named 'previously loyal voter') accounting for whether the voter had chosen the

¹²It might be argued that the relevant gap to study should be the one between the chosen party and the party that yields the highest utility among the other alternatives. Both measures were employed and results were substantially the same (see Table 4.3 in the Appendix).

¹³The interaction is positive and significant at $p < 0.1$ for the 2003 election. This is weak evidence that the effect of inertia was even stronger at that particular election, which in any case does not contradict H1.

Table 3.4: Models of the average gap between the chosen party and the rest of the parties at the most recent election (t). Linear regression

	(Model 1.1)	(Model 1.2)
Formerly loyal voter (repeated choice at t-1)	0.502*** (0.084)	0.447*** (0.087)
Gap t-1	0.278*** (0.031)	0.265*** (0.032)
<i>Controls:</i>		
Gender (1=female)		0.172** (0.075)
Political interest (0-1=max)		0.069 (0.126)
Education (0-1=max)		0.089 (0.141)
Class (1=white collar)		0.144* (0.079)
Church attendance (0-1=max)		-0.232** (0.094)
Urbanization (0-1=max)		-0.047** (0.022)
Election year dummies	YES	YES
Constant	4.638*** (0.209)	5.036*** (0.291)
Observations	3,047	2,888
Adjusted R ²	.129	.132

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1; two-tailed tests.

same party before (at t-2); and third, an interaction between the two. This enabled me to distinguish the effect of a) being chosen one time, b) being chosen for a second consecutive time, and c) not being chosen for a second consecutive time.¹⁴ Additionally, a lagged measure of party utility at the previous election (t-1) was also used in order to make the model dynamic, as I am interested in effects that are produced beyond previous levels of utility.

Table 3.5 shows the results.¹⁵ As expected, parties that were supported in the previous election tend to yield higher utilities by the time the next election takes place (this is the coefficient for the main term 'chosen party at t-1'). Moreover, the chosen party yields even higher utility by the next election when the voter had previously supported that party (the interaction term). These two coefficients provide support for H2a, suggesting that preferences for parties rise as these are repeatedly chosen. Lastly, when voters had supported the same party in the previous two elections, the utility yielded by any other party suffered from an average significant decrease when the next election came around (as shown by main term 'previously loyal voter'), which is consistent with hypothesis H2b. These effects are robust to the introduction of fixed effects by party (see Table 3.9 in the Appendix), and are similar for elections with very different levels of volatility.¹⁶ Thus, as theorized, repeatedly voting for a party increases the gap between the chosen party and the rest be-

¹⁴The reference category is thus parties that were not chosen at the previous election (t-1) by voters who changed their choice.

¹⁵Here, too, the interest is in how utilities evolve after parties have been chosen. Thus, information on the most recent choice was not employed because it was measured at the same time as the dependent variable.

¹⁶Only two interactions with year dummies came out significant (see Table 3.9 in the Appendix for a model with the significant interactions). First, having voted for a party once had an even stronger effect in the 2003 election (in other words, parties that were voted for in 2002 but not in 1998 yielded particularly high utilities by the 2003 election). Second, having been repeatedly chosen had a positive but significantly smaller effect in 1994 than in the rest of the years. None of these interactions contradict Hypotheses H2a and H2b, though, suggesting that the same mechanisms keep operating even in elections with distinctly high levels of vote-switching.

cause preferences for the chosen party rise whereas preferences for the other alternatives tend to decrease.

Table 3.5: Models of utility change at the party level. Dependent variable: party utility at most recent election (t)

	(Model 2)
Previously chosen party (at t-1)	0.965*** (0.091)
Previously loyal voter (vote at t-2 = vote at t-1)	-0.190*** (0.039)
Previously chosen party * previously loyal voter	1.054*** (0.096)
Party utility $t-1$	0.625*** (0.009)
Year dummies	YES
Constant	1.305*** (0.053)
Observations	34,445
Individuals	3,467
Adjusted R ²	0.536

Robust standard errors (clustered by individual) in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; two-tailed tests.

Now, according to H₃, repeatedly voting for a party should impose further constraints on future party choice beyond voters' preferences. In other words, when voters with similar preferences are compared, those who have voted for the same party more than once will be more likely than the rest to repeat their choice. To test this, I regressed vote loy-

alty at the most recent election (measured by a dummy variable where 0=switched, and 1=did not switch) on indicators of previous repeated voting and party preferences. With regard to this latter variable, voters are expected not to switch when their formerly chosen party does not (or does no longer) yield a high utility, but also when other alternative parties do yield a high utility. Regarding the number of alternatives that should be included, only the coefficients for the chosen party and for the other party with the highest utility have a significant effect on loyalty (see Table 3.10 in the Appendix), suggesting that an average voter only has two parties in mind when considering whether to switch. Thus, utilities for the rest of the parties were excluded in subsequent models.

Results, shown in Table 3.6 (Model 3.1), are consistent with Hypothesis H3: voters that have voted for the same party at least two times are significantly more likely to repeat the same choice by the time the next election comes around. This effect is significant even after declared preferences for parties are controlled for in the model, suggesting that past choices exert further constraints on voters' future choices.

Hypothesis H4 claimed that the effect of loyalty accumulates over time. If only because the chances to have repeated one's choice several times are higher as individuals grow older, we should expect older voters to present much more stable vote patterns as compared to young adults. Model 4a (in Table 3.7) introduces the effect of age.¹⁷ Not only is this effect positive and significant, but also very strong indeed. The probability to remain loyal to the party supported at the previous election is .55 for voters between 21 and 25 years old and increases dramatically with age, reaching .76 among those over 81 years-old. The question is to what extent inertia serves us to understand this effect.

Hypothesis H5 argues that in order to render the effect of age on vote loyalty redundant, it is necessary to add the effect of inertia into a model containing conventional variables that are related to the passage of time

¹⁷Note that in the 1994 study age is measured in 13 categories corresponding to 5-year intervals. For the sake of coherence, age was recoded this way in the rest of the surveys too.

Table 3.6: *Logit model of vote loyalty (0=switched at the most recent election, 1=voted for the same party as in previous election)*

	(Model 3)
Previously loyal voter (vote at t-1 = vote at t-1)	0.773*** (0.106)
Utility of previously chosen party	0.635*** (0.058)
Utility of next most preferred party	-0.663*** (0.055)
Constant	0.369 (0.473)
Year dummies	YES
Observations	3,222
Pseudo R ²	.345

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1; two-tailed tests.

and tend to be used in studies of vote loyalty. Model 4b includes several indicators of political sophistication that have been used in published work on vote loyalty and are likely to run parallel to the aging process: political interest (eg. Zuckerman et al., 1998) and level of education (eg. Söderlund, 2008). Together with these, other variables related to the stability of social networks were introduced (namely civil status, which is also expected to change with age, religious attendance and urbanization of the place of residence). Other controls, such as utility of the previously chosen party and of the first other alternative were also introduced. As expected, the effect of age shrinks with the introduction of these variables, although it remains significant at $p < .05$. Model 4c adds a measure of previous loyalty, which is codified as 1 if the voter had supported the same party in the last two elections and 0 if she had not. As can be seen, doing so further reduces the effect of age, making it statistically indistinguishable from zero. In turn, having repeated one's choice at the previous election increases the probability of doing so at the next election, the effect being significant at $p < .001$. This suggests that previous loyalty is essential in order to understand why the probability of changing one's vote increases with age.¹⁸ Moreover, when interactions of year with age and with former loyalty were introduced, none of them came out significant at $p < .05$.¹⁹ Results are, therefore, consistent with the hypothesis that inertia accumulates over time and that this accounts for an important part of the effect of age on switching; and this effect is similar across elections.

¹⁸ Actually, it is only necessary to introduce vote loyalty and political interest without any other control in order to render the effect of age insignificant.

¹⁹ Only the interaction with the 1994 election came out significant at $p = 0.09$. The coefficient indicates that the effect of previous loyalty was somewhat smaller at that exceptional election.

Table 3.7: Logit model of vote loyalty. DV: Voting for the same party as in the previous election (vote t = vote $t-1$) or not

	(Model 4a)	(Model 4b)	(Model 4c)
Age (13 categories)	0.079*** (0.013)	0.045** (0.019)	0.029 (0.020)
Previously loyal voter			0.662*** (0.114)
Utility of previously chosen party		0.699*** (0.059)	0.644*** (0.060)
Utility of next most preferred party		-0.683*** (0.057)	-0.644*** (0.057)
Political interest (0-1=max)		0.697*** (0.174)	0.722*** (0.177)
Church attendance (0-1=max)		-0.334** (0.140)	-0.258* (0.143)
Education (0-1=max)		0.268 (0.192)	0.184 (0.197)
Gender (1=female)		0.174* (0.101)	0.153 (0.103)
Civil status (1=married/cohabiting)		0.054 (0.111)	0.009 (0.113)
Urbanization (0-1=max)		0.237 (0.155)	0.247 (0.159)
Constant	0.232** (0.109)	-0.125 (0.530)	-0.304 (0.529)
Year dummies	YES	YES	YES
Observations	3,462	3,053	3,053
Pseudo R ²	.016	.344	.354

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1; two-tailed.

3.6. Conclusion

That voting behavior is hard to change for most individuals is usually taken for granted, but attempts to explain this mechanism are very rare. Political science has usually focused on the development of party attachments and concluded that these tend to become stable with age, but instead of leading to a better understanding of the way in which inertia operates, discussions about the paradigm that best serves to explain the presence of this kind of inertia have populated the literature.

This chapter is an attempt to shed more light on the reasons why the vote is so difficult to change. Inertia has been argued to affect vote stability in two complementary ways. On the one hand, repeatedly voting for a particular party affects voters' distribution of preferences, enlarging the gap between the chosen party and the rest. Stability does, therefore, not necessarily imply absolute immobility. Parties that have been chosen in several elections are increasingly preferred over the rest, while the possibility of ever supporting any other party is increasingly ruled out as choices are repeated over time. Inertia does not imply that voters are not able to change their vote, but by increasing the distance between the different alternatives it makes it more difficult for individuals to find another party that they feel similarly attracted to. On the other hand, inertia seems to have an additional effect on vote stability in addition to its impact on party preferences. When comparing voters with a similar distribution of preferences, those who have voted for the same party in the last few elections have a significantly stronger tendency to repeat their choice. Thus, repeatedly voting for a party imposes further constraints on voters' future choices.

Far from being equally distributed, inertia tends to accumulate over time. Thus, the more elections that a voter experiences, the higher are the chances that the same choice is repeated. Here, the effect of inertia has been shown to be essential in order to understand higher levels of party loyalty among older voters. In fact, introducing previous loyalty and other variables that change with the life course, and especially political

interest, rendered insignificant the effect of age on the probability to stay loyal to a party .

This chapter has shown evidence from several Dutch panel studies that include a non-ipsative measure of party utility. It contributes to the literature by testing how preferences evolve for both the chosen party and the rest of the alternatives. Moreover, the Dutch case has provided the opportunity to test the mechanisms explained before under very different conditions: low and high levels of volatility (1986 and 1989; and 1994 and 2003, respectively), and one exceptional raise in the levels of instability in 1994. Even if the data did not allow taking account of former repetition of choices beyond the previous two elections, the effect of inertia was present in the four scenarios. In general, effects are not significantly different across elections, and even when they are, results do not contradict the theory. Thus, the effect of repeated vote seems to work in a similar fashion regardless of how volatile elections turn out to be – at least in scenarios such as the Dutch case and most other advanced democracies where volatility does not tend to come together with severe party system meltdown between elections.

This piece of research provides evidence that is consistent with the presence of inertia in voting behavior, and is aimed at encouraging researchers to pay attention to this important phenomenon when trying to explain electoral change. Taking into account the impact of inertia is essential when trying to understand the mechanisms of vote loyalty. Moreover, the accumulation of inertia over time has very important consequences because it implies that the greatest part of the change observed in elections is likely due to the effect of young switchers. Electoral studies should, therefore, be more aware of the implications of inertia and take account of the responses of young voters when modeling change.

Indeed, the existence of inertia does not preclude the possibility of switching. As has been shown in this and previous chapters, many voters tend to change their vote between consecutive elections. The next chapter provides a theoretical model aimed at helping us understand why vote-switching varies across elections. In this account, the effect of iner-

tia and the impact of younger voters will be put together with factors that may lead voters to question their previous vote and decide to switch. Hypotheses will then be tested with survey data from a number of different elections in the six countries that were analyzed in Chapter 2.

3.7. Appendix: Additional tables*Table 3.8: Explaining the gap between the chosen party and the next party with the highest utility*

	GAP
Previously loyal voter (vote at t-1 = vote at t-2)	0.417*** (0.099)
Gap at t-1	0.361*** (0.024)
Political interest (0-1=max)	-0.222 (0.160)
Education (0-1=max)	-0.599*** (0.185)
Gender (1=female)	0.057 (0.096)
Social class (1=white collar)	0.123 (0.098)
Church attendance (0-1=max)	-0.573*** (0.129)
Urbanization (0-1=max)	-0.066*** (0.026)
Constant	2.731*** (0.279)
Year dummies	YES
Observations	2,888

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1; two-tailed.

Table 3.9: Party utilities. Additional models with significant interactions with period dummies (first model) and with fixed effects by party (second model)

	Party utility (with interactions)	Party utility (fixed effects by party)
Previously chosen party	0.675*** (0.137)	1.092*** (0.088)
Previously loyal voter	-0.235*** (0.045)	-0.203*** (0.038)
Previously chosen * previously loyal	1.285*** (0.109)	0.903*** (0.095)
Party utility at t-1	0.626*** (0.009)	0.557*** (0.009)
Previously chosen * 1994 election	0.004 (0.214)	
Previously loyal * 1994 election	0.166* (0.087)	
Previously chosen * previously loyal * 1994 elec	-0.500** (0.225)	
Previously chosen * 2003 election	0.481*** (0.106)	
1986 election	0.000 (0.000)	0.000 (0.000)
1989 election	0.108 (0.067)	0.167** (0.066)
1994 election	-0.047 (0.080)	-0.030 (0.051)
2003 election	0.122** (0.050)	0.206*** (0.050)
Constant	1.343*** (0.057)	2.321*** (0.072)
Party dummies	NO	YES
Observations	34,445	34,445

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1; two-tailed

Table 3.10: Vote loyalty. Additional models with utilities from five parties (model 1) and interactions of age and previous loyalty with year (model 2)

VARIABLES	Loyalty (utilities)	Loyalty (interactions)
Age (13 categories)		0.023 (0.052)
Previously loyal voter		0.859*** (0.250)
Utility formerly chosen party	0.715*** (0.057)	0.642*** (0.060)
Utility next most preferred party	-0.754*** (0.056)	-0.639*** (0.057)
Utility 2nd other most preferred party	0.031 (0.031)	
Utility 3rd other most preferred party	0.029 (0.037)	
Utility 4rd other most preferred party	0.025 (0.037)	
Political interest (0-1=max)		0.724*** (0.177)
Church attendance (0-1=max)		-0.258* (0.144)
Education (0-1=max)		0.182 (0.199)
Gender (1=female)		0.143 (0.103)
Civil status (1=married/cohabiting)		0.026 (0.114)
Urbanization (0-1=max)		0.235 (0.161)
Age * 1989 election		0.082 (0.085)
Age * 1994 election		0.021 (0.062)
Age * 2003 election		-0.014 (0.057)

(Continued on next page)

Table 3.10 – continued from previous page

Previously loyal voter * 1989 election		-0.192	
		(0.398)	
Previously loyal voter * 1994 election		-0.521*	
		(0.309)	
Previously loyal voter * 2003 election		-0.078	
		(0.293)	
Constant	0.619	-0.433	
	(0.484)	(0.589)	
Year dummies	YES	YES	
Observations	3,211	3,053	

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1; two-tailed.

CHAPTER 4. “SO LONG, FAREWELL, AUF WIEDERSEHEN, ADIEU”. A COMPREHENSIVE THEORY OF SWITCHING

4.1. Introduction

In the previous chapter, habituation processes were shown to play an important role in voting behavior. Past decisions are not easily disregarded, and voters clearly bring them into the voting booth. The impact of experience relates to the way in which voters learn their way around politics and use their former knowledge to inform future decisions. Before any subsequent decision is made, voters will first look back and assess the party that they have previously voted for. Empirical evidence has, in fact, demonstrated that switching voters are significantly more likely than loyal voters to give their formerly supported party a bad evaluation even after attitudinal, ideological and demographic characteristics are controlled for (Söderlund, 2008). Voters’ assessments are not made in an empty space, the formerly chosen party being judged according to where it stands in relation with the other competitors. But it is by assessing one’s party that one may start considering the possibility of defecting from it and voting for another.

Vote-switching can be motivated by very diverse reasons. Arguably, voters will decide to defect from a previous choice on the basis of sincere preferences, when they do not –or no longer– feel attracted to it, or of tactical considerations. Studying the dynamics of switching requires, however, to go deeper into the reasons that provoke voters to change their

vote. What is extraordinary about party shifts is perhaps not the fact that they exist, but the amount of variation that is found when different elections or/and countries are considered. Peaks of switching are frequently found at times and, although these are usually followed by subsequent periods of stability, they sometimes lead to new equilibria that modify the average baseline of switching in particular countries. It seems clear that some parties and under some circumstances have higher chances to be defected from. The actions and characteristics of parties, as well as election-specific factors, are very important elements to be taken into account in the study of vote-switching. And, in spite of this, they are also commonly overlooked or even disregarded factors. As Tavits (2008a) points out, switching is not merely a matter of demand but also of offer. Thus, voters must be taken into account together with the actions and characteristics of parties.

In this chapter, I focus on individual, election and party characteristics that are important in order to understand the dynamics of vote-switching. Far from enumerating possible variables that impact on the probability to switch, I develop and then test a theory of how switching is expected to come about and to vary across individuals and elections. The chapter is organized as follows. The next section discusses the literature on volatility and the caveats therein. Theory and hypotheses are then introduced in Section 2, followed by a brief explanation of the data (Section 3) and several methodological issues (Section 4). Section 5 presents and discusses the findings. Finally, the chapter ends with a conclusion.

4.2. Vote-switching and electoral volatility

Electoral change has usually been studied from separate perspectives which very rarely talk to each other. Research on vote-switching is, in general, scarce and lacks comparability. Switchers have been partially studied by focusing on one or a small number of elections, often in the same country and with explanations that tend to only include individual-specific variables. The literature on electoral volatility, on the other

hand, has almost exclusively focused on cross-country comparisons using aggregate data as their only source. Neither of these perspectives has, nevertheless, been completely satisfactory. Explanations of electoral volatility should not only combine different levels of analysis, linking the demand side (voters) with the supply side (parties), but also they should be aimed at analyzing the sources of change over time. As Mair (2005, 2008) pointed out, even if electoral volatility has only gradually increased in Western European democracies since the 1990s, the fact that exceptional peaks of high volatility are found more often than ever before should lead scholars to find explanations for the dynamics of change over time.

One of the main problems of research on net volatility is that, while most of its assumptions relate to vote-switching, analyses are based on aggregate data. It is, therefore, not surprising that many of the mechanisms that should, in light of decades of research on electoral behavior, explain a great deal of the variation of vote (in)stability, are however found to have unclear effects on volatility. For example, one of the most obvious reasons why voters may decide to change their vote is because they do not have strong preferences for the party previously voted for (Pedersen, 1979; Tavits, 2008b). As ideological distance is an indicator of party preferences (Downs, 1957), it should thus have an important effect on vote instability. However, aggregate research has found very weak evidence that factors related to the ideological space of competition impact on net volatility (Bartolini and Mair, 2007). This has usually been taken as a proof that elements other than spatial competition are much more important in order to explain instability, whereas it may only be reflecting the inadequacy of attempting to encompass the whole process of spacial competition by merely using aggregate indicators of policy distance between the parties.

Difficulties found in measuring preferences or attachments to particular parties at the aggregate level have led research on net volatility to put all the emphasis on other indicators. But, these, too, have produced erratic results. In their work, Bartolini and Mair (2007, p.181)

identify encapsulation as one of the most important factors that determine vote instability. The concept of encapsulation relies upon Lipset and Rokkan's (1967) definition of cleavages, which Bartolini and Mair (2007, p.200) define as a "form of closure of social relationships". In their view, the strength of cleavages is a consequence of closure of social mobility, which works in a number of different ways: "through marriage, educational institutions, the urban and spatial setting of the population, social customs, religious practices and so on" (Bartolini and Mair, 2007, p.207). Closure of mobility operates through the role that parties play in mobilizing closed groups of voters. Thus, it can only explain vote stability if related to the strength of voters' preferences toward the particular parties that mobilize the group where they belong. Bartolini and Mair (2007) employed aggregate measures of language use, religious heterogeneity, trade union density and party membership to prove their point, but they did so precisely because of their inability to measure party attachments when working at a level of aggregation higher than the individual voter. This strategy has, nevertheless, been followed by other scholars, who have employed indicators of union density and the size of the informal sector of the work force to prove that relatively fluid cleavage structures help explain exceptionally high levels of aggregate volatility (Roberts and Wibbels, 1999). All these measures have produced dissimilar and very unsatisfying results in the literature. One example is Bischoff (2012), who analyzes data from 21 advanced industrial democracies over a period of 55 years (1950-2005) and concludes that none of the indicators used in this regard by previous studies besides party membership are significantly related to net volatility. In her opinion, this proves that demand-side factors, such as socio-economic cleavages, do not predict vote stability, whereas supply-side factors, such as government performance, strategic incentives and so on, do. Madrid (2005) is another example of research on net volatility grounded upon untested mechanisms of vote stability. This author finds that ethnic heterogeneity is related to *more*, and not less, volatility in Latin America, which he then relates to the lack of mobilization of indigenous people by the

major political parties. In light of all this, it is evident that research at the individual level may turn out to be more helpful in order to correctly address the mechanisms of vote instability.

Not all the problems of research on this topic come from the use of aggregate data, though. Empirical evidence has demonstrated that switching voters are significantly more likely than loyal voters to give their formerly supported party a bad evaluation even after attitudinal, ideological and demographic characteristics are controlled for (Söderlund, 2008). But the dynamics of vote-switching, and the reasons why the proportion of switching voters varies over time have never been addressed so far, since analyses of one or few elections tend to be the rule. This is not to say that research on switching has not been fruitful at all. Although comparative literature is certainly scarce, interesting findings have been made by scholars focusing on switching in particular elections and from/to particular parties. Evans (1999a), for instance, demonstrates that subjective evaluations of the economy are very weakly related to switching from the Conservative party following the 1992 elections in the UK, while party images seem to matter much more.¹ Zelle (1995), on the other hand, claims that switching may be understood as a protest reaction rather than as a consequence of social dealignment.

A further complication comes from the operationalization of the concept of switching. Many researchers working at the individual level have focused on 'swing voters' rather than on switchers. 'Swing voters' are defined as cross-pressured voters that may eventually decide to go "either way" and vote for one party or another (Mayer, 2007, p.2). The concept, created in the context of the American political system, is operationalized by subtracting the voter's evaluation of the two contending candidates, 'swing voters' being those who are equally or almost equally attracted by both of them (Mayer, 2007, p.3). Besides the difficulty of translating such operationalization outside a pure bipartisan system,

¹In this case, switching is defined in broad terms as defecting from the Conservatives no matter whether the voter switches toward another party, abstains or refuses to give an answer.

the concept relies exclusively on the evaluation of different candidates, thereby failing not only to explain the behavioral phenomenon of switching but also to consider the weight that other factors may have in order to decide whether to switch parties or not. An alternative conceptualization, also in the context of American elections, is that of 'independent voters', defined as those who declare themselves not to feel identified with any particular party. The fact that many of those independents are, in fact, hidden partisans (Keith et al., 1992) is sufficient to see the limitations of a concept that, again, focuses on only one of the possible reasons that may lead people to stick with their choice: attachment to parties.

As explained in the next section, structuring factors of voting, such as social cleavages and ideology, together with short-term factors that may compel voters to defect, should be taken into account in order to study the dynamics of switching. Scholarly literature has shown that, when put together with other vote predictors, different issues have a strong and significant impact on party support on their own (see Franklin et al., 1992; van der Eijk and Franklin, 1996; van der Brug et al., 2007). This may certainly seem striking if we think of issues as the basis of spatial voting, especially since people's positions on different issues are often contaminated by their own partisan preferences (Evans, 2004). But, as Stokes (1963) points out, political parties may compete over multiple issue dimensions. For Downs (1957), ideology works as a tool that combines multiple policy issues to make politics manageable for voters. Even if ideology, understood as a left-right continuum, structures political competition in Western European democracies, it is possible that the one-dimensional space formed by ideology is broken at times, allowing parties to compete on different terms by introducing cross-cutting issues. Many scholars have pointed out that the saliency of certain issues and the perception that a party or candidate is better able to deal with them help parties attract voters from other competitors (Repass, 1971; Budge and Farlie, 1983; Riker, 1993; Petrocik, 1996; Bellucci, 2006; Green, 2007). Key (1959, p.198) went even further, stating that issues were among those factors that produce abrupt realignments in the electorate.

Leaving aside the question of when and whether they may provoke such abrupt changes, it looks like issues allow parties to play out both games, trying to attract voters that are close to them in overall policy terms as well as those that agree with them on other issues. Parties may, therefore, bring up new issues that are not part of the stock owned by other competitors in order to seek additional voters (Mair et al., 2004, p.6). This way, political parties increase the number of voters in competition and bring about electoral change.

One of the elements that populates the literature on electoral volatility is related to the electoral system and the number of parties. In Pedersen's (1979) seminal work on aggregate volatility, the number of parties has a very important role and is considered to be one of the main factors leading people to switch their vote. When the number of parties is large, the chances for a voter to find an alternative party that they feel close to are higher, which should increase the incentives to change one's vote. For Bartolini and Mair (1990), however, the effects of the electoral system on volatility are not so straight-forward as they might seem at first sight. On the one hand, systems with low proportionality may induce more vote-switching. This is so because of what Duverger (1964) called the psychological effects of electoral systems: when the electoral system reduces the chances for some parties to get seats, people may decide not to waste their vote and opt for other alternatives that have an actual chance to get elected. This might have two different consequences. On the one hand, people may just stick with parties that have chances to get seats and coin their preferences accordingly. On the other, less proportional systems may encourage people to make temporary second-best choices, defecting from their parties in order to signal their discontent and getting back to their sincere preference afterwards (this seems to be the idea suggested by Bartolini and Mair, 1990). Opposing forces may, therefore, come into play. While less proportional systems may induce more voters to switch, they will also produce a smaller number of parties, thereby reducing the opportunities to change by constraining the political supply. In aggregate research, volatility has been found to be

affected by both forces, although the effect produced by the number of parties appears to outweigh the psychological effects of less proportional systems (Bartolini and Mair, 1990, p.158).

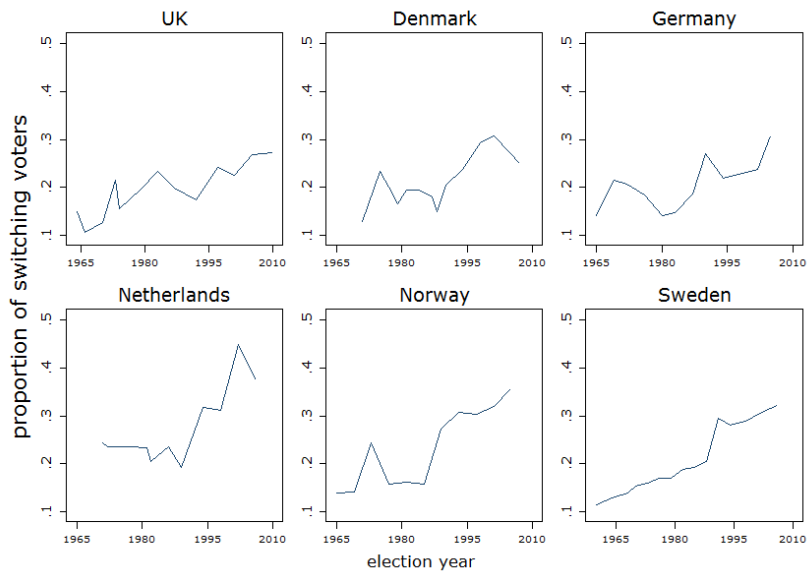
As the literatures on vote-switching and net volatility have rarely spoken to each other, it is difficult to assess whether the effects of some of the factors that have been claimed to be important at the aggregate level and to affect voter instability have any effect whatsoever on the probability to switch one's vote. Similarly, studies on vote-switching have very rarely gone beyond studying a few elections, with an almost total absence of factors at a level higher than the individual such as party characteristics or election-specific variables. A general approach to vote-switching is, therefore, virtually nonexistent in the literature. It is my aim in this chapter to overcome the limitations of both approaches and explain the dynamics of vote-switching, or gross volatility, by putting together elements from both bodies of literature.

4.3. Explaining electoral change

In order to address the dynamics of vote-switching, it is worth taking a look at Figure 4.1 below. This is a graphical representation of the data contained in Table 1.2, and that was briefly commented on in Chapter 1. What we are really observing in this graph is gross volatility, that is, the proportion of voters that declare themselves to have voted for different parties in the last two elections. When studying switching, we do not care directly about whether all those voters change in the same direction or not, which is measured by net volatility. As mentioned in Chapter 2, many of the switches observed in gross volatility tend to cancel out one another (Cees van der Eijk and Niemöller, 1983). This is evident when comparing gross and net volatility, as the latter always tends to be lower. However, parties are seldom able to capture as many new voters as they lose. Otherwise, we would observe no electoral change even with high levels of switching. In Chapter 2, it was shown that the correlation between net and gross volatility is indeed high (.72), which suggests that

switching is never random and that most voters follow identifiable patterns when they change their vote. Indeed, the high correlation between gross and net change explains why the evolution of switching in Figure 4.1 resembles very much actual volatility, shown in 2.5 of Chapter 2. Moreover, it was demonstrated that by taking into account factors that intervene in the conversion of switching into net volatility it is possible to explain at least 70% of the variance of the latter. Thus, by studying vote-switching I will also be addressing the main mechanisms behind net change.

Figure 4.1: Proportion of voters that switched their vote by election



The purpose of showing this figure now is to point to the evolution of switching, or gross volatility, over time. Several trends can be identified. First of all, there are some differences in the levels of switching

across countries. In general, the proportion of switchers during the period of study has been much higher in the Netherlands than elsewhere, while the UK has the lowest average level of all countries, with switching having never reached 30% of the voters. Since these differences are likely explained by structural factors that vary across countries, we may address the part of gross volatility that is generated by them as structural switching. By looking at Figure 4.1, though, it is not difficult to notice that the proportion of switchers varies also over time. In fact, the variation is larger within countries than between countries.² Variation over time takes place in two different forms. Very often, switching comes about in the form of small cycles. Elections seem to follow a line that is interrupted by peaks of switching. In many cases, the proportion of switching voters raises only for one or two elections and then returns to its average level. This is likely to be caused by short-term factors that make a high number of voters defect from their previous party. For theoretical reasons, I will call the amount of gross volatility that comes about in the form of these small shocks ‘cyclical switching’, as they represent periods of extraordinary change giving way to subsequent periods of ‘normality’. There are, however, other cases, in which the proportion of switchers does not return to its previous levels. This is particularly salient in these data, where volatility has, in some periods, increased to reach a new average. All these periods represent a new switching equilibrium and will be referred to as such in the rest of the chapter.

The increasing levels of switching reported in this study had, to my knowledge, never been identified before, although extraordinary peaks of net volatility coming about in the last two decades have been reported in the literature (see Pedersen, 1979; Dalton, 2004; Drummond, 2006; Mair, 2005, 2008). Given the high correlation between net and gross change, it is not strange that both phenomena follow similar patterns. Explanations of vote-switching that allow inferences across countries and over time are, however, absent in scholarly work. Researchers deal-

²The standard error of the proportion of switchers within countries is .066 and .022 between countries.

ing with net volatility have certainly addressed differences across countries, providing convincing explanations for what, in the terms expressed earlier, may be called ‘structural switching’. Peaks of volatility have, however, been shown to be much more difficult to address when only country-specific data are taken into account, while the literature dealing with vote-switching at the individual level of analysis has overlooked the problem altogether. Bartolini and Mair (1990) played down the importance of increasing volatility after the 1960s, although their data did not reach the 1990s and therefore clear patterns like the ones shown here were still not easily identifiable. Their theoretical framework, however, stresses very much the fact that, even if volatility may have increased, most voters do not cross ideological boundaries when defecting from their previous party. Making complete sense as a description, this may mistakenly lead researchers to underrate the importance of instability trends only because most of the increase is produced within ideological camps.

In order to explain the dynamics of gross volatility, it is necessary to bear in mind the different theoretical parts of gross switching that were identified at the beginning of this section. Let us start with structural switching and then move on to the others.

4.3.1. Structural switching or the normal levels of gross volatility

Structural switching is the normal amount of voters that we can expect to switch parties in a country’s average election. It comprises both tactical and sincere switches and may vary across countries on the basis of factors such as their party and electoral system. When scholars working with net volatility have attempted to find an explanation for the differences in electoral change, they have usually focused on this aspect. In this study, even if structural factors that vary across individuals will be taken account of, the number of cases is not large enough so as to account for institutional factors that vary only across countries. However, it must borne in mind that, as mentioned earlier, variations in switching

within countries are larger than between countries in the cases analyzed in this thesis.

Institutional characteristics may indeed be behind the fact that, for example, the proportion of switchers in Great Britain has never reached that of other countries, or that the record levels of switching are found in the Netherlands. On the one hand, majoritarian electoral systems have been argued to produce more switching because they generate incentives to behave strategically (see Bartolini and Mair, 1990). But this is based on the assumption that strategic considerations lead voters in those systems to present a very fluid vote. However, strategic switching tends to imply making a second-best choice when the preferred party does not stand a chance to get representation at the district level. Therefore, unless the distribution of votes changed greatly in a district, the incentives for strategic voting should remain the same and voters would have no reason to change back to their preferred party as expected by the theory. Moreover, political preferences and voting behavior are likely to stabilize in the long run, making switching more unlikely as voters grow older.

The direct impact of the electoral system as such cannot be properly addressed with a sample of six countries. However, variations in the proportion of switchers may, in fact, be importantly related to elements such as the effective number of parties, which is partially a consequence of the electoral system. Switching is expected to be higher in more fragmented party systems, as a larger number of parties increases the chances to feel close to more than one alternative and makes it easier for voters to defect (Bartolini and Mair, 1990). Fragmentation has a decisive impact on the size of parties and on political supply, and therefore on the ideological space of competition as well.

Ideological distance to parties is expected to be a key element in order to explain switching. Based on the spatial theory of voting, voters should be more likely to defect from parties that they currently locate further away from their own ideological position. Moreover, voters do not switch at random but to another party that they strongly prefer. Chapter 3 showed that utilities for the chosen party and for the most preferred

alternative are useful in order to predict switching, whereas taking account of utilities for other alternatives did not add explanatory power to the model. Thus, it seems that the characteristics of the main alternative (or closest alternative party, since both terms will be interchangeably used here) are important in order to predict switching. Greater distances between the main alternative and the voter should decrease the tendency to switch, while any other element that may make the main alternative party appealing to the voter should act in the opposite direction.

Party size is also an important factor in order to understand the normal amount of switching that is found in a particular country. Preferences for bigger parties are stronger (van der Brug et al., 2007; van der Eijk and Franklin, 1996), arguably because voters like to vote for parties that are capable enough to push forward their proposed policies. Big parties are in an extraordinary good position to defend and implement their policies, not only because they are likely to end up in office at some point, but also because they will also have a prominent position in the case of coalition governments. Electoral strength may, on the one hand, impact on the choice and preferences of voters. From this perspective, how big or small a party is need not have any independent effect on volatility, as most voters will simply stick to bigger parties because they prefer them the most. It is, nevertheless, possible that big parties may more successfully withstand the different shocks that push voters to consider defection. There is a panoply of events taking place between elections that can eventually make voters reevaluate and change their previous choice. Electoral strength may provide parties with an asset that gives their voters an extra reason to think about when considering whether to change their support. We should, therefore, expect smaller parties to have lower *retentive power* than bigger parties (Sánchez-Cuenca, 2008). Indeed, electoral rules and party system fragmentation are highly correlated with the average size of the parties in a particular country. However, while the former are expected to produce volatility by impacting, among other things, on the distance between parties and voters in a given country, electoral strength is measured at the party level and its effects are ex-

pected to vary across individuals voting in the same election.

As mentioned earlier, additional factors that may help explain the ‘structural’ component of switching are related to the strength of the links that exist between political parties and their voters. Strong attachments prevent individuals from defecting from their previously chosen party, making both net and aggregate change much less likely. Social cleavages are bound to play the most important role in this regard (Bartolini and Mair, 1990). As mentioned in the previous section, aggregate-level research has attempted to measure social encapsulation by using proxies whose accuracy may sometimes be put into question. Despite being grounded on individual affiliations to bigger aggregates, social cleavages reflect, in the voting behavior use of the term, the strength with which voters are attracted to particular parties on the basis of their social characteristics. It may, therefore, be more accurate to measure such relationships at the level of the individual voter.

4.3.2. Explaining the peaks: cyclical switching

Explaining the ‘baseline’ or structural amount of switching is, however, not enough to account for the variation in vote-switching across elections. Gross volatility shows, on many occasions, in the form of different peaks. Elections where an average number of voters change their vote are at times preceded by others with a higher proportion of switchers. This type of cyclical switching must be logically explained by the dynamics of electoral competition, whose terms are bound to vary depending on the election and the parties that we look at.

Indeed, many of the factors that produce structural switching may also explain, at times, peaks of volatility. It is, nevertheless, possible to identify some factors whose effect on switching is likely to be cyclical. One of them is governing. As simple as it may seem, being in the government is arguably the most natural trigger of switching. When parties are elected and form governments, they implement policies that impact on citizens’ evaluations. If we consider that all political parties

have a limited potential of support among voters, we may certainly state that parties that have just entered office will generally be close to fulfilling their potential. In general, parties enter office on a wave of popular support, which propitiates a certain 'honeymoon effect' during the first years. With the passage of time, though, governing parties face the task to implement policies that are sometimes unpopular and even contradictory to what they would propose had they not been in office. This is usually picked up by opposition parties, whose constant critique and attack are part of the democratic game. As a result, many voters of governing parties will tend to become increasingly disappointed as time is spent in office (Nannestad and Paldam, 1997, 2002; Paldam, 1991; Bingham Powell and Whitten, 1993). And so, support for government parties is expected to decrease over the years (van der Brug et al., 2007, p.89). We may, therefore, state that democracy itself engenders volatility. We should expect increases in switching from opposition parties toward parties that win government office which are then reversed by progressively higher levels of switching stemming from government parties to the rest of the competitors with the passage of time.

Some readers may, however, wonder whether the effect of being in office should be the same under all circumstances. Governments might, indeed, be punished for bad economic conditions or rewarded when the latter are good. Objective measures of the economy have been shown to add very little to the overall variance explained by other party-specific and individual-specific factors in models of party support (see van der Brug et al., 2007, p.118), but also in aggregate-level research (Bingham Powell and Whitten, 1993; Whitten and Palmer, 1999, eg.). However, economic conditions may indeed moderate or exacerbate the impact of being in office and, therefore, affect the magnitude of switching provoked by the latter.

When it comes to cyclical switching, it is very important to take other short-term factors into account. Be it a sincere ideological change or a signal of discontent with the previously chosen party, most of the peaks of volatility are arguably caused by issues that come about between two

particular elections. Disappointment with the previous choice may be caused by an infinite number of issues, some of them already mentioned in this section. The state of the economy, scandals of any kind, the management of certain policies or events, or the lack of attention to certain concerns by the chosen party may be the trigger that leads to defection. In the search for additional voters, parties will often try to introduce new cross-cutting issues that they think may impact on their competitors' supporters. Whether or not this strategy succeeds will depend on the extent to which these new issues appeal to other voters without dividing one's own supporters (Riker, 1986). But the mere possibility that this strategy is available to parties implies that issues must be taken into account, as they will likely generate cyclical peaks of volatility.

Other factors that are partially related to the emergence of certain cross-cutting or new issues is the emergence of party splits or of new parties that voters feel attracted to. Switching will logically be more frequent at the times when these parties appear too, and so these are elements that should also be taken into account in order to explain electoral change.

In addition to this, switching may also be related to other short-term factors such as leadership evaluation. Loyalty might suffer when voters make a negative evaluation of their chosen party's leader (Butler and Stokes, 1974), or when voters are attracted by the image of a new charismatic candidate. To be sure, leadership effects are not unrelated to political issues. Party leaders and candidates cause parties to send different signals, and these may be related to positional issues as much as they can focus on characteristics such as sincerity, honesty, management skills, strong convictions and so on, which are basically valences. Research on leader effects on voting behavior has yielded mixed results, but its impact on vote-switching has rarely been explored. As Lobo (2006) points out, the literature has mainly focused on 'gross' and 'net' effects of leadership. 'Gross' effects refer to the impact that the evaluation of particular party leaders may have on an individual's probability to support that leader's party, whereas 'net' effects measure the impact of leaders

in deciding election outcomes. When the latter has been the focus, most authors have agreed that, except on very particular occasions, the impact of leaders does not seem to be large enough so as to determine who will win or lose an election (see King, 2002). However, positive findings have been more common when researchers have dealt with 'gross' leader effects. Jenssen and Aalberg (2006) notice that in some countries, and particularly in the US, the question is not whether leaders have an impact but how this impact occurs. For some, the assumption that leaders' personalities must have an impact is easy to understand in presidential or semi-presidential democracies, where voters select individuals with considerable executive powers; but there is more skepticism as to whether there should be any effect at all in parliamentary regimes (Bartle and Crewe, 2002; Brettschneider and Gabriel, 2002). In spite of this, the interest in leader effects has increased in the recent decades, also for parliamentary democracies. Scholars have underlined the importance of the party leader in parliamentary systems as diverse as the UK (Stewart and Clarke, 1992; Clarke, 2000; Clarke et al., 2004; Evans and Andersen, 2005; Davies and Mian, 2010), Norway (Jenssen and Aalberg, 2006), Portugal (Lobo, 2006), Spain (Rico, 2009, 2011), Australia and New Zealand (Bean and Mughan, 1989; Bean, 1993). Others, however, have found significant leader effects in both the UK and Germany and somewhat more erratic results in Denmark, but not in Sweden, Norway or the Netherlands (Curtice and Holmberg, 2005). Leader and party evaluations are likely to be highly correlated, even though the direction of causality has never been really clarified. The most common assumption is that causality works from parties to leaders, although evidence that leaders help to build a party's reputation has been shown as well (Davies and Mian, 2010). Be that as it may, it is clear that leaders may serve as a signaling tool for parties. There are many examples of this. Radicalism, for example, may be nuanced by a moderate leader's image. As mentioned, leaders can also help parties to give an image of efficacy, sincerity, consistency or responsibility. Holding other factors constant, we should thus expect loyalty to be significantly related to positive eval-

uations of party leaders.

4.3.3. *New switching equilibria*

Not all peaks of switching are cyclical. In the countries analyzed in this chapter, permanent increases in volatility are particularly evident after the 1990s. Examples of new switching equilibria are easily identifiable in the data at different times. Sweden, for example, had been subject to a steady increase of vote-switching since the 1960s. It was, however, in 1994 that a clearly new equilibrium was reached. Not only did the Swedish general election of 1994 see the return to power of the Social Democratic Party after losing office in 1991, but also it brought about several changes in the party system. The Green Party, which had emerged in 1988 and failed to get a seat in the 1991 election, returned to the parliament and has remained a member ever since. The populist party New Democracy, by contrast, fell out in 1994 as fast as it had first obtained seats in the previous election. The Swedish party system has, nevertheless, changed very little since that election. The same seven parties that succeeded in getting representation in the 1998 election monopolized the party system for at least 12 years. Moreover, the only extra party that has emerged so far – in 2010, at an election that could not be included in the sample – was the ‘Sweden Democrats’, a populist party just like the extinct New Democracy and, therefore, not at all a stranger in the Swedish political scene. It therefore looks like the new equilibrium went hand in hand with a reconfiguration of the party system.

The other five cases resemble Sweden to some extent. In Norway, too, the 1989 election brought about the reconfiguration of a party system where, since the 1920s, the Labor Party and the Conservative Party had always been the two major poles of political competition. After 1989, changes occurred on both the left and the right. On the right, the Conservative Party was surpassed by the Progress Party, which until then had never even reached 3% of seats in the parliament. On the left, the Socialist Left Party (SLP) almost doubled its votes to levels that had only

been seen before in 1973, when the party was created as a coalition of several left wing parties and members of the Labor Party opposing the pro-European Communities attitude of the latter. The SLP has never so far polled under 5% again.

The case of the Netherlands does not really differ, as was already explained in Chapter 3. The Dutch 1994 election came together with an extraordinary increase in party-system fragmentation with consequences that lasted for several elections. For the first time since 1918, the Christian Democrats were not pivotal in forming a government, and were in fact excluded from the new coalition that took office after that election. The two parties in the coalition government experienced a landslide defeat, with the Labor party losing 25% of its votes, whereas the Christian Democratic Appeal party lost 37% of their previous support. The 1994 election brought about changes in the number of parties too, with the emergence of the Socialist Party and the growth of most small parties. The party system did, however, not cease to change, especially on the right with the emergence of immigration as an important issue. In 2002, volatility would increase even more with the fast emergence and subsequent disappearance two elections afterwards of the anti-immigration populist Pim Fortuyn List party – and the even shorter-lived Livable Netherlands. All these changes led to a more fragmented party system.

In Denmark, 1998 also brought changes in the party system, with the emergence of the right-wing populists. The Danish People's Party got more than 7% of the seats in the Danish Parliament and, by the next election, had already become the third largest party in Denmark, a position that they still hold to this date. To a smaller extent, changes on the left side also took place in 1994 with the entrance to the parliament of the radical left-wing party Green-Red Alliance.

The German case is perhaps the only one in which the most important changes in volatility and in the party system were not endogenous to electoral change. The emergence of the Greens in the 1980s had taken place in a very steady way. Less so would be the appearance of the Party of Democratic Socialism (PDS) in the 1990s, supported by many

Eastern voters after reunification. Switching in Germany starts rising immediately after that election. Partly, this must be due to the entrance of new Eastern voters with very little experience with the party and election system. But the changes seem also related to the adaptation of many Western voters to the presence of a new political actor, and even more when a split from the Social Democratic Party joined the PDS to create The Left party in 2007.

Changes like these seem even more difficult to take place under a majoritarian system like that in the UK. Even so, some similarities arise with this case as well. A peak of volatility that persisted over time took place with the general election of February 1974. Taking only Great Britain into account³, this election signified the stable presence of two small parties represented in part of the British territory. The Scottish National Party rose from 1 to 7 seats, doubling its vote share in Scotland, while the Welsh Plaid Cymru obtained for the first time representation in a general election. The rise in volatility may have had very limited consequences, especially in the rest of Britain, due to the constraints imposed by the first-past-the-post system. Indeed, even if switching certainly increased after the first election held in 1974 (the election had to be repeated due to a hung parliament), such increase is not comparable to what can be observed in other countries under similar circumstances. Sustained peaks of volatility are, therefore, rare in the UK, where cyclical switching tends to be the norm. It will not be until after the victory of Tony Blair's Labour Party in 1997 that we see again a sustained increase, this time due to the steady rise of the Liberal Democrats. In this latter case, it is difficult to know whether the increased fragmentation of the party system is only temporary, although, according to the surveys that are available for the whole period, it has come hand in hand with the largest proportion of switching voters in at least the last 70 years of British history.

In my view, all these cases of changing equilibrium have two basic

³Because both the data on net and gross volatility used in this thesis exclude Northern Ireland.

common characteristics. The first one is the evident increase in the fragmentation of the party system, with new parties coming out and mainstream parties shrinking in their support. The second common characteristic is utterly related: most of the parties that emerge during the period represent new cross-cutting issues that, at least when they first came up, were not properly addressed by the existing alternatives. The reason why the proportion of switching voters has risen in all of the six countries might well be related to the weakening of social cleavages as vote predictors that, as Franklin (2009) demonstrates, has taken place in virtually all Western democracies during the last few decades. Ideological locations based on left-right values and concerns have been shown to be the 'primary force giving structure to contemporary political life in Western countries' after the decline of cleavages (Franklin, 2009, p. 432). But, even if based on ideological stances, more intense competition is more likely in a context where voters are less constrained by their social background. The last decades are, in fact, an example of this, with new cross-cutting issues destabilizing competition for some years and becoming, after some time, aligned in ideological terms (Franklin, 2009, p.433). For example, green politics is based on issues that were cross-cutting at first – even if they were then absorbed, in many cases, by parties of the left –, just as the issue of immigration currently is cross-cutting in many European countries and contributes to the vote not only of new far-right populist parties (Pardos-Prado, 2010). In similar terms, European Union-related issues have an impact in British politics that goes beyond support for Euroskeptic parties and have been revealed as reasons why many British voters switched from Labour to the Conservatives between 1997 and 2001 (Evans, 1999b, 2001). As pointed out by the advocates of issue-voting in its different manifestations, electoral instability is expected to increase when competition is based on issues that are not completely aligned in a one-dimensional space (Bellucci, 2006; Budge and Farlie, 1983; Green, 2007; Key, 1959; Repass, 1971; Riker, 1993; Petrocik, 1996; Stokes, 1963). Thus, even if most of them end up absorbed by the structuring power of ideology, parties will recurrently

try to bring up new issues in the search for additional voters (Mair et al., 2004, p.6).

It looks like volatility has reinforced itself during recent decades in Western Europe. Parties of both the new left and of the new right have emerged in almost all the cases studied here. With them, parties systems have changed and voters have arguably had to adapt themselves to the new situation. The rise of certain issues is likely to have led many voters to support new parties, with young adults probably playing an important role in this change.

As shown in Chapter 3, younger voters are more likely to switch their vote. Van der Eijk and Franklin (2009) argue that, when new parties first appear on the political scene, their support tends to overwhelmingly come from young voters. This is not strange, as the attachments of these voters to existing parties are weaker than for voters who have already experienced a certain number of elections. Indeed, younger voters seem to have provided the main support for green parties when these were born (Franklin and Rudig, 1992), and they also are more likely than their older counterparts to support new right parties when compared with their mainstream competitors (Henjak, 2009). Something similar has also been reported with regard to the supporters of Ross Perot in 1992 in the United States (Miller and Shanks, 1996). As new parties emerge and win election, there is also a change in the structural conditions under which switching occurs. More fragmentation implies, on the one hand, that mainstream parties will have less electoral strength. On the other hand, it also implies a higher number of alternatives that most voters will have to consider when deciding how to vote in the next election. Changes in the party system may, therefore, provoke a relocation of voters' preferences that may, in fact, take some elections to reach its full potential as increasing numbers of voters respond to the new scenario. At the end, we may hypothesize that high levels of volatility will engender a new switching equilibrium when coming together with changes in the party system. This hypothesis is consistent with Tavits' (2008a) arguments, who sees party system change as triggering volatility rather

than the other way around. Parties will, therefore, cause switching with their own actions, which are partially induced by the voters themselves.

4.3.4. Hypotheses

The reasoning developed so far gives rise to several hypotheses. I will first develop those hypotheses that are related to structural changes in switching. Some of them manifest themselves through their impact on variables that will also be measured at the individual level, such as changing ideological distances between voters and parties, or the appeal of issues or social cleavages etc. Therefore, both in the relation of hypotheses and in the subsequent analyses, they will be introduced before the rest of the factors.

Individual-level structural factors:

H1. Voters will be more likely to switch from parties that are ideologically distant from their current position. Similarly, voters will be more likely to switch the closer they are to another alternative party (H1b).

H2. Voters will be likely to switch from parties that they are less attracted to in terms of their social background. Similarly, switching will be more likely when the closest alternative party is more attractive than the chosen party in terms of social background (H2b)

Individual-level short-term factors:

H3. Voters will tend to defect from parties that they are less attracted to in terms of issues. Switching will be even more likely when the closest alternative is more attractive than the chosen party in terms of issues (H3b)

H4. Voters will defect from parties whose leaders receive bad evaluations. Switching will be even more likely when the leader of the closest alternative receives a better evaluation (H4b).

Party-level characteristics:

H5. Parties in the government will be less likely to be defected from (H5a), but defection will increase with the number of years in office (H5b). Similarly, switching will be more likely for voters whose closest alternative party is in office (H5c), but less so with the number of years the latter has been in office (H5d).

H6. Switching from governing parties will be higher when economic conditions are worse.

H7. Larger parties are less likely to be defected from. The larger the closest alternative, the more likely it will be for a voter to switch (H7b).

Aggregate structural factors:

H8. Electoral fragmentation will increase vote-switching.

H9. Past changes in electoral fragmentation will have an impact on the current levels of switching.

H10. The emergence of new parties is related to higher switching. However, attraction to new parties is dependent on the voter's age (H10b).

4.4. Data

In order to test these hypotheses, I will again use the dataset employed in Chapter 2 consisting of national election surveys for a long time period in six different countries. Not all the surveys employed earlier may be used for the purpose of this chapter, though. The reason is that some of the independent variables necessary to test the hypothesis are not available in many of the studies. This is especially the case with ideology, measured in left-right terms, which is not available in certain surveys where other measures of closeness to parties such as identifica-

tion or sympathy are, however, present. Those cases, as well as cases where individuals are only asked about their self-assessed ideological location, hence giving no information on parties' perceived ideological position, were excluded from the analysis. Similarly, elections where previous voting behavior was not asked, as well as others where leader evaluation was missing, were dropped from the analysis. A total of 38 elections were included in the final analyses, and they are shown in Table 4.1.

Table 4.1: Countries and elections contained in the dataset for Chapter 4

Country	Election years
Denmark	1994 1998 2001 2005 2007
Great Britain	1983 1987 1992 1997 2001 2005 2010
Germany	1976 1983 1987 1990 2005
Netherlands	1986 1989 1994 1998 2002
Norway	1981 1985 1989 1993 1997 2001 2005
Sweden	1979 1982 1985 1988 1991 1994 1998 2002 2006

4.5. Methodological issues

Some of the hypotheses that were developed in earlier sections relate to the degree of voters' attraction to different parties on the basis of elements such as their social background or their position on different issues. These relational variables are not directly measured by any survey and must thus be constructed. Their conceptualization resembles what van der Eijk and Franklin (1996) call affinities to parties. Imagine, for example, that we want to model the relationship between a Catholic party and a Catholic voter. Usually, Catholic voters should be paired with Catholic parties in order to see to what extent the matching of the characteristics of voters and parties in this regard predicts the vote. The problem with this approach is the assumption that Catholic voters are

equally distant from all parties that do not declare themselves 'Catholic'. This may indeed be the case, but as van der Eijk and Franklin (1996) argue, in many cases attraction to different kinds of voters, even with regard to religious denomination, does not automatically derive from a party's label. By contrast, they propose a method that, instead of assuming the level of affinity between particular voters and parties, provides an inductive measure of the latter. The method consists in a set of regression analyses where, for each of the alternatives, the individual-specific characteristics of interest are regressed on party support (see van der Brug et al., 2007). Predictions are then computed and used as independent variables.⁴ This procedure has been used on many occasions in applied research (eg. van der Brug et al., 2008; van der Eijk et al., 2006; van der Eijk and Franklin, 2009) and has also been advocated by Iversen (1991) and Snijders and Bosker (1999). In practice, it simply generates a linear transformation of the variables of interest and, therefore, does not do any violence to the models. Affinities can be interpreted as the degree to which a particular voter is expected to be attracted to each of the existing parties on the basis of her individual characteristics. Here, they will be computed using vote choice as dependent variable, which is operationalized as 1 if a party was voted for and 0 if it was not. For this purpose, the dataset was first stacked in the same way explained in previous chapters. Then, two different affinity measures were computed. In order to create a measure of affinity to parties based on the individuals' social background, the following variables were introduced in the models: gender, education level, age, social class, religious denomination⁵, church attendance⁶, and urbanization⁷. Issue affinity was in turn created from several batteries of questions included in the surveys where individuals were asked about their opinion on different political issues. The procedure to

⁴In practice, predictions are subtracted from their mean for each of the parties so that party-specific characteristics do not contaminate the results

⁵Not available for Sweden.

⁶Not available for Denmark until 2001.

⁷Not available for Great Britain.

calculate affinities was then repeated for each of the surveys and the corresponding predictions were saved. After this, the corresponding values of the parties of interest were kept, and the dataset was turned back from stacked into wide format.⁸ It is worth mentioning that, apart from being necessary in order to create relational measures between individuals and the parties of interest, affinities enable us to overcome differences in the variables measuring the same concept in different surveys.

Before continuing, it is worth making some preliminary clarifications. As mentioned, Chapter 3 showed that, even in a multi-party system like the Netherlands, including preferences for the chosen party and the first other party with the highest utility is enough to explain vote loyalty (and thus switching), as utilities for other parties do not significantly affect the probability to repeat one's choice. This suggests that most voters do not have more than two possible alternatives in mind when deciding whether to switch or not. Thus, when hypotheses were set out in earlier sections, many of them referred to those two parties as well (ie. the previously chosen party and the main alternative). In order to identify the 'main alternative', I will use declared ideological distance between the voter and each of the parties. Following this, the main alternative will be the party other than the one previously chosen that comes closest to the voter in left-right terms. It is worth noting that I will not include information on the party that the voter did actually switch to, as to do so would involve adding information about the dependent variable as an explanatory factor, boosting the fit of the models in an artificial way.

A second clarification concerns the way in which variables for the

⁸Missing values of all the individual-level variables in the analyses, including the variables that affinities were created from, were imputed through a simple multivariate imputation method introducing a random residual error in the imputed values (using the 'ice' command in Stata 11). In addition to the variables included in the models, additional variables were used for the imputation. These variables varied depending on their availability in the survey, but, in general, they were province of residence, income, unionization, civil status, political efficacy, political affiliation, political discussion, party identification, sympathy scores, choice, past choice, work status, public sector worker, political interest, and so on.

main alternative were introduced. Hypotheses were developed in relative terms, compared to the chosen party. Thus, voters are expected to switch when, for example, evaluations are higher for the leader of the main alternative than for the leader of the previous choice. As a consequence, leader evaluation and affinity measures that refer to the main alternative will be introduced into the models in relative terms too (ie. differencing between the values of the main alternative and the values of the previous choice). Only ideological distance from the main alternative will remain in its original scale, as the hypothesis concerning this was not relational.

4.6. Findings

In order to test the hypotheses, I will proceed as follows. Variables that were identified as being related to structural factors will be introduced first. Aggregate variables accounting for the emergence of new parties and previous changes in the party system will then be added. The reason for doing so is that some of these variables are likely to affect switching in an indirect way, affecting the preferences of voters on the basis of certain short-term factors. Thus, the latter will be added afterwards. Finally, economic factors that condition the effect of governing will be included in the last model. Once that this has been done, I will then employ the predictions yielded by some of these models in order to test to what extent aggregate levels of switching can be successfully approximated by them.

Results are presented in Table 4.2. Models were run using hierarchical logistic regression with random effects at the level of the election.⁹ The dependent variable is binary and takes value 1 if an individual voted for different parties in the most recent two elections, and 0 otherwise. Voters that did not vote at one of the elections, either because they were not eligible or because they did not turn out, are excluded from the anal-

⁹Dummy variables to account for possible country effects were also introduced in the models, although none of them came up statistically significant.

ysis.

*Table 4.2: Models of gross volatility (hierarchical logistic regressions).
Dependent variable: having switched (1) or not (0) in the most recent election*

	(Model 1)	(Model 2)	(Model 3)	(Model 4)
<i>Characteristics of previous choice (t-1 party):</i>				
Socio-demographic affinity	-2.472*** (0.174)	-2.161*** (0.175)	-1.654*** (0.193)	-1.682*** (0.193)
Left-right distance	0.306*** (0.007)	0.307*** (0.007)	0.224*** (0.007)	0.225*** (0.007)
Issue affinity			-2.874*** (0.132)	-2.861*** (0.132)
Leader evaluation			-0.188*** (0.007)	-0.190*** (0.007)
Size (% seats)	-0.021*** (0.001)	-0.021*** (0.001)	-0.021*** (0.001)	-0.021*** (0.001)
Party in office			-0.220*** (0.044)	-0.577*** (0.083)
Years in office			0.066*** (0.006)	0.072*** (0.006)
In office * growth				0.033 (0.023)
In office * unemployment				0.044 (0.043)
In office * inflation				0.069*** (0.010)
Split			0.361*** (0.085)	0.379*** (0.086)
Potential coalition party			0.143*** (0.034)	0.138*** (0.034)

(Continued on next page)

Table 4.2 – continued from previous page

Characteristics of closest alternative:

Social affinity (difference with t-1 party)	0.814*** (0.134)	0.941*** (0.135)	0.521*** (0.149)	0.492*** (0.149)
Left-right distance	-0.350*** (0.015)	-0.348*** (0.016)	-0.249*** (0.017)	-0.248*** (0.017)
Issue affinity (difference with t-1 party)			0.577*** (0.097)	0.601*** (0.097)
Leader evaluation (difference with t-1 party)			0.126*** (0.005)	0.125*** (0.005)
Size (% seats)	0.008*** (0.001)	0.008*** (0.001)	0.005*** (0.001)	0.005*** (0.001)
In office			0.068 (0.047)	0.050 (0.047)
Years in office			-0.040*** (0.005)	-0.038*** (0.005)

Election-specific variables:

Average GDP growth				-0.053 (0.042)
Average unemployment rate growth				0.003 (0.087)
Average inflation				-0.047** (0.021)
Δ fragmentation t-1		0.432*** (0.111)	0.279*** (0.089)	0.229** (0.099)
Δ fragmentation t-2		0.516*** (0.139)	0.241** (0.110)	0.170 (0.131)
Fragmentation t-3		0.503** (0.206)	0.213 (0.163)	0.135 (0.178)
New parties		0.291** (0.147)	0.072 (0.125)	

Individual-specific variables:

Age		-0.013*** (0.001)	-0.010*** (0.001)	-0.011*** (0.001)
Age * New parties		-0.003** (0.001)	-0.000 (0.001)	
Female	-0.011 (0.021)	-0.014 (0.021)	-0.021 (0.023)	-0.023 (0.023)
Married/cohabiting	0.009 (0.023)	0.008 (0.023)	0.008 (0.026)	0.008 (0.026)
Education level	0.308*** (0.028)	0.133*** (0.030)	0.202*** (0.033)	0.199*** (0.033)

(Continued on next page)

Table 4.2 – continued from previous page

Constant	-0.879***	-1.298***	0.802**	1.277***
	(0.153)	(0.471)	(0.380)	(0.477)
Country dummies	YES	YES	YES	YES
Individuals	56,575	56,575	56,575	56,575
Elections	37	37	37	37
AIC	56196.78	55813.16	47989.63	47942.45
BIC	56339.87	56009.91	48275.81	48264.41
Pseudo-R ²	0.10	0.11	0.23	0.24

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1; two-tailed.

Model 1 includes only individual level factors that are not likely to predict peaks or tendencies in volatility, namely social affinity to parties, ideological distance and party size. To be sure, variations in these factors might pick up at times some of the trends in volatility. For example, if something exogenous affects ideological distance between voters and their previously supported party, making an extraordinary proportion of voters switch, the effect should be captured without resorting to any kind of short-term variable. In addition to the mentioned variables, the model includes some further controls. One is age, as it was shown in Chapter 3 that older voters have a stronger tendency not to switch. The other controls are three socio-demographic variables that were asked in all the surveys and might potentially affect volatility. Gender was included because women have been suggested as being more likely than men to abandon previous party attachments (Schmitt-Beck et al., 2006, p.595). Civil status was included because it might be related to the stability of social networks and this might have an impact on vote stability. Lastly, the level of education was included because more sophisticated and politically engaged citizens may be expected to present different levels of vote stability. In Chapter 3, political interest was the only socio-demographic control besides repeated voting that showed statistical significance after controlling for all the other factors. This variable is not available for the

38 elections, but I expect the level of education to capture part of this effect.

As per H1, current ideological distance from the party previously supported should lead to a significantly higher probability to switch. Similarly, switching should be more likely the closer voters are to a party other than the previously chosen one (H1b). It was also argued that social affinity to parties should have a significant effect. Thus, switching should be less likely the stronger the social affinity with the previous party (H2), but it should be more likely when affinity for the closest alternative is higher than for the party voted for at t-1 (H2b). It must be noted that when affinities for the closest alternative were introduced in the model, they were subtracted from affinities to the previously chosen party. This is consistent with the way in which hypotheses were previously presented, and enables us to interpret the coefficient in relative terms using the party voted for as a reference. Hypotheses H1, H1b, H2 and H2b find support in the data, the direction and significance of the coefficients in Model 1 being as expected. With regard to the effect of party size, bigger parties are more successful than smaller parties in retaining their former voters (H7). Also as expected (H7b), this effect is partially counteracted by the size of the closest alternative, as the bigger the latter the higher are the chances for voters to switch.

Model 2 introduces two new elements: increases and past levels of party-system fragmentation and the emergence of new parties. Fragmentation is measured using the effective number of parliamentary parties according to Laakso and Taagepera's (1979) formula. I expect switching to be impacted by fragmentation in two different ways. First, the probability to find alternative parties that one feels attracted to should be higher when the set of feasible alternatives is larger (H8). Besides, it was hypothesized that past variations in party-system fragmentation should have an impact on current levels of switching (H9). Changes in the party system imply changes in the number of parties and in the strength of the different alternatives. Voters have to face those changes and adapt their preferences accordingly, which may actually take a few

elections for some of them. Model 2 contains increases in fragmentation at two time points (the previous election, or t-1, and the former one, or t-2). I did not include information on still earlier elections because they were barely significant (see results in the Appendix), which indicates that it basically takes two elections to reach a new equilibrium. The level of fragmentation at t-3 is controlled for in order to check whether it is previous levels and/or increases in fragmentation that affect volatility. In model 2, all variables concerning fragmentation are significant and go in the expected direction, supporting both H8 and H9.

The model also checks for current emergence of new parties. In this regard, volatility is expected to be higher when new parties emerge (H10), but this is expected to affect younger adults to a larger extent (H10b), which is why an interaction between new parties (measured as 1 if at least one new party was elected, and 0 otherwise) and age was introduced. As can be seen, the interaction is significant and goes in the expected direction, the effect of age on volatility being stronger in those elections where new parties are elected. This effect is not small, the presence of new parties increasing the probability to switch by .05 for a 20-year-old voter, but it is statistically indistinguishable from zero for voters over 40.¹⁰

Model 3 introduces a whole set of variables which were theorized to work in the short-term. Before commenting on the effect of these variables, it is worth mentioning that, when short-term factors are added into the model, the effect of new parties and its interaction with age ceases to be significant. This was highly expected, though. The emergence of new parties does not take place in the abstract. New parties come to fill in a gap in representation that is not – or not any longer – filled by the existing parties. One possibility is that the gap is ideological, which may happen if competition compels parties to move toward a somewhat different ideological position, producing disappointment among some of their former voters. However, in the light of model 2, ideological moves

¹⁰These probabilities were calculated holding the values of all the other variables at their means.

do not seem to completely account for the effect of new parties, which is particularly salient among younger voters. New parties may also emerge because they appeal to voters on the basis of other issues. In this case, the reason why elections with emerging parties provoke higher volatility may precisely be explained by the defection of voters concerned with the particular issues that new parties bring on the agenda. Model 3 seems to support the latter explanation, as the explanatory effect of new parties in interaction with age fades away when short-term factors are added.

Another interesting finding that is worth mentioning is the fact that past increases in party-system fragmentation keep having a significant effect on switching when controlling for short-term factors, even if the strength of this effect is certainly reduced. Indeed, one possibility is that Model 3 fails to control for some particular short-term factors whose effect is captured by past changes in the party system. Another possibility, though, is that it takes a while to reach a new equilibrium. Changes in either the number or the relative strength of different parties may provoke a modification in voters' preferences. It was shown in the previous chapter that inertia plays down the role of preferences for voters with a longer political experience. This means that many voters will not automatically change their vote when their preferences do so, which is why we may expect the effect of past changes to last for a number of elections.

Let me now comment on the new variables in Model 3. On the one hand, we have variables at the individual level representing how much voters are attracted by different parties on the basis of several short-term factors. The first of these variables measures the impact of issues, measured by a battery of questions included in each of the surveys and transformed into affinities with the procedure that was already explained. As expected (H3), when attraction on the basis of different issues is high for the party voted for in the last election, voters are less likely to defect. Again, issue affinities were also measured with regard to the closest alternative party. Not surprisingly, when issue affinities are higher for the latter than for party supported at the previous election, voters show a significantly higher tendency to switch (H3b). Coefficients for leader

evaluation work in a similar way. As explained, party leaders send signals of different kinds that may help parties build up their discourse and reputation. I, therefore, expect this variable to capture the effect of other issues, either valence or positional, which are not captured by the affinity measures. Consistently with H4, stronger sympathy for the leader of the previously supported party decreases the likelihood of switching. However, higher sympathy for the leader of the closest alternative (relative to the leader of the previous choice) increases the chances that the individual will eventually change her vote, as hypothesized in H4b.

With regard to party-level variables, several of these were introduced in Model 3. The first one is being in office, which is represented by two dummy variables. The first variable takes value 1 if the previously chosen party is in office at the moment of the present election and 0 otherwise. The second one, by contrast, takes value 1 when the main alternative is in office. According to H5a, defection is expected to be lower for parties in office when time in office is controlled for. Also, voters that are ideologically close to other parties in office should be more likely to switch, as it is easier for them to express discontent without necessarily putting at risk the formation of an ideologically close government (H5c). Model 3 supports hypothesis H5a. However, whether the main alternative is in office or not does not seem to significantly affect the probability to switch. As time in office is controlled for in the model, the effect of being in office is the relative advantage that government parties can be expected to have during their first years in office. According to the model, being in office as such prevents defection, but does not generate switching when a voter's main alternative is in office. The number of years that a party has been in the government does, nevertheless, have a significant effect in both cases. More years in office increase the likelihood for a party to be defected from. Moreover, years in office of the main alternative provoke the opposite effect in voters, decreasing their probability to switch. Both of these findings were expected according to H5b and H5d respectively.

It must be borne in mind that model 3 controls for the plausibility of

the previous choice being a coalition party. Switching should be easier when the party voted for may enter the government with other parties, because voters may just switch to one of their previous party's colleagues and minimize the risks of defection in government formation. Instead of creating a measure that indicates the likelihood of coalitions at the country or election level, as common in much research, I opted for introducing this variable at the level of the party. This is so because it cannot be assumed that parties that are, a priori, excluded from coalition governments will benefit from the fact that coalitions are likely in a country. On the basis of the history of coalition formations in a given country, but also attending to what reports on the particular elections and what parties and the media said, I created a dummy variable where parties take the value 1 if they may be reasonably expected to enter a coalition with other parties if results are favorable, and 0 otherwise. Codification of this variable is shown in Appendix 2. As can be seen, the effect is significant and goes in the expected direction. Lastly, the model includes an additional dummy variable which indicates whether the party voted for split up between the previous and the most recent election. The expectation here was that voters of parties that split will be more likely than the rest to defect, and results provide strong support, the coefficient being positive and highly significant.

Model 4 adds several economic indicators to the analysis as interactions with the position of the previous party in office. Thus, voters of parties in office were expected to switch to a higher extent when unemployment or prices rise, whereas economic growth should have the opposite effect (H6). When introduced in the model, only the average level of inflation in the years between the two last elections turned out to significantly modify the effect of being in office. What this means is that defection from governing parties rises with inflation. Judging from the main term of inflation, which is negative and significant, the opposite seems to be the case for opposition parties, in which case more inflation would prevent their voters from switching. Nevertheless, it must be taken into account that growth, unemployment and inflation tend to

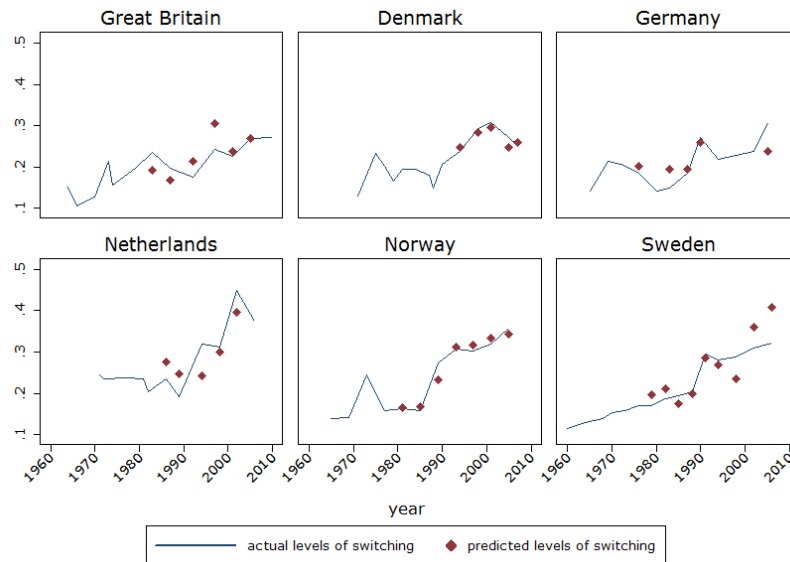
be highly correlated, which makes it difficult to find significant effects when the three variables are present. It is also worth noting that, regardless of the measure of fit that we look at, economic factors do not add much to the explanation. This was, however, very much to be expected in light of what the literature on economic voting has said with regard to the rather small effects of economic indicators on voting behavior (see van der Brug et al., 2007).

Let us now turn to analyzing how these models perform in predicting gross volatility over time. I expect short-term factors to be essential for predicting the variation of switching across elections. The introduction of these factors should, therefore, produce much better predictions of gross volatility than models including only factors that tend to operate over a longer term. As explained, when only individual-specific variables are introduced, it is very difficult to separate structural from non-structural factors. After all, the explanatory power of the former may also vary as a byproduct of social and institutional changes, alongside the actions of political actors. Thus, for example, when the ideological space of competition changes as a consequence of an increasing number of competing parties, it should be possible to capture part of this effect by only introducing the left-right distance between voters and parties into the model. This, however, is unlikely to capture the effect of shocks that are related to political issues that may come up at particular elections and push voters toward switching.

I computed the total proportion of switchers predicted by a model that does not include variables associated with cyclical switching (Model 1 in Table 4.2) and the proportion predicted by the final model (Model 4 in Table 4.2). At the election level, the correlation between the actual proportion of switching voters and the values predicted by the first model is 0.14, a rather bad fit. However, our capacity to predict gross volatility hugely improves when short-term factors are accounted for. The actual proportion of switchers and the predicted values that derive from the final model (plotted in Figure 4.2) present a correlation of .84 at the election level. In other words, this model explains 71% of the variance

of gross switching, which indeed confirms the important role that short-term factors play in explaining vote-switching and its dynamics across elections.

Figure 4.2: Actual and predicted proportion of switching (final model)



Moreover, findings also confirm the relevance of these factors in order to explain net volatility. In the sample used for this chapter, the correlation between gross switching and net volatility is actually .74. When the predicted values of gross switching are employed instead of the actual values, the correlation is very similar: .73. Thus, by using only the predicted levels of gross switching from the final model it is possible to account for 53% of the variance in net volatility.

4.7. Conclusion

Comparative research on gross volatility is extremely scarce. In general terms, the study of vote-switching has been consigned to election or country-specific research where the only tools to explain change are individual-specific factors and anecdotal evidence. This contrasts with the study of net volatility, which, despite being eminently comparative, has largely overlooked individual-specific dynamics or simply taken them for granted when making assumptions about switching that are expected to translate immediately into net change. Even if the relationship between gross and net switching is strong, as was shown in Chapter 2, inferring individual patterns from changes in election results is not without risks, given the presence of additional components of volatility.

This chapter has provided a theory of gross volatility that puts together mechanisms linking individuals and parties, and places them in specific party-system settings. It has shown that the dynamics of gross switching can be approximated by taking all these three aspects into account. Switching was expected to vary across countries and elections in different ways. First, there is a natural level of gross volatility that can be expected at any particular election in a given country. This 'natural level' was argued to be provoked by factors that are structural, in the sense that they tend to be rather stable over time. In the real world, however, it is difficult to separate structural factors from others that cause cyclical peaks in switching, as the former may also be impacted by social and political changes. Some of these factors, such as socio-demographic affinity to parties and ideological distances, are successfully used in the literature on vote choice. However, their explanatory power is certainly less strong when it comes to explaining the peaks. In order to do so, it is fundamental to account for those factors that are likely to produce changes in the short-term. Switching is likely to be jointly produced by disappointments with the previously voted party and the appeal of other alternatives. Disappointment may occur as a normal consequence of governing, an effect that is moderated by political and economic out-

comes. Moreover, parties that have chances to belong in coalition governments are more likely to be defected from, arguably because voters may express disappointment by switching to likely coalition partners. In addition, switching tends to increase from parties that undergo internal splits. Other factors likely to increase cyclical switching and that have a significant effect are related to the appeal of parties to voters in the short term. Thus, issue-based affinities to parties and leader evaluations are other key elements explaining peaks of volatility. Voters defect from parties on the basis of short-term factors as much as they are prone to switch when another party that is ideologically close appeals to them on such grounds. Thus, political change comes about at times as a series of small shocks that may also modify the terms of competition. Switching voters, and especially the youngest ones, are essential in order to understand the emergence of new parties and important changes in the electoral strength of existing parties. When volatility comes about in consequence, a new equilibrium may then arise that modifies the proportion of normal switching in a given country.

The dynamic explanation of gross volatility that is provided in this chapter contributes to filling an important gap in the literature, not only because comparative work on switching is virtually nonexistent but because it provides an explanation of why the proportion of switching voters changes over time. The models here presented perform reasonably well in predicting the evident increase in gross (but also net) volatility in the six countries under analysis, just like many other Western European democracies, have experienced in recent decades. The fact that the introduction of these factors is enough to explain this, without even having to introduce a variable accounting for the year, reflects that, basically, the increase that the literature has highlighted is strongly related to the action of issues and a series of other short-term factors that have both modified competition by bringing about higher levels of fragmentation in most countries, and provoked higher levels of volatility. Contrary to what many observers and political scientists have suggested (see, for example, Dalton et al., 1984; Dalton, 2000; Mair, 2005, 2008), it does

not seem necessary to include indicators of dealignment to account for this. Indeed, some might claim that the relevance of short-term factors is clearly a sign of more dealignment, and this research would be a confirmation of their claim. However, patterns of instability have been shown not to work at random, and so the fact that issues and other short-term factors are so helpful in order to understand the trends may simply reflect changes in the terms of competition. Voters do still move to parties that are appealing to them and, after all, their probability to switch tends to greatly diminish as they acquire political experience.

4.8. Appendix*Table 4.3: Effect of fragmentation changes on switching*

	(1)
Δ fragmentation t-1	0.236*** (0.085)
Δ fragmentation t-2	0.369*** (0.097)
Δ fragmentation t-3	0.184* (0.102)
Fragmentation t-4	0.237** (0.114)
Constant	-1.945*** (0.259)
Country dummies	YES
Individuals	93,662
Elections	63

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; two-tailed.

CHAPTER 5. CONCLUSIONS

This thesis has studied the mechanisms of change from two different perspectives. It has first focused on net volatility in order to explain how individual-level mechanisms are translated into changes at the level of election results. The second part has then looked into vote instability, defined in terms of individuals switching their vote, in order to provide a comprehensive explanation that takes account of how instability evolves at the individual level together with the mechanisms that trigger vote-switching across elections. In doing so, the thesis has contributed to the different debates and limitations of previous studies providing useful findings that must lay the fundamentals of a bigger research agenda on electoral change. In the following sections, I relate the main contributions of this thesis to the current state of the art and discuss different avenues that remain open for further research on the topic.

5.1. Findings and contribution to the literature

5.1.1. Contribution to aggregate-level research

One of the main contributions of this thesis to research on net volatility is that it provides an empirical insight concerning the different sources of volatility at the individual level and their relative impact on aggregate results. Net volatility constitutes a very blurry indicator of change and does not allow for a precise investigation of the way in which change actually takes place. Comparative research on the components of net

volatility was virtually non-existent in the literature beyond the scope of studies that had looked into the link between individual behavior and volatility for a few elections. Chapter 1 overcomes this problem by using survey data together with demographic statistics and electoral records to draw an empirical picture of volatility at both the party and the election level.

As argued, there are three possible sources of net volatility: switching voters, differential turnout and generational replacement. For both theoretical and mathematical reasons, vote-switching was expected to be the most important of the components of volatility. Chapter 1 employs data for six countries and dozens of elections during a time span of more than 40 years, and demonstrates this to be the case. Switching voters are shown to be the main engine of electoral change in the vast majority of elections analyzed. The net effect of switching accounts for most of the losses and gains of political parties in elections as well as for the aggregate levels of net volatility. The contribution of the other two components must, however, not be understated, even if switching tends to be the protagonist in the short run.

Apart from demonstrating that the net effect of switching accounts for most of the variation in net volatility, chapter 2 also shows that there is a very direct link between the number of switchers and their effect on net results. A larger number of switching voters is significantly associated with higher net volatility. Moreover, when factors that intervene in the translation from gross to net switching are accounted for, it is possible to obtain very accurate predictions of volatility. Thus, by interacting the proportion of switchers with the effective number of parties, it was possible to explain about 70% of the variance in net volatility. Studying the mechanisms that lead voters to switch is, therefore, essential in order to understand electoral and political change between elections. This was the main focus of Chapters 3 and 4.

An additional important contribution to the aggregate-level literature is made in Chapter 4. Studies of net volatility have tended to take for granted the impact of aggregate factors on the behavior of voters, in-

ferring individual patterns of change from changes in election results. As a consequence, assumptions regarding the impact of different factors on vote-switching or differential turnout populate the aggregate-level literature without having ever been tested with data at the individual level. Even though, as shown in Chapters 2 and 4, the correlation between gross volatility –that is the total proportion of switching voters in an election– and net volatility as measured by the Pedersen index is very high, it is not possible to look into the mechanisms of vote-switching by using net volatility as a surrogate. For this, it is necessary to conduct comparative research at the individual level of analysis, and that has indeed been the main aim of this thesis.

Chapter 4 provides a theory of gross volatility and contributes to the literature by putting together elements at the individual level, the party level and the aggregate level. Research at the aggregate level had found important factors such as the ideological space of competition (Bartolini and Mair, 1990) or socio-economic cleavages (Bischoff, 2012) to have no or very little effect on volatility. However, when those factors are measured at the individual level, they turn out to be very important, even if they do not allow us to predict peaks in volatility. Factors that link the demand side of politics (voters) with the supply side (parties) are demonstrated to have the biggest effect when it comes to switching. Ideological, socio-economic and issue affinities, together with other factors such as leader evaluation, play an extremely important role.

The dynamics of gross switching can be approximated by taking three different aspects into account: factors that are likely to change slowly ('structural factors'), factors that work in the short-term, and changes in the terms of political competition (such as changes in the party system). The first set of factors was argued to explain the 'baseline' of gross volatility, that is the proportion of switching voters that can be expected at any particular election within a given country. These are factors such as socio-demographic affinities to parties, ideological distances and other factors that impact on voters' tactical considerations such as a party's electoral strength. These factors are not purely static,

though. They can be changed by the actions of voters and parties and be useful to explain trends in volatility as well. However, most of the peaks in volatility are likely provoked by factors that operate in the short run. Switching, it was argued, is the direct consequence of disappointments with the party previously supported and the appeal of another alternative. Disappointment may occur, for example, as a normal consequence of governing, an effect that may be moderated by political and economic outcomes. Parties that have chances to belong in coalition governments are more likely to be defected from, as voters may switch to other coalition partners without putting at risk the formation of an ideologically close government. In addition, switching tends to increase from parties that undergo internal splits. Other factors that operate in the short run and were shown to play a fundamental role in vote-switching are issue-based affinities with parties and leader evaluations. These factors are extremely useful for understanding the likelihood of voters switching parties and variations in the number of switchers across elections. Volatility is argued to come about as a series of small shocks that may, at times, modify the terms of competition by introducing new parties, by making old parties disappear, or by changing the way in which support for the different parties used to be distributed in a country. When changes of this kind take place, they affect the way in which voters place themselves and the different parties in the ideological space and, therefore, have an important impact on the likelihood of switching. Moreover, as many voters are subject to inertia, past changes were shown to take a couple of elections before a new switching equilibrium is established. This dynamic explanation of gross volatility is innovative and performs reasonably well in predicting switching (but also net volatility) across elections in different countries and over time. Moreover, it also contributes to the literature in other respects to which I now turn.

5.1.2. *Contribution to individual-level research*

Comparative research on volatility from an individual level perspective is very scarce. Scholars have often focused on changes that occur at particular elections and between particular parties, and only sometimes compared elections in different countries. This has prevented this body of research from using variables at the party or the country level when explaining change; an obstacle that, as explained in the previous section, is overcome in this thesis.

But it is not necessary to focus on factors at a level higher than the individual voters to highlight the contributions of this thesis to the literature on vote-switching. Scholars have rarely taken into account the impact of inertia on switching or, when they have done so, that has only been as an incidental finding whose mechanisms always remained unexplained. Here, evidence on the mechanisms that generate vote stability within the individual was shown with data from several Dutch panel surveys and then contrasted with findings from national election surveys in another five countries.

Voters are not equally prone to change. Chapter 3 dealt with the mechanisms through which individuals develop vote loyalty. It focused on the effect of inertia. Inertia affects voters' preferences because repeatedly voting for a party increases the distance between the utility of the chosen party and the rest. Moreover, voters that have supported the same party on different occasions are more likely to repeat their choice again than those with similar preferences that had not voted for the same party more than once. Repeated voting for a party is shown to be essential in order to explain why party loyalty increases with age and why most the switching that we see in elections tends to be generated by younger adults. Thus, one of the main reasons why older voters tend to present a more stable pattern of voting behavior lies in the fact that inertia has impacted on them over the course of several elections.

Dutch surveys were extremely useful, because they provided a non-ipsative measure of party utility that allowed me to test how preferences

for both the chosen party and the other alternatives evolve with political experience. This is a fundamental contribution to previous research, which had only focused on the evolution of party identification, a binary and exclusive measure that did often not enable researchers to see beyond the party that voters are identified with. Moreover, the Dutch case gave me the opportunity to test the hypotheses in contexts of low and high levels of volatility (1986 - 1989; and 1994 - 2003, respectively), and with an exceptional rise in the levels of instability in 1994. The effect of inertia was present in the four scenarios, even if it was somewhat weaker in the 1994 election, where almost one third of the respondents declared themselves to have switched to a party that they had never chosen in the recent past.

If we take into account the effect of generational replacement as such (shown in Chapter 2) together with the fundamental contribution of young voters to vote-switching which is demonstrated in Chapter 3, it is clear that this particular group of voters are the key instigators of change. Young voters are, thus, claimed to be a key factor in order to understand volatility. Van der Eijk and Franklin (2009) demonstrated that most of the support of new parties tends to come from young adults. It is, therefore, not strange that also the appearance of new parties comes together with a higher number of young switchers, as shown in Chapter 4. By helping new parties emerge, these voters are indirectly impacting on the preferences of their older counterparts. As explicated, changes in the effective number of parties may add more incentives for voters of all ages to change their vote and this effect tends to remain for a couple of elections until a new equilibrium is reached. Thus, by generating change young voters get also to modify the levels of stability that we can expect from any other voter at a particular election.

5.1.3. Contribution to the debate on the consequences of rising volatility in Western Europe

This thesis is aimed to give answers to some of the questions that arise in light of the rising levels of volatility that Western European democracies have seen in the last few decades. Already in the introduction, I discussed the possible consequences that this trend might have for the quality of democracy. As argued, many observers and political scientists are concerned that a more unstable political scenario may be a sign of increasing levels of disengagement or dealignment in the voting population (see, for example, Dalton et al., 1984; Dalton, 2000; Mair, 2005, 2008). This research shows that it is not necessary to include indicators of dealignment in order to account for the trends and peaks of switching in a reasonable way. Indeed, some might claim that the role of short-term factors that is shown to be a key element is clearly a sign of increasing dealignment, and from this perspective this research would be a confirmation of their argument. However, patterns of instability have also been shown not to work at random and can be predicted on the basis of a variety of variables that regard voters, parties and the party system. Thus, the fact that issues and other short-term factors are helpful in order to understand the trends may simply reflect changes in the terms of competition rather than a worrying picture of general disengagement. After all, voters keep showing a more stable vote pattern as they acquire political experience, older voters being much less likely to switch parties. Thus, it looks like the rising levels of volatility in Western European countries, or at least in the six countries that are analyzed here, are to be primarily explained by changes in the terms of competition, including also the number of competitors, rather than anything else.

5.2. Further research

It was mentioned in the introduction that this thesis aims to establish the basis of a further research agenda in the study of political change.

There are, in my opinion, different ways in which further research can be developed, some of which are enumerated in this last section.

On the one hand, enlarging the number of cases looks like a critically important path for further research to take. This thesis was conceived with an eye toward giving a more satisfactory answer to the question of why both volatility and voter instability have increased in Western Europe during recent decades. This, indeed, has marked the scope of the research in many ways. For one thing, it has given priority to those countries for which survey data were available for a long period of time. This decision was, indeed, required given that the main puzzle was related to changes that seemed to have occurred in certain countries and during a particular period of time. But, on the other hand, it also led me to put aside other countries that may be equally or even more interesting as cases for study. Enlarging the scope to other advanced democracies would perhaps not enable us to fully understand whether different trends of volatility can be comprehended by different factors due to data limitations, but it would certainly be helpful in order to grasp differences across countries. To be sure, the differences across the six countries that were included here are not large in terms of gross volatility (see Figure 4.1), which contrasts with the picture obtained when net volatility is used as dependent variable (Figure 2.5). As argued in Chapter 2, many of these differences are due to the way in which factors such as party fragmentation intervene in the translation of gross switching into net volatility. But the extent to which other institutional characteristics might also help explain the differences can only be studied with a bigger sample of countries. Additionally, Southern European countries that transitioned to democracy are a very interesting object of study, as they migrated from relatively high levels of volatility during the first elections to more moderate levels after some years. Indeed, to the extent that data can be gathered on this, those countries are a perfect place to test the effects of political experience on the vote.

Countries with extraordinary levels of electoral volatility, such as those in Eastern Europe or Latin America, represent even more interest-

ing cases. The decision not to include them was based upon the fact that comparative research on volatility from an individual level perspective was, and still is, clearly insufficient. In this context, starting with established and more stable democracies seemed the right way to go before embarking on the study of countries and systems with large amounts of instability, which might turn out to be rather more confusing. Now, having laid some fundamentals, it may be the right time to learn from other cases and check to what extent these or other mechanisms are present. Moreover, most of the Eastern European newer democracies differ from the Southern European ones in that, even if all of them represent cases of transition to democracy, volatility has remained at much higher levels in the former group of countries. This is indeed an interesting fact that justifies a deeper study.

But it is not only the cases of study that open the door to further research. Here, many analyses rely on cross-sectional data, and the ones that do not, such as those in Chapter 3, employ panel surveys that only comprise a maximum of two or three waves. Even if that was, in my view, enough for the aim of this study, it certainly does not allow one to develop other research questions that remain unanswered. The problem with longer longitudinal studies is twofold. On the one hand, most of them lack a sufficient number of political questions. On the other, and even more importantly, the presence of young voters in such surveys is certainly limited. For obvious reasons, young voters cease to be so young after a certain number of waves, which indeed is an obstacle if the aim is to study political change. Nevertheless, longer panels are necessary in order to take a deeper look into the patterns of change and, especially, to investigate to what extent different kinds of voters switch back to their former party after some time.

This thesis did obviously not address all the questions, but it did provide a basis for further theorizing in an area that, although promising, continues to be largely unexplored.

SOURCES AND CODIFICATION

The surveys employed in this book come from: the European Voter pool of election studies (Thomassen, 2005b), British Election Studies 1969-1987 (Heath, 1989), British Election Study 1997 (Heath et al., 2000), British Election Study 2002 (Sanders et al., 2002), British Election Study 2005 (Clarke et al., 2006), British Election Study 2010 (Sanders et al., 2010), Danish Election Study 2001 (Andersen et al., 2002), Danish Election Study 2005 (Andersen et al., 2005), Danish Election Study 2007 (TNS Gallup, 2007), Dutch parliamentary election study 1981-1984-1986 (van der Eijk et al., 1997b), Dutch parliamentary election study 1986-1989 (van der Eijk et al., 1997a), Dutch parliamentary election study 1989-1994 (Anker and Oppenhuis., 1997), Dutch parliamentary election study 2002-2003 (Irwin et al., 2005), Dutch Parliamentary Election Study Cumulative Dataset, 1971-2006 (Aarts et al., 2010), German Election Study 1998 (Schmitt and Wessels, 1998), German Election Study 2002 (Wessels and Schmitt, 2002), German Election Study 2005 (Wessels, 2005), Norwegian Election Study 2001 (Valen and Aardal, 2008a), Norwegian Election Study 2005 (Valen and Aardal, 2008b), Swedish Election Study 2002 (Holmberg and Oscarsson, 2004), and Sweden Election Study 2006 (Holmberg and Oscarsson, 2008).

Information on party splits and mergers is based on Bartolini and Mair (2007), Caramani (2000), Mackie and Rose (1991, 1997) and the Political Data Year Books published by European Journal of Political Research.

Pedersen index from Peter Mair's personal file of electoral volatility.

Effective number of parliamentary parties. Source: Comparative Political Data Set I, 1960-2008 (Armingeon et al., 2010)

Unemployment growth, GDP growth and average inflation rate. Source: The World Bank's Development Indicators.

Party size, party in office, years in office: own coding from election reports and Political Data Year Books.

Plausible coalition party. Parties that exclude being part of (or are excluded from) coalition governments (value 0) are: *Great Britain*: All parties until 2010. *Denmark*: Progress Party, Left Socialists. Socialist People's Party until 1993. *Germany*: The Left Party. The Greens until 1994 (included). *Norway*: Labor Party and Socialist Left Party until 1997. *Sweden*: Social Democratic Party, Green Party and Left Party until 1998.

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