> The role of non-voting in shifts in support for Italian political parties 2006-2008

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Abstract
The 2008 Italian Parliamentary Elections showed the highest abstention rate in Italian history (19.5%) up until that moment (a new record was set in 2013). Even though this abstention rate might seem quite low in comparison with some other Western democracies, it has been steadily increasing over time. Furthermore, recent research shows that the intermittent non-vote is increasing as well. The voter’s individual decision on whether or not to vote depends on the circumstances at each election, taking into consideration the type of election, the quality of the candidates, and so forth. By employing an ecological inference method on the Italian aggregate data, this paper assesses what happened in terms of electoral realignment and differential abstention. It also aims to find out which parties are now gaining or losing support from non-voters in the 2008 Parliamentary Italian elections.

Résumé
Lors des élections législatives italiennes de 2008, l’abstention a atteint un niveau record, avec 19,5%. Même si ce chiffre peut paraître assez faible au regard des autres démocraties avancées, l’abstention ne cesse de progresser en Italie, notamment sous le poids des électeurs intermittents dont la décision de participer ou non au scrutin est fonction de multiples facteurs. Cet article est fondé l’application du modèle de Goodman aux résultats du scrutin de 2008. Cette méthode d’inférence écologique des données agrégées permet en l’espèce de mesurer le niveau de l’abstention différentielle, de mettre en évidence les forces qui en ont profité ou qui, au contraire, en ont été les victimes et, enfin, de s’interroger sur la nature du réalignement électoral qui s’est opéré lors du scrutin.
INTRODUCTION

This paper deals with the topic of the non-vote with respect to the impact it has on parties’ electoral success in Italy. In recent years this topic has raised a lot of interest because several researches exposed a particular typology of voters: the “intermittent voters” (Blais, 2000; Legnante and Segatti, 2001; Cautrès and Mayer, 2002; Tuorto and Colloca, 2011). The intermittent voter decides for each separate election whether to vote or not, depending on the electoral campaign, whether the election is parliamentary or local, who the candidates are, and so on (Legnante and Segatti, 2001; Tuorto and Colloca, 2011).

In Italy, the intermittent voters constitute the larger part of the group of floating voters, who make up about 20-30% of the total number of voters (Natale, 2000; Tuorto, 2006). These voters play a key role in the elections, since they are the ones to be persuaded. In fact, about 70% of the Italian electorate is likely to vote at least for the same coalition at every election, if not for the same party. Traditionally, Italian voters tended to be faithful to a party (Natale, 2000), although this tendency was stronger in the past, with 1992 as a turning point when Tangentopoli forced the party system to change (but some preliminary indicators of this trend are already observable in the 1970s) (Tuorto 2006).

What is, therefore, important is to assess what happened in terms of electoral realignment, and especially to discover which traditions these intermittent voters stem from and which parties are now gaining or losing their support.

It is particularly interesting to ask these questions concerning the 2008 Italian Parliamentary elections. These elections were characterized by a deeply changed electoral offer with respect to the previous elections, which should increase and affect the physiological volatility inherent to all elections. The 2008 Parliamentary elections were characterized at the party level by a spectacular dynamic in the left- and right-wing coalitions: the main parties in both coalitions decided to re-found themselves by merging. There is evidence that this transformation was perceived as a shift towards the centre (Curini and Iacus 2008). Furthermore, each coalition dropped one (small) party. Therefore the voters of one of these small parties – no longer included in one of the coalitions with an actual chance to win – had three possibilities: 1) voting for a party with no chance to win, 2) casting a useful vote by switching in favour of one of the coalition parties, 3) abstaining. On the other hand, the new party offer might have attracted previous non-voters and encouraged them to cast a ballot.

The aim of this paper is to investigate the specific role that abstention played in this
particular election, and more specifically if 1) the mobilization of non-voters played a key role in the election outcome; 2) which were the parties suffering major losses to the non-vote (differential abstention); and 3) which parties were able to mobilize the no-vote.

The parties suffering the major losses towards the non-vote were the Partito Democratico (PD) and the group of communist parties. However, the PD counterbalanced these losses with incoming votes from other parties, whilst the losses for the communist parties proved lethal and resulted in them not reaching the electoral threshold to get seats in Parliament (4%). Conversely, the only party that was able to mobilize a fair amount of non-voters was the Popolo della Libertà (PdL).

ABSTENTION: AN OVERVIEW OF ITALY AND MEASUREMENT PROBLEMS.

In Italy, voter abstention has constantly been increasing since 1979 and at the 2008 Parliamentary elections it suffered the highest rate of abstention up until that time: 19.5% (in 2013 it further increased). This was an increase of 3.1 percentage points with respect the previous elections in 2006. Even if the abstention rate might seem quite low compared to France (42.7% in 2012 – second round legislative), Spain (28% in 2011) or the UK (34.9% in 2010), it is quite high for Italy. From the beginning of the Italian Republican era (1946) until 1979, the abstention rate has remained steady at about 6-7%, and we can label this as inevitable abstention. There will always be a proportion of the voting population who cannot vote because, for instance, they cannot get to the ballot box or are abroad. Even in Belgium (where voting is mandatory) we observe a small proportion (under 10%) of abstainers. This non-vote rate is unavoidable, and we can assume that the main reason for not voting is not down to choice. When the abstention rate starts to increase, the actual choice not to vote becomes more and more relevant, and the need arises to better define it.

To get a full picture of abstention is not easy at all, because each method that might be used to examine it has its limits. Surveys, for example (putting aside general problems associated with them like sampling error, memory problems, etc.), very often suffer from an underestimation of abstention (Selb and Munzert, 2011).

A possible means of avoiding this problem is through the use of aggregate data. Of course, there are problems with this approach as well, the most significant of these being ecological fallacy, which involves the incorrect assumption that individual members of a group have the
same characteristics as those of the group taken as a whole. Whilst keeping the limitations of the method in mind, the approach that involves the use of aggregate data does provide the possibility of working not with a sample, but with the entire population and with real electoral records.

Since this paper deals with the problem of abstention as a non-expression of preference for any party, non-voters are defined both as voters who do not vote at all and those who actually do go to the polls, yet cast a vote for the "not vote" choice on the election ballot. Consequently, this paper will focus on a phenomenon that is more properly labelled non-vote rather than abstention, in order to include blank and spoiled ballot papers in the analysis. The non-vote is calculated by subtracting the valid votes from the total voting population, i.e. those voters eligible to vote in each polling station. Thus, the non-votes include blank and spoiled ballot papers because, as mentioned above, the main goal of this paper is to investigate the number of people who decided not to support any party.

In order to have a better understanding of the structure of the non-vote in Italy (also in terms of swings), this paper estimates the flow-of-votes between political parties and the non-vote in the two most recent Italian Parliamentary Elections of 2006 and 2008. The estimates of the flow-of-votes will be obtained by using ecological inference (employing the ecological data of the 2006 and 2008 Italian Parliamentary elections), and specifically with the use of the Goodman Model.

In order to get a better understanding of the remarkable increase of the 2008 non-vote and of the findings illustrated later on in this paper, it is useful to provide a general picture of the 2008 elections.

THE 2008 PARLIAMENTARY ELECTIONS

The narrow majority in the Senate played a role in the collapse of the Prodi government, but it is also true that the Italian electoral law (law n.270 of 21st December 2005) forces parties – regardless of their size – to make pre-electoral alliances in order to increase their chances of victory. Naturally, this increases the chances of a small coalition partner holding an entire coalition hostage. Such a dynamic can cause instability, make it difficult to stably govern a country, or even carry out an electoral agenda.

Therefore, Walter Veltroni, the left-wing candidate, decided to simplify the political
panorama by unifying the left-wing democratic party (Partito Democratico della Sinistra, PDS) with the centre-left party la Margherita, the radical-left party Rosa nel Pugno (RNP) and several smaller left-wing parties into the Democratic Party (Partito Democratico, PD). All these left-wing parties were unified under a single name and logo. Together with the PD Antonio Di Pietro’s party, Italia dei Valori (IdV), formed the centre-left alliance (and thus IdV kept its own party name and logo). The Socialist Party (Partito Socialista, PS) wanted an alliance with the PD using its own symbol, like IdV did, but this was rejected and it competed alone in the elections.

Whereas in 2006 the Italian communist parties were part of the left-wing alliance, in 2008 they were not included in the PD. Subsequently, they founded the Sinistra Arcobaleno, which included the Communist Re-foundation (Partito della Rifondazione Comunista, PRC), the Italian Communists (Partito dei Comunisti Italiani, PDCI) and the Green Party (Verdi). Two other communist parties, which in the 2006 where part of the PRC, competed alone in 2008: Sinistra Critica and the Workers’ Communist Union (Partito Comunista dei Lavoratori, PCL).

Similarly to the dynamics on the left, Berlusconi formed the PdL (Popolo della Libertà), an alliance between Forza Italia (Silvio Berlusconi’s party) and Alleanza Nazionale, and some other smaller parties under a unified symbol. The Lega Nord and the MpA (Movimento per le Autonomie) joined the PdL as allies with their own party name and logo – similar to IdV on the left. Both in 2006 and 2008, the LN and the MpA agreed to not run candidates in the same constituencies. The LN operates in the North and the Centre of Italy, whereas the MpA operates in the South of Italy and on its Islands.

However, not all parties formed pre-electoral alliances. As a direct result of the increasing bipolar situation, the Unione di Centro (UDC) (Union of Christian Democrats), a catholic party, chose not to participate in any of the coalitions and competed on its own. Similarly, the Destra-Fiamma Tricolore, an extreme right party created by former MSI (Movimento Sociale Italiano) members, also decided to compete independently from any pre-electoral coalitions. In total, more than ten parties participated in the 2008 elections.

The two main competitors, the PD and the PdL, dominated the 2008 electoral campaign. Even to such an extent that smaller parties criticized the media for giving them too much coverage.

1 In 2006, the former two parties formed the pre-electoral alliance Ulivo.
The PdL won the 2008 parliamentary elections with a significant majority. It obtained 272 seats in the Camera (opposed to 211 seats for the PD) and 172 seats in the Senate (opposed to 132 for the PD).

In 2008, “only” 80.5 per cent of the electorate went to the ballot box. It was, at that point, the lowest figure in a parliamentary election in Italy’s history. Compared to the 2006 elections, Italy experienced a 3.1 percentage point increase of abstainers, which was the second highest increase in the non-vote in two subsequent elections so far (+ 3.1 percentage point, while in 2006 the increase was 3.2 percentage points). To illustrate this, you can observe the differences between the votes per party in the 2006 elections and in the 2008 elections in Table 1:

Table 1: A comparison between the 2006 and the 2008 elections

<table>
<thead>
<tr>
<th>Parties</th>
<th>2006</th>
<th>2008</th>
<th>Differences 2006-2008 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forza Italia</td>
<td>23,7</td>
<td>37,4</td>
<td>1,4</td>
</tr>
<tr>
<td>Lega Nord/MpA</td>
<td>4,6</td>
<td>8,3</td>
<td>3,7</td>
</tr>
<tr>
<td>l'Ulivo (+RnP)</td>
<td>33,9</td>
<td>33,2</td>
<td>-0,7</td>
</tr>
<tr>
<td>Di Pietro - Italia dei Valori</td>
<td>2,3</td>
<td>4,4</td>
<td>2,1</td>
</tr>
<tr>
<td>Rifondazione Comunista</td>
<td>5,8</td>
<td>3,1</td>
<td>-7,1</td>
</tr>
<tr>
<td>Verdi Comunisti Italiani</td>
<td>2,1</td>
<td>2,3</td>
<td></td>
</tr>
<tr>
<td>Sinistra Arcobaleno</td>
<td>2,3</td>
<td>2,3</td>
<td></td>
</tr>
<tr>
<td>UdC</td>
<td>6,8</td>
<td>5,6</td>
<td>-1,2</td>
</tr>
<tr>
<td>La Destra</td>
<td>0,6</td>
<td>2,4</td>
<td>1,8</td>
</tr>
<tr>
<td>Others</td>
<td>4,6</td>
<td>4,7</td>
<td>0,1</td>
</tr>
</tbody>
</table>

Table 1 shows that the parties that suffer significant losses are la Sinistra Arcobaleno (both with and without the other communist parties), the UDC and the PD (only if comparison with 2006 includes the RnP). Such results could be attributed to the bipolar scenario one finds in Italy. This indicates that if one is not included in a grand alliance, like la Sinistra Arcobaleno or the UDC, it is extremely difficult, if not impossible, to be part of a governmental coalition.
From table 1 it becomes clear that the party with the best result in terms of increased vote share (compared to 2006) is the Lega Nord, together with the MpA. With an increase of 8.3 percentage points, resulting in a total vote share of 9.4 per cent, the LN obtained its best result ever.

**RESEARCH QUESTIONS**

As aforementioned, the 2008 Parliamentary elections were characterized by a deeply changed party offer with respect to the previous elections. This significant change might have affected the choices of voters in several ways and directions. It might have discouraged the voters of small parties with no chance of winning from voting at all, or, on the contrary, given an incentive to previous non-voters to vote because they like the new setting better. Yet, we do not know whether the non-vote was playing a key role in the election outcome, if some parties were able to mobilize former non-voters and which parties suffered losses to the non-vote and/or to other parties.

In particular, this paper will try to answer the following research questions:

1) was the mobilization of non-voters playing a key role in the election outcome?
2) which were the parties suffering major losses to the non-vote? (differential abstention)
3) which parties were able to mobilize the non-voters?

The main research question (1) aims to assess whether the mobilization of non-voters played a key role in the election outcome. The attempt is to determine whether party strategies should focus more on conversion or mobilization (in this case of non-voters) by using the 2006 and 2008 Italian elections as a case study.

There is a vast literature supporting the idea that the direct transfer of votes from one party to other is the main way in which a party can gain or lose votes (Burnham, 1970; Erikson and Tedin, 1981; Key, 1955; Norpoth and Rusk, 2007; Sundquist, 1973). This is actually a plausible hypothesis in an era in which party loyalties are decreasing (Dalton and Klingemann, 2007; Dalton et al., 1984; Natale, 2000). Perrineau (2007) found that in the French electorate there was an augmentation of voters not only switching party, but even bloc (électeurs dissonants).

However, instead of coming from another party, the votes gained can also come from previous non-voters. A strong argument supporting this hypothesis comes from spatial
voting studies. In fact, it is easier to switch from a non-vote to a party than from one party to another (Torcal and Medina, 2007). Furthermore, it was already found that parties are able to mobilize a fair amount of abstainers (Pardos-Prado and Molins, 2009).

Questions two and three aim to delve into important aspects of the non-vote dynamics by looking at the party level. In fact, it is particularly interesting to both identify the parties that are suffering the major losses and which ones were actually able to mobilize previous non-voters.

On the loss-side, what is particularly of interest is whether these losses are down to a decision not to vote at all or to vote for another party. In fact, if one party (or bloc) suffered losses that other parties did not have to suffer, we would have a classical case of differential abstention (among others: Dolez 2004).

For instance, as we have shown, the alliance of the communist parties was the one experiencing major vote loss. It would be interesting to discover if their former voters – who did not vote for them in 2008 – decided not to vote at all or just chose another party.

Of course, it is important to know where these losses occurred, but it is equally important to check if the parties were able to mobilize previous non-voters (research question 2). Actually, in order to understand which parties succeeded in the mobilization of non-voters the best measure is the estimation of the net effect, that is the difference between the non-voters of the previous and current elections.

**METHOD: THE GOODMAN MODEL**

There are some models designed to estimate the flows-of-vote (Brown and Payne, 1986; King, 1997; Thomsen, 1987), but several studies suggest that the Goodman model is the most suitable for Italy. This is because the other methods are mainly developed for bipolar political scenarios, whereas the Goodman model works well with multi-party systems (De Sio, 2008, 2009).

In 1953, L.A. Goodman developed a statistical model capable of producing ecological inferences. Arguing against Robinson (1950), who stated that obtaining an ecological inference was always problematic, Goodman (1953) demonstrated that, under some conditions, ecological inference was possible, by treating the relationship to be studied as a linear one.
After some years, the Goodman model gained acceptance and was employed to estimate the flows-of-vote among parties with aggregate data.

The regression coefficients required can be estimated with standard regression procedures. The procedure most often used is the OLS (Ordinary Least Squares).

The model assumes that the population of the electoral division can be classified using two variables. The variable $Y$ (the $t_0$ election) has $K$ categories (the parties in the $t_0$ election), the variable $X$ (the $t_1$ election) has $J$ categories (the parties in the $t_1$ election). Then, $Y_k$ is the fraction of the population that belongs to the $k$ categories of the $Y$ variable, and $Y_k$ is the fraction of the population that belongs to the $j$ categories of the $X$ variable.

It is clearly unacceptable to have either a negative value for a fraction of the population or a fraction that is larger than the total population itself; therefore this mathematical expression is appropriate:

$$0 \leq Y_k \leq 1$$
$$0 \leq X_j \leq 1$$

With regard to the voters, each one must belong to only one category, and therefore, the sum of all the fractions of the population representing the various categories of the same variable has to be 1:

$$Y_k = \sum_{j=1}^{J} b_{kj} X_j$$
$$X_j = \frac{1}{j} \sum_{k=1}^{K} b_{kj}$$

Every voter belonging to the $k$ category of the variable $Y$ has to belong to only one category of the variable $X$. That is, every voter who voted in the previous election has to be reallocated in the subsequent election. The voters who do not vote (abstainers) are treated in the same way as voters for an actual political party.

Then, if $b_{kj} X_j$ is the fraction of the total population which belongs both to the $k$ category of the $Y$ variable, and to the $j$ category of the $X$ variable, we will have that:

$$Y_k = b_{k1} X_1 + b_{k2} X_2 + b_{k3} X_3 + ... + b_{kj} X_j$$

where the $b_{kj}$ are the fractions of the $X_j$ which belongs to the $Y_k$ category.

Basically, for every electoral division of the sample (or the population if all national polling
stations are employed) the equation to apply is:

\[ Y_1 = b_{11}X_1 + b_{12}X_2 + b_{13}X_3 + \ldots + b_{kj}X_j \]
\[ Y_2 = b_{21}X_1 + b_{22}X_2 + b_{23}X_3 + \ldots + b_{kj}X_j \]
\[ Y_3 = b_{31}X_1 + b_{32}X_2 + b_{33}X_3 + \ldots + b_{kj}X_j \]

\[ \vdots \]
\[ \vdots \]
\[ Y_k = b_{k1}X_1 + b_{k2}X_2 + b_{k3}X_3 + \ldots + b_{kj}X_j \]

In the Goodman Model, the independent and dependent variables represent fractions of the population and the regression coefficients correspond to these fractions, so that it is not possible for the coefficients to have values greater than 1 or negative values.

If these unacceptable values do appear, it is necessary to re-adjust them in order to obtain the values of the coefficients that are between 0 and 1, as the Goodman model requires.

Of course, any re-adjustment of the value of the coefficients has to be as minimal as possible. The VR (Re-distributed Value) coefficients allow us to measure the re-adjustment (Schadee and Corbetta, 1984). The VR coefficients could be taken as the fraction of the population eliminated from the total to allow for the positive values, which the model requires. Experts suggest that the values of the VR coefficients have to be smaller than 0.15.

An important aspect of the Goodman Model is the level of aggregation. In order to obtain accurate estimates, it is crucial to employ data at the lowest level of aggregation. The broader the analysed area, the less reliable the estimates become (Schadee and Corbetta, 1984).

The main reason why the Goodman model was employed in this paper is that Italy has a long tradition in the application of this model. This means that there is a solid literature validating the effectiveness of the use of the Goodman model in this country (Schadee and Corbetta, 1984).

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2 Schadee and Corbetta, 1984
3 The most commonly employed ways to re-adjust the coefficient are to use constrained least squares or to apply the estimates obtained by the OLS approach and the RAS algorithm.
4 The values of the VR coefficients have to be smaller than 0.15 if the population is expressed in fractions, and smaller than 15 if the population is expressed in percentages.
1984; Biorcio and Natale 1987; Agnew 1994, 1996; De Sio 2008; D’Alimonte and De Sio 2010) while there are very few studies (Ricolfi 1990, De Sio 2008) on the application of other techniques (Brown and Payne 1986, King 1997) the Goodman model continued to be the preferred one to use when estimating Italian flows-of-vote. In fact, these other models were originally built to measure the electoral flows in a two-party system (King 1997; Brown and Payne 1986), whilst Italy is a multi-party system.

One Italian scholar, Lorenzo De Sio, tried to apply the King model to estimate the Italian electoral flows (De Sio 2008). He argued that the King model offered more reliable estimates\(^5\), but when he compared the estimates obtained by the King and the Goodman Model, they were not very different. In fact, in later researches De Sio employed the Goodman model (D’Alimonte and De Sio 2010). This is not surprising since several researches showed that differences between the Goodman and King approaches can be quite small (Grofman et al. 1988; Grofman et al. 2009). In fact, the King model is simply Goodman’s regression approach using the Duncan and Davis (1953) deterministic bounds to inform the results.

Another reason that explains why the Goodman model is not so popular in other countries with multi-party systems is that it is not always possible to obtain aggregate electoral data at a very low level, as the polling station level (Agnew 1996). In fact, to the best of my knowledge only Italy and Germany have data available at the polling station level. With regard to the countries with two-party systems (such as UK and USA) they traditionally use the already mentioned models (among others: Brown and Payne 1986; King 1997).

When using the Goodman model, it is crucial to employ data at the lowest possible level of aggregation. After all, the broader the analysed area, the less reliable its estimates are (Schadee and Corbetta, 1984). Therefore, it is not a suitable solution to estimate flows-of-vote for Italy as a whole. It would be more appropriate to divide Italy in smaller areas and provide estimates for these areas. One of the smaller areas one can examine is an electoral district, or collegio uninominale, which this paper will apply as its unit of analysis (see section “Data”).

\(^5\) Even though a strong criticism was offered by M. Herron, 2003.
One concern remains, which is the occurrence of replacements/modifications in the lists of voters for the electoral divisions, i.e. the lists of those entitled to vote in a particular polling station. In order to resolve this problem, polling stations with a between-election difference in the electoral division lists of voters that exceeded ten per cent have been eliminated. The result of this transformation was the preservation of 55.081 out of 60.077 polling stations, or a total of 91.61 per cent of the polling stations.

DATA

In this paper we use the votes for the Chamber of Deputies, Camera dei Deputati, as data. Actually, Italy is a bicameral system composed by the Chamber of Deputies and the Senate, but the voters of the Chamber are required to be eighteen years old, and the voters of the Senate twenty-five. Hence, the Chamber election involves young voters too.

In order to estimate the flows-of-vote we used the lowest aggregation level of electoral data, which is the polling station level (in Italian sezione elettorale). Each polling station includes approximately between 500 and 1200 voters. There are about 60.077 polling stations in Italy.

Even if the Collegi Uninominali (constituencies) were suppressed in 2005, it is useful for this research to employ this division of Italy into smaller areas for two reasons: first, in each constituency there are about 100,000 voters, so in calculating the electoral flows on a such a small number, the analysis is conducted on an homogeneous area, both politically and culturally speaking.

A dataset was created for each constituency, so we ended up with 466 datasets. Actually, there were 475 constituencies in Italy (not including the region of Valle d’Aosta), but in this paper I excluded two Italian regions from the analysis (Valle d’Aosta and Trentino Alto-Adige), because they have a very different and diverse party offer, which is not comparable with the rest of the Italy. On each dataset the following criteria were applied. Every polling station in each dataset must have:

- More than 0 members in the electoral list;
- More than 0% of non-votes;
- A maximum of 10% difference between the two elections in the polling station’s lists of voters.
Applying these criteria makes it possible to eliminate the polling stations with an unstable voting population\textsuperscript{6} from the analysis.

Clearly, the quality of the aggregate data per se is not an issue, since this research is not dealing with a sample but with the entire population and, consequently, there are no problems in terms of completeness or selection of the data.

The key point in this case is the quality of the flows-of-vote estimates. Of course, it is not possible to assess this by comparing the Goodman estimates with some real result. In fact, these kinds of estimates are not comparable with the electoral results, and, clearly, the real quota of the swing voters is unknown. Anyway, there is a coefficient that makes it possible to check whether the flows-of-vote estimates are reliable. As abovementioned (in the section describing the Goodman model) coefficients with values which are greater than 1 or negative may appear, but in these cases it is necessary to re-adjust them in order to obtain the values of the coefficients that are between 0 and 1. The size of this re–adjustment is measured by the VR (Re-distributed Value) (Schadee and Corbetta, 1984). If the VR coefficient is smaller than 0.15 (or 15, if the population is expressed in percentages) the flows-of-vote estimates are reliable. With regard to the estimates presented in this paper, the VR values are very good on average (5.53%). Only in one single case does the VR exceed the threshold of 15%, and then only by 0.01 percentage point. This barely unreliable estimate refers to polling station 12 of constituency 2 (Piedmont), but it is a very isolated case, and the level of the VR is very good overall throughout the country.

To summarize, it is clear that the flows-of-vote estimates can be considered very reliable, both with regard to the number of polling stations on which the analysis was performed and to the VR values.

**RESULTS**

This section illustrates the main flows-of vote. After a brief introduction on how to read and interpret the flows-of vote tables, the main results are presented under the three main perspectives: stability, switching between blocs and switching among parties.

The 2008 Italian Parliamentary elections were marked by the lowest turnout (80,5%) and the

\textsuperscript{6} For instance, the polling stations in hospitals have 0 members since the hospitals’ population is constantly changing. These kinds of polling stations are eliminated for this sort of analysis.
second highest number of non-voters in Italian history (22.4%). The non-vote could basically be considered the “third party” in terms of size (after PdL and PD, which collected more than 30%).

In order to answer the RQ and find out whether the mobilization of non-voters played a key role in the elections outcome, we need to estimate the flows-of-vote at the national level. To estimate the flows-of-vote at the national level, parties were grouped in a slightly different way with respect to Table 1. So, first of all, we should further explain which criteria were employed for grouping the parties.

For the new parties PdL and PD, the estimates of the parties composing them in 2006 (Forza Italia and Alleanza Nazionale for PdL, and Ulivo and Rosa nel Pugno for PD) were obtained separately, in order to have a more detailed picture of the flows-of-vote.

Other very small communist parties were added to the parties composing the Sinistra Arcobaleno (the Sinistra Critica and the Partito comunista dei Lavoratori, which were part of the Rifondazione Comunista in 2006), and a small fascist party called Forza Nuova was added to La Destra.

It is more appropriate to do so because the category “other parties” (which is split into “others left” and “others right” for the flow-of-vote estimation) is, ideologically speaking, very miscellaneous. Instead, the parties that were added to the Sinistra Arcobaleno and La Destra have a precise ideological connotation, so, for this kind of analysis it was reasonable to group those similar parties together.

The “other” parties have to be considered as a sort of residual category. Actually, both for the left and for the right, the parties composing the “others” category were by and large not the same ones in the 2006 and 2008 elections.

Finally, even though they are two different parties, Lega Nord and MpA are treated like one single party for the estimations in this analysis. In fact, as described in the earlier discussion, these two parties came to an agreement: Lega Nord ran in the North and the Centre of Italy, and MpA ran only in the South and on the Islands.

Table 2 shows the national flows-of-vote estimates. They are obtained by taking the average of the estimates of the 466 districts we examined.
In order to correctly read the matrix of the flows-of-vote, just consider that the total of the whole table is 100%. Thus, the matrix has to be read as follows: for every 100 votes gained, in the column you can find the votes that each party (from 2006) is losing in favour of the parties in the rows (from 2008).
Stability

It is well known that voters tend to be stable overall. Indeed, Butler and Stokes (1974) – and later on also Dinas (2010) – found out that the chances of changing party are lower the more elections a voter has been voting for the same party. Butler and Stokes call this phenomenon “immunization”. Of course, immunization against change does not mean that change is impossible, but a swing is indeed less likely to happen if the voter voted for the same party three times in a row. Hence, to switch party is more common among young voters not yet “immunized”.

As can be seen, the majority of voters (69.02%) chose the same party in both elections. Thus, only 30.98% of the voters changed party from one election to the other. This finding confirms what was already shown by other researches: the Italian electorate tends to be very stable (Corbetta et al., 1988; Natale 2000; Russo 2011, 2013).

When looking at the phenomenon of the non-vote in terms of stability, it is possible to state that stability is a characteristic of non-voters too. Indeed, the non-vote is the third “party” in terms of faithful (non-)voters: only the two major parties (PdL and PD) can count on a bigger quota of them.

Another way to look at stability is to check how many voters decided to vote for the same bloc, that is: to vote for the same party or for another one, but remaining in the left or the right bloc.

Switching between blocs

Switching from one bloc to another is obviously more extreme than switching among parties within the same bloc, because this implies crossing an ideological boundary. For this reason the flows between blocs are a particularly interesting level of analysis. It is possible to obtain the percentage of switching and stable voters with regard to blocs by simply dividing Table 2 in quadrants, which gives us Table 3. By adding up the percentages in the quadrants, it is possible to obtain the percentage of voters who switched from the right to the left bloc and vice-versa. Furthermore, it is also possible to check how many voters switched from a non-vote to one of the blocks. Table 3 shows the switches among blocs (right, left and non-vote).
It is important to underline that Table 3 does not divide the parties into coalitions, but in a right and left bloc\(^7\).

\(^7\) In this case, the blocs do not reflect the left and the right coalitions. In fact, both the parties and the coalitions composition changed significantly between 2006 and 2008. An analysis on coalitions would imply a different way of grouping the parties (especially with regard to the “other” categories) when running the flow-of-vote estimates.
Table 3: Goodman estimates per bloc (right and left).

<table>
<thead>
<tr>
<th>Parties 2008</th>
<th>FI</th>
<th>AN</th>
<th>Lega Nord &amp; MpA</th>
<th>UDC</th>
<th>Post-fascist</th>
<th>Other right</th>
<th>Parties 2006</th>
<th>Ulivo</th>
<th>IdV</th>
<th>RnP</th>
<th>Communists</th>
<th>Other left</th>
<th>No-vote</th>
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<tbody>
<tr>
<td>PdL</td>
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<td>Lega Nord &amp; MpA</td>
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<td>No-vote</td>
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<td></td>
<td></td>
<td>PdL</td>
<td>35.75</td>
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<td>4.77</td>
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<td>IdV</td>
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<td>30.58</td>
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<td>0.53</td>
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<td>No-vote</td>
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<td></td>
<td></td>
<td>4.45</td>
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<td>16.68</td>
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</tbody>
</table>
According to Torcal and Medina (2007) bloc switching is quite rare since getting voters to cross ideological boundaries is more difficult than mobilizing former abstainers. As you can see, this is not the case for electoral switching in Italy between 2006 and 2008. For each bloc there are more voters switching towards the other bloc than towards a non-vote.

Furthermore, Table 3 shows that voters from the right are more faithful than the leftist ones: 35.75% of right-bloc voters were faithful versus 30.58% of faithful leftist voters; and only 2.46% of the 2006 right-wing voters switched to the left in 2008 versus 4.77% of citizens who voted for the left in 2006 and switched to the right bloc in 2008. This finding is comparable to the one observed by Perrineau (2007) for the 2007 French elections. In an era in which party loyalties are decreasing (Dalton, 2007; Dalton et al., 1984; Natale, 2000), the so-called électeurs dissonants (Perrineau, 2007) or external volatility (Lehingue, 1997; floating voters who not only choose another party, but even another bloc) are no longer something rare.

By focusing on the non-vote we notice that the right-wing parties gained 2.46% from non-voters, and lost 2.30% to the non-vote category, keeping the exchange quite balanced (even slightly positive). Instead, the left-wing parties gained only 0.53% from non-voters while losing 4.45% to the non-vote. This is a loss of almost 4 percentage points in favour of the non-vote from one election to the other. When we ignore the balance and focus only on the switches towards the non-vote, it is clear that this is a case of differential abstention, in which the left is the one suffering the major losses.

Table 3 also highlights that, for each bloc, the quota of voters switching towards a non-vote is about the same as the one switching towards the opposing bloc. This suggests that the non-vote played a role that is as important as the one played by actual party switches, at least at the bloc level.

However, as stated before, Table 3 focuses on blocs and not on electoral coalitions. Therefore it only gives a general idea of the importance of the mobilization of former non-voters. Yet, in order to understand the role and impact of this mobilization, it is crucial to look at the party level.

**Switching between parties**

Moving on to the level of parties and answering the research question on the losses (differential abstention) and the gains, we first have to note that the majority of voters
(69.02%) chose the same party in both elections. In fact, you can see that the biggest percentages in Table 2 are the ones that indicate the amount of voters who voted for the same party both in 2006 and 2008.

Table 4 summarizes several important pieces of information. The main aim of this table is to show the gains and losses for each party, paying special attention both to the faithful voters and the non-vote. The attempt is to show the different aspects of the composition of the flows-of-vote.

Table 4: Net effects (%).

<table>
<thead>
<tr>
<th>Block</th>
<th>Parties</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
<td>PdL</td>
<td>466</td>
<td>-3,97</td>
<td>8,43</td>
<td>0,25</td>
<td>1,88</td>
</tr>
<tr>
<td></td>
<td>Lega Nord &amp; MpA</td>
<td>466</td>
<td>-1,16</td>
<td>4,11</td>
<td>0,07</td>
<td>0,49</td>
</tr>
<tr>
<td></td>
<td>UDC</td>
<td>466</td>
<td>-2,67</td>
<td>4,20</td>
<td>-0,01</td>
<td>0,77</td>
</tr>
<tr>
<td></td>
<td>Post-fascist</td>
<td>466</td>
<td>-1,12</td>
<td>1,54</td>
<td>-0,02</td>
<td>0,30</td>
</tr>
<tr>
<td></td>
<td>Other right</td>
<td>466</td>
<td>-6,59</td>
<td>0,60</td>
<td>-0,13</td>
<td>0,52</td>
</tr>
<tr>
<td>Left</td>
<td>PD</td>
<td>466</td>
<td>-7,74</td>
<td>1,36</td>
<td>-1,77</td>
<td>1,56</td>
</tr>
<tr>
<td></td>
<td>IdV</td>
<td>466</td>
<td>-4,94</td>
<td>3,24</td>
<td>-0,19</td>
<td>0,53</td>
</tr>
<tr>
<td></td>
<td>Communists</td>
<td>466</td>
<td>-6,27</td>
<td>1,13</td>
<td>-1,60</td>
<td>1,33</td>
</tr>
<tr>
<td></td>
<td>Other left</td>
<td>466</td>
<td>-3,73</td>
<td>1,11</td>
<td>-0,36</td>
<td>0,69</td>
</tr>
</tbody>
</table>

The first column, the Losses [1], is the sum of all the losses a party suffered, that is, the percentages in the column8.

The Losses [2] are again the losses a party suffered, but in this case the non-vote losses are excluded, in order to keep only the losses a party suffered towards other parties. The Gains [1] are the votes gained by each party, excluding both the faithful voters and the gains from the 2006 non-vote. The Gains [2] are again the votes gained by each party, however in this column the non-vote is included, while the faithful voters are still excluded. The Net non-

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8 For example, referring to the Table 2 the UDC’s losses are calculated as: 1.41 + 0.53 + 0.10 +0.12+0.44+0.15+0.06+0.07+0.38.
vote is the difference between the votes lost towards the non-vote category in 2008 and the ones gained from 2006 non-voters. Since in this whole research the non-vote was treated as a proper party, the losses towards and the gains from the non-vote were treated accordingly. Of course, the non-vote is not a proper party at all. Thus, because of its peculiarity, it seemed appropriate both to have a separate column for its net effect and to make some distinctions in computing the gains and the losses.

The Net is the difference between the Losses [1] and the Gains [2]. This is the net effect after adding up all the losses and the gains (non-vote included), not considering the faithful voters. By focusing on the party level from a substantial point of view, it is possible to answer research questions n°2 and n°3, that is: which parties were suffering the major losses and which ones were instead able to mobilize previous non-voters.

The parties suffering the most severe losses are the PD and the group of the communist parties. Both parties represent a case of differential non-votes at the party level (we already observed the differential non-vote at the bloc level).

With regard to the PD, Table 1 shows that in 2008 this party (which is mainly composed by the Ulivo and the RnP) suffered some losses in terms of valid votes with respect to the 2006 elections. From the analysis of flows-of-vote emerges that this is mostly due to the losses toward the non-vote, while the balance of flows-of-vote with other parties is positive. Table 4 summarizes it clearly: in the column Net non-vote the value of the PD is the worst one (−1.77). Instead, when checking Table 2, you notice that the PD gets a very good result in terms of the balance of gained/lost votes with respect to other parties (1.43). In spite of several losses (see Table 2) the balance was still positive, but the PD suffered quite severe losses that were not compensated by the gains, like the ones towards the PdL (0.90), the UDC (0.57), the IdV (1.24), the group of the “other” left parties (0.49) and the non-vote (1.90).

But the vote exchange with the group of the communist parties was largely in favour of the PD. Indeed, the loss amounts to only 0.51 percentage points, and the gain is 2.54 (so the net gain is 2.03). The flow-of-vote going from the group of the communist parties towards the PD is the biggest one (when excluding the faithful voters, of course).

Clearly, the PD got a great advantage from the fact that the communist parties (in particular
the Sinistra Arcobaleno\textsuperscript{9} were not included in the left-wing coalition. Thus, it seems that the “useful vote” logic was actually an incentive for a fair amount of voters to switch from one of these communist parties to the PD.

Although the group of communist parties suffered the worst electoral result, as Table 1 indicates, it is suffering only the second worst result in terms of losses towards the non-vote. This is due to the fact that the communist parties did not sufficiently compensate the losses towards the non-vote with gains coming from other parties. Instead, the flow-of-vote between the communist parties and the PD was actually the biggest one (2.54) in the whole flow-of-vote matrix (Table 2).

In both these cases demobilization was actually paying an important role. However, with regard to the PD, the losses towards the non-vote were not crucial. Indeed, the demobilization was sizeable but even without those losses the electoral victory would still be far off, as the distance between the right and the left coalitions was 9.2 percentage points\textsuperscript{10}. Instead, the losses towards the non-vote suffered by the communist parties were crucial. The Sinistra Arcobaleno reached 3.1\% (see Table 1) and the threshold to get seats in Parliament was 4\%. So, a net loss of 1.6 percentage points was decisive indeed.

With regard to the gains, Table 4 shows that there were only two parties that were able to mobilize previous non-voters: the PdL and the territorial parties (the Lega Nord and MpA). It is quite interesting to notice that the PdL is the party experiencing both the biggest losses and the biggest gains.

Taking a look at the main PdL gains in 2008, there are two important ones: 1.41 percentage points from UDC, and 1.65 percentage points from the non-vote.

The votes coming from UDC can be easily interpreted as “useful” votes. In fact, as described earlier, in 2008 the UDC did not join the right-wing coalition. Therefore, the previous UDC voters who were willing to vote for a right-wing party that was likely to win the election, moved to the PdL.

Even more interesting is the ability of the PdL to mobilize a fair number of 2006 non-voters. Actually, the PdL is the only party that was able to mobilize such a large amount of non-

\textsuperscript{9} It is useful to remember that, as stated in the earlier discussion, the Sinistra Arcobaleno accounts for 3.08 percentage points of the 3.1 considered to estimate the flow-of-vote (this total includes two other small communist parties).

\textsuperscript{10} The right-wing coalition (composed by PdL, Lega Nord & MpA) collected 46.8\%, while the left-wing coalition only got 37.6\%.
voters: there is no other flow from non-votes to a party that exceeds 0.4 percentage points. Anyway, the mobilization of the 2006 non-voters seems to be largely balanced by the 1.40 percentage point loss in favour of the non-vote in 2008. In the end, the balance is still positive: a net gain of 0.25 percentage points, which is actually the best performance in this sense amongst all the parties (see Table 4)\(^\text{11}\).

In the end, it seems that the 1.4 percentage points gained by the PdL at the 2008 Parliamentary elections (see Table 1) came mainly from voters who switched party, but the mobilization of the non-vote also played an important role. The other parties collecting a positive net effect in terms of non-vote are Lega Nord and MpA (Movimento per le Autonomie).

Table 4 shows that when assessing the specific Lega Nord and MpA net effects the positive value in Table 2 was caused by MpA. In fact, the Lega Nord value is even slightly negative. Since in Table 1 we saw that the 2008 Lega Nord electoral result was actually better than the one obtained in 2006, it is possible to state that the votes gained did not come from the mobilization of the non-vote, but rather from other parties, and especially from PdL.

7 Conclusions

Studying abstention and the non-vote is important for several reasons. First of all, low turnout is often considered bad for democracy, because it is supposed to be a sign of disaffection (Dalton 1999, 2004, Norris 1999). Furthermore, from a party perspective, turnout is a key point, because mobilizing the electorate to get out and vote is crucial for the electoral result.

This paper is a first attempt in order to estimate the quota of floating voters in the area of the non-vote by using aggregate data and an ecological inference model.

The analysis carried out in this paper leads to two kinds of conclusions: one substantive and one methodological.

From a substantive point of view, it shows that in the 2008 elections the right bloc was able to get a net positive balance in terms of the mobilization of the non-vote (that is, votes gained from the 2006 non-vote minus votes lost in favour of the 2008 non-vote), while the

\(^\text{11}\) By decomposing the PdL’s loss in favour of the non-vote (by decomposing the 2006 PdL and getting separate estimates for Forza Italia and Alleanza Nazionale, it emerges that the party contributing more to the losses is Forza Italia, with 0.81 percentage points, versus Alleanza Nazionale’s loss of 0.59 percentage points.
left bloc lost about 4 percentage points, being the “victim” of a differential no-vote. At the party level, it turns out that the parties suffering the major losses are the group of communist parties (which cost them a place in parliament), followed by the PD, the main centre-left party. On the other hand, it appears that the only party gaining a considerable quota of former non-voters is the PdL, Silvio Berlusconi’s party.

We also showed that the PdL was the only party with a positive net effect. Even if the non-vote net effect does not seem to play a huge role (and some concerns about the estimates suggest that we should be careful in interpreting the PdL’s flows-of-vote) it seems that the mobilization of the non-voters played a role in determining the electoral success of this party, especially by counterbalancing the losses towards other parties.

The Lega Nord did not mobilize previous non-voters, but attracted a fair quota of former PdL voters. Instead, the other territorial party, the MPA (Movimento per le Autonomie), had a positive non-vote net effect.

The PD, instead, suffered major losses to the non-vote, but these losses were balanced by flows-of votes coming from the communist parties.

Finally, the communist parties lost part of their votes to the non-vote and to other parties.

This analysis shows that both the conversion and the mobilization of non-voters played an important role in the final electoral results.

From a methodological point of view, we saw that the national non-vote rate itself does not give sufficient information in order to understand the actual phenomenon. Of course, only surveys can help to understand the individual motivations of non-voters, and we have come a long way in comprehending the levels of election turnout (Legnante and Segatti 2001, Franklin 2004, Raniolo 2002, Turto 2006). But, ecological data are a valuable addition to this research field, for at least two different reasons. First, it is possible to include the whole population in the analysis and not just a sample, but, above all, it is possible to avoid the classical problem of the underreporting of the non-participation that surveys are very often subject to (Selb and Munzert, 2011).
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