Tracing the electorate of the MoVimento Cinque Stelle:

Tracing the electorate of the MoVimento Cinque Stelle: an ecological inference analysis

LUANA RUSSO[1]*, PEDRO RIERA[2] AND TOM VERTHÉ[3]

[1]*Maastricht University, Department of Political Science, Maastricht, The Netherlands*
[2]*University Carlos III of Madrid, Department of Social Sciences, Madrid, Spain*
[3]*Vrije Universiteit Brussel, Department of Political Science, Brussels, Belgium*

The 2013 Italian parliamentary election was characterized by the outstanding performance of the *MoVimento Cinque Stelle*, which in its first participation in a general election obtained a remarkable 25% of the national vote. Where did these votes come from? Furthermore, is it possible to observe different electoral dynamics across geographical areas of Italy? In order to address these questions, we first estimate the flow of votes between the 2008 and 2013 general elections by applying an ecological inference method – the Goodman model – to the entire Italian voting population, and then we take a closer look at the differences in the four geopolitical areas in which Italy is traditionally divided. We find that the extraordinary performance of the *MoVimento 5 Stelle* was largely due to its capacity of attracting similar amounts of former *Partito Democratico* and *Popolo della Libertà* supporters, as well as a considerable amount of voters from their traditional allies: *Lega Nord* and *Italia dei Valori*. The *MoVimento 5 Stelle* was also able to mobilize previous non-voters. We shed light on the territorial features of these dynamics.

Keywords: elections; Italy; voting behaviour

Introduction

In the past two decades, many established democracies have recorded remarkably high levels of electoral volatility (Mair, 2005). Either as a consequence of new party entry and old party exit or as a result of vote switching across existing parties, parties' vote shares have become increasingly less stable between elections (Dalton and Wattenberg, 2000). Electoral earthquakes have happened in Italian recent history as well. According to the most commonly used measure of electoral volatility (Pedersen, 1979), two Italian general elections (i.e. 1994 and 2013) are at the top of the list of the most volatile elections in Western Europe since the Second World War with values that are well above 35%.[1] Yet, these two cases have very

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[1] *Source*: Authors' own calculation of the well-known Pedersen Index of electoral volatility: $VT = \frac{1}{2} \sum |\Delta p_i|$, where Δp_i represents the change in the percentage of votes received by each party between time periods t and t_1.

* E-mail: l.russo@maastrichtuniversity.nl

little in common. On the one hand, the chief reason of such a high volatility in 1994 was the disappearance of the main left- and right-wing parties. This caused a massive re-structuration of the political market. Nonetheless, the newly branded parties that emerged in 1994 unambiguously positioned themselves on the left-right continuum. By contrast, electoral volatility cannot be explained by the exit of any of the established parties in 2013. Moreover, the new political party that entered the fray in that occasion [i.e. the *MoVimento 5 Stelle* (Five Star Movement) – *M5S* hereinafter] does not fit into the traditional left-right dimension. Hence, examining the composition of the electorate of this party is crucial to better understand how voters perceive it and what the dimensions of electoral competition were in that election.

Our goal is to understand the sources of volatility in the context of the 2013 Italian parliamentary election. Why the M5S performed so well in its first participation in a general election is puzzling. Despite the tardy official decision to enter the competition (only 4 months before the elections were held), the *M5S* obtained an impressive 25% of the vote share, beating estimations by polling institutes by 10 percentage points (Hanretty, 2013) and making it the most voted list if one does not count the votes cast by Italians abroad. It ended up just in front of Italy's main centre-left party [*Partito Democratico* (PD)], and clearly outperformed Italy's main centre-right party [*Popolo della Libertà* (PdL)]. From the very beginning of the electoral campaign, the *M5S* positioned itself outside of the left-right continuum and declared upfront that it would not participate in a coalition government with either the left- or right-wing parties. The declared objective of this strategy was to be the most voted party in order to get the majority seat bonus and govern alone.

The electoral success of the *M5S* has been investigated in the light of a variety of theories (e.g. Tronconi, 2015) and by using both individual- (Itanes, 2013) and aggregate-level data (Tronconi, 2013). Survey data were largely employed to figure out the reasons for voters' swing towards the *M5S* (Itanes, 2013; Tronconi, 2015) and to estimate which parties they voted for before (De Sio and Schadee, 2013). Aggregate-level data were employed to carry out geographical analyses (Tronconi, 2015) and, similarly to survey data, to investigate voters' switch among parties (Tronconi, 2013). Although our analysis presents some similarities with the swing estimates obtained from survey data (e.g. the amount of votes gained from the *PD*), it also highlights some important differences (e.g. the amount of votes gained from the *PdL* and from abstention). Hence, our findings confirm that employing aggregate data can be very useful when estimating the swings, especially when a new party is involved, because sampling errors cannot occur (Bethlehem, 2009) and interesting differences with survey data estimates might emerge.

In this paper, following the approach used by De Sio and Paparo (2014), we estimate the flow of votes between the 2008 and 2013 elections by applying an ecological inference method, the Goodman model (1953), first to the entire Italian voting population at the polling station level, and then to the four geopolitical areas

proposed by Diamanti (2003).[2] However, unlike De Sio and Paparo (2014), who are interested in providing an overall picture of the flows of vote, we primarily focus on the movement of votes involving the *M5S*. Therefore, in this paper we pay special attention to the composition of the *M5S* electorate (both at the national and subnational levels). We will show that the *M5S* was able to attract about the same amount of former left- and right-wing voters while also mobilizing a considerable group of previous non-voters, and that this dynamic is overall speaking the same across the four geopolitical areas analysed – even if involving different political parties across them. Focussing on four subnational areas is appropriate, as electoral behaviour in Italy has always been characterized by a remarkable geographical component (Agnew, 1996, 2002; Diamanti, 2003; Shin and Agnew, 2007).

We are aware that the application of the Goodman model to the entire Italian population and to large macro-areas has to be interpreted with caution, as some scholars (e.g. Corbetta and Parisi, 1984) argue that the flow of votes estimates can be considered reliable only when applied to a homogeneous context such as a municipality (Tronconi, 2013), for instance, performed a local analysis of aggregate data at the local level by only considering 11 municipalities. However, other authors (e.g. Biorcio, 1993; Natale, 2000) claim that even within a municipality there are areas that cannot be seen as homogenous and show evidence that flow of votes estimates at the national level can be also considered reliable – the aforementioned work of De Sio and Paparo (2014) proposes an analysis based on national data as well.

The 2013 Italian parliamentary election and the M5S

The 2013 Italian parliamentary election took place 4 months before the end of the normal 5-year electoral cycle as a consequence of the early dissolution of the previous parliament on 22 December 2012. Although new elections were in principle not necessary as the main centre-left (*PD*) and centre-right (*PdL*) parties had reached an agreement to install a technical government led by the economist Mario Monti, they had to be called when the *PdL* withdrew its support and toppled Monti's cabinet. During the Monti's government a strict austerity policy was enacted, which was appreciated at the European level but was at times strongly criticized within Italy itself. The new elections were scheduled for 24 and 25 February 2013. The elections were characterized by the emergence of a few new parties trying to compete with the traditional centre-left and centre-right parties – *PD* and *PdL* – and their main partners: *Sinistra Ecologia Libertà* and *Lega Nord* (LN),

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[2] De Sio and Paparo (2014) adopt a different geographical perspective by focussing on three areas (North, Red zone, South), based on a dissimilarity index. Also, since we focus on the ideological left-right dimension, we do not propose a singular miscellaneous category for the *other parties*, but we distinguish between *other left* and *other right*.

Table 1. *Chamber of deputies 2008 and 2013 election results (% valid votes)*

L-R coalitions	Parties		2008 (%)	2013 (%)	$\Delta_{08–13}$ (%)
	2008	2013			
Right	PdL	PdL	37.38	21.56	−15.62
	Lega Nord	Lega Nord	8.30	4.09	−4.21
Centre	UDC	Con Monti per l'Italia	5.62	10.56	+4.94
Left	PD	PD	33.18	25.43	−7.69
	Sinistra Arcobaleno	SEL	3.08	3.20	+0.12
None	IdV	Rivoluzione Civile	4.37	2.25	−2.12
	–	M5S	–	25.56	–
	–	Fare per Fermare il Declino	–	1.12	–
Miscellaneous	Other	Other	8.07	6.23	−1.84

L-R = left-right; PdL = *Popolo della Libertà*; UDC = *Unione di Centro*; PD = *Partito Democratico*; SEL = *Sinistra Ecologia Libertà*; M5S = *MoVimento 5 Stelle*.

respectively. However, the most relevant change in the electoral supply was the emergence of the *M5S*, which ran in a national election for the first time.

The election results are presented in Table 1. First of all, it should be noted that electoral participation followed the sharp decline of the last four decades in Italy and turnout rates decreased by 5 additional percentage points, going down from 80.45% in 2008 to 75.17% 5 years later. Data displayed in Table 1 clearly illustrates that the party supply in 2013 was slightly larger than 5 years before. Moreover, two new options (i.e. *Con Monti per l'Italia* and *M5S*) gained a substantial amount of votes at the expense of the two big parties, *PdL* and *PD*, which suffered remarkable electoral losses. Partly as a consequence of these facts, party system fragmentation increased considerably in 2013: the effective number of electoral parties went from 3.82 to 5.33.

Especially important is the performance of the *M5S*, which obtained more than 25% of the votes and became the first single party within Italy.[3] As mentioned before, polling companies heavily underestimated the Movement's result, which was projected to be about 15% (Hanretty, 2013). Led by the comedian Beppe Grillo, the *M5S* had started to participate in conventional politics by taking part (quite successfully) in the 2010 municipal elections under the label *Liste a Cinque Stelle* (Five Star Lists).[4] More positive results were reached at the 2010 regional

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[3] Italy employs a system of pre-electoral coalitions. In the 2013 parliamentary election four coalitions were formed: centre-left, centre-right, centre, and left. Two parties participated as stand-alone: *Fare per Fermare il Declino* and *M5S*. Being part of a coalition is relevant as the electoral law grants extra seats (a majority prize) to the most voted coalition. So, even if *M5S* ended up being the first single party (not counting the Italians abroad), it did not get these extra seats – those went to the centre-left coalition led by the PD.

[4] Other experiments had already taken place, at the local level, under the label of *Amici di Beppe Grillo* (Beppe Grillo's Friends).

elections and the 2012 local elections, with more than 150 *grillini* sitting at local councils and four candidates elected as mayors (Bordignon and Ceccarini, 2013). In October 2012, Grillo announced on YouTube that the *M5S* would participate in the upcoming 2013 general election.

Mainstream parties occupied a special place amongst the various targets of Grillo and his supporters since the very beginning (Tronconi, 2015). This distance from traditional political actors was underlined by the decision of not accepting candidates who were members of any other party, or had been elected for a political office more than once in the past. These requirements made the profile of its candidates fundamentally different from that of the traditional professional politician. Moreover, the complete rejection of any kind of ideological (left-right) label also clearly illustrated its distance from the traditional parties. Its post-ideological nature also emerged in the political press releases periodically posted on its blog ('Right and left do not exist')[5] or in Grillo's characterization of the Movement as one 'of ideas, not of ideologies'.[6] We will test whether Grillo's electoral success was rooted in this lack of ideological definition.

Data and methods

The Goodman model

To empirically assess the composition of the *M5S* electorate, we estimate the flows of vote between the 2008 and the 2013 general elections by applying an ecological inference method to the entire Italian voting population. Although researchers studying voting behaviour often rely on electoral surveys, the use of this source of individual-level data poses numerous problems. First of all, reported turnout rates are usually much higher in survey samples than in reality because of problems of representativeness of the sample and respondents' misreporting (Selb and Munzert, 2013; Russo, 2014). By employing the entire population this problem is fully overcome and any issue linked to incompleteness or selection of the data is excluded.

A second limitation of surveys is that in some contexts individuals prefer to conceal their true preferences from the interviewer if they do not share a particular standpoint or opinion that dominates the public sphere. Several instances of this type of spiral of silence process have been identified in the literature (Noelle-Neumann, 1974). Breen (2000), for example, has analysed the tendency of surveys to underestimate the vote for extreme parties. This seems to be particularly problematic in Italy in 2013, where the pre-electoral polls underestimated the result of the *M5S* by about 10 percentage points whilst overestimating the performance of the *PD* and Monti's coalition by about 5 percentage points each (Hanretty, 2013).

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[5] http://www.beppegrillo.it/eng/2008/04/political_press_release_number_9.html
[6] http://www.theguardian.com/world/2013/feb/11/beppe-grillo-italy-general-election

If these problems seriously undermine the estimates of pre-elections polls, we cannot exclude that post-electoral polls also suffer from the same limitations (even if the weighting procedures might be *easier* to implement in the latter).

In order to obtain an estimate based on the entire voting population we will use the Goodman (1953) model. While other studies employ a different technique (Ricolfi, 1993; De Sio, 2008), the Goodman model continues to be the preferred one to estimate flows of votes in Italy (Schadee and Corbetta, 1984; Agnew, 1996; De Sio, 2008). Part of the reason for this success lies in the fact of producing very similar results to the King (1997) model (De Sio, 2008). This is not surprising since the King model is simply the Goodman regression approach using the Duncan and Davis (1953) deterministic bounds to inform the results (Grofman and Barreto, 2009).

The Goodman model assumes that the population of one electoral district can be classified by using two variables: the variable Y (election t_1), which has K categories (the parties at election t_1), and the variable X (election t_0), which has J categories (the parties at election t_0). Subsequently, Y_k is the percentage of the population that belongs to each of the K categories of variable Y, and X_j is the percentage of the population that belongs to each of the J categories of variable X. Following these specifications, one can assume the percentages of the population to be positive, and to be smaller than the population itself.

For each electoral division of the sample (or the population if all polling stations are used) the equation can be represented by the following expression:

$$Y_k = b_1 X_1 + b_2 X_2 + b_3 X_3 + \ldots + b_j X_j + \epsilon$$

In the Goodman model, independent and dependent variables represent percentages of the population, and the regression coefficients correspond to these percentages. Therefore, it is not possible for coefficients to have negative values or values >1. If such unacceptable values do appear, it is necessary to re-adjust them by using an iterative algorithm in order to obtain coefficient estimates that are between 0 and 1. Any such re-adjustment of the coefficient estimates has to be as minimal as possible. The re-distributed value (VR) measures the size of such readjustments (Schadee and Corbetta, 1984). The VR is calculated by taking the differences of the coefficients' values before and after the re-adjustment and adding them up (Schadee and Corbetta, 1984: 87). As a rule of thumb, if the VR coefficient is <0.15 (i.e. 15% if the population is expressed in percentages), the flow of votes estimates can be considered reliable. The VR value of the estimates presented in this article fall overall speaking within the reliability interval, with very minor exceeding values in some of the specified geographical areas [i.e. North-West (15.66%) and Red zone (15.36%)].

Geographical areas

There are several ways of dividing the Italian territory into electoral areas (see, among others, Galli and Capecchi, 1968; Barbagli and Corbetta, 1980;

Figure 1   Four geopolitical areas.

Corbetta and Parisi, 1984). The partitions differ in terms of the number of zones, the presence or absence of territorial continuity constraints or the indivisibility of the regions (Cartocci, 1987). Despite these specificities, Diamanti (2003) has observed that the various propositions can be traced back in a schematic way to a model with four zones (see Figure 1):

1. North-West: Piemonte, Liguria;
2. North-East: Lombardia, Veneto, Friuli Venezia Giulia, Trentino Alto-Adige;
3. Centre (Red zone): Emilia-Romagna, Toscana, Umbria, Marche;
4. South and Islands: Lazio, Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna.

Despite the profound political changes (in terms of supply, demand, and electoral laws) registered during the 1980s and 1990s, the electoral orientations in these zones have fundamentally remained constant (Shin and Agnew, 2007), and each of them is still characterized by a specific competition dynamic (Diamanti, 2003). The North-West is characterized by high levels of electoral competitiveness, which makes it impossible to identify a predominant party. By contrast, the electorate of the North-East has always presented a clear conservative profile, with victories of the *Democrazia Cristiana* first and the *LN* later on. The Centre is traditionally the stronghold of the Italian left, or rather what used to be the Italian Communist Party and now is, after several transformations, the Democratic Party. Finally, the South and the islands are less stable in terms of voting patterns, being, thus, the electoral behaviour in this part of the country characterized by a high prevalence of vote switching (Musella, 2000; Diamanti, 2003).

When looking at the elections of the Second Republic, the division into these four zones is still relevant from a political point of view (Corbetta and Piretti, 2009). It is, therefore, clear that in Italy the geographical context remains an important variable in explaining vote choice in the sense that it 'incorporates homogenous traditional political tendencies that are embedded in macro-areas within the country' (Schadee *et al.*, 2010). Therefore, besides the national level of the analysis, we provide a more detailed picture by looking at the flow of votes in each of these four geopolitical areas.

Data

The data we employed are raw numbers of votes for the 2008 and 2013 Chamber of Deputies elections at the lowest available level of aggregation, which is the polling station.[7] Unlike other multi-party systems, in Italy it is possible to obtain data at the polling station level, which is required when using the Goodman model. There are slightly >60,000 polling stations in Italy, and they include between 500 and 1200 voters. Two out of the 27 electoral districts into which Italy is divided (i.e. Valle d'Aosta and Trentino Alto-Adige) were excluded from the analyses because they have party landscapes that are not comparable with the rest of the country. In order to be included in our final data set, polling stations need to have a between-election difference in the register (i.e. the list of those eligible to vote in a particular polling station) of no more than 10%. This way we avoid potential problems caused by voters' lists with excessive changes such as those in hospitals.[8] As a result of the application of these criteria, data from 89.35% of the total number of polling stations (i.e. 54,359 out of 60,602) were used in the analyses.

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[7] We exclude from the analysis the Italians who voted abroad. This is also due to the fact that part of the analysis is geographical.

[8] Patients in hospitals are allowed to vote there in special polling stations. However, as the population in hospitals changes almost completely from one election to another (making the estimates completely unreliable), these polling stations are excluded from the analysis.

Table 2. Polling stations per area

Area	N	%
North-East	8981	16.52
North-West	14,658	26.97
Red zone	9210	16.94
South and islands	21,510	39.57
Total	54,359	100

Table 2 shows the amount of polling stations per geographical area. The flows of vote estimates for each of the four areas were weighted by the number of members of the polling stations. The national flows of vote estimates were obtained by calculating an average of the estimates of the four areas weighted by the number of polling stations in each area.

Before proceeding with the interpretation of the results, a final clarification is needed about the way non-voters were treated. Since this article deals with the concept 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 casting a vote for what is a 'not vote' choice on the election ballot (i.e. blank and spoiled votes). Consequently, given the inclusion in the analysis of the blank and spoiled ballot papers, we describe something that would be more correctly defined as no-vote rather than abstention.

Results and discussion: who are the *M5S* voters?

In this section, we will present the swing vote estimates first at the national and then at the subnational level. We will primarily focus on the composition of the *M5S* electorate, that is, from which parties and ideological bloc this new political actor obtained its voters.

Flows of vote: the national-level dynamics

Figure 2 presents the first set of results looking at the electoral origin of the *M5S* vote. This figure has to be interpreted as follows: when considering the whole sum of votes obtained by the *M5S*, different shares of this amount come from each of the 2008 (groups of) parties.[9] By looking at Figure 2, the first thing we see is that *M5S* actually gains about the same amount of votes from both the left and the right. In fact, Figure 2 shows that 40.06% of the *M5S* votes come from left-wing parties (i.e. the sum of *Italia dei Valori*, *PD*, the extreme left and other left-wing options)

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[9] The small parties in Figure 2 are grouped in a different way than in Table 1 in order to provide a clearer picture of the ideological origin of the swing voters.

Figure 2 *MoVimento 5 Stelle* (*M5S*)'s incoming voters between 2008 and 2013 general elections (on the total of votes received by *M5S*).

while 46.46% come from right-wing parties (i.e. the sum of *LN*, *PdL*, the extreme right and other right-wing options). The proportion of transfers is particularly high in the case of the two main parties, *PD* and *PdL*. In overall terms, 6 out of 10 *M5S* voters have shifted their support from one of these two parties in 2008 to Beppe Grillo's Movement in 2013.

In Table 3, it is fundamental to remember that the whole population that is eligible to vote, rather than only the valid votes (as in Figure 2), is considered. In order to correctly read Table 3, consider first that the total of the whole table is 100%. The matrix gives you the percentage of eligible voters that is in a particular situation. For example, 5.52% of the eligible voters voted for *PdL* in 2008 and *M5S* in 2013, while 5.69% voted for *PD* in 2008 and shifted to Grillo's party in 2013. After adding up all these movements, we can see that 17.7% of the eligible Italians voted for the *M5S* in the 2013 elections. Table 3 also shows an interesting element with regard to the mobilization of former non-voters. Although, as indicated in Figure 3, the votes coming from former non-voters make up only 13.49% of the total votes of *M5S* (2.33% of eligible voters in Table 3), when looking at Table 3 it is possible to observe that *M5S* is the party that mobilized the highest amount of former non-voters. None of the other parties reach even one-third of that amount.

Table 3. Total voters' transfers between 2008 and 2013 general elections

Parties 2013	PdL	LN & MpA	UDC	Extreme right	Other right	PD	IdV	Extreme left	Other left	No-vote
						Parties 2008				
PdL	12.32	1.03	0.07	0.09	0.04		0.06	0.06	0.04	0.83
Lega Nord	0.23	2.15	0.01			0.02	0.02	0.04		
Extreme right	0.90	0.03	0.02	0.21	0.02	0.05	0.10	0.01	0.01	0.24
Other right	1.27	0.18	0.14	0.06	0.09	0.19	0.09		0.05	0.15
M5S	5.69	0.92	0.36	1.35	0.06	4.84	1.16	0.82	0.18	2.33
Con Monti	1.73	0.22	1.61	0.05	0.23	1.73	0.82	0.00	0.11	0.61
PD	1.22	0.22	0.05	0.09	0.04	14.85	0.49	0.11	0.15	0.57
Extreme left	0.14				0.02	1.10	0.34	0.43	0.03	0.23
Other left	0.16	0.03	0.03	0.02	0.01	0.75	0.22	0.46	0.03	0.47
Fare	0.34			0.01	0.03	0.17	0.07			
Other	0.03					0.01				
No-vote	3.25	0.62	1.59	0.09	0.16	1.97		0.89	0.54	13.45

PdL = *Popolo della Libertà*; LN = *Lega Nord*; MpA = *Movimento per le autonomie*; UDC = *Unione di Centro*; PD = *Partito Democratico*; IdV = *Italia dei Valori*; M5S = *MoVimento 5 Stelle*.
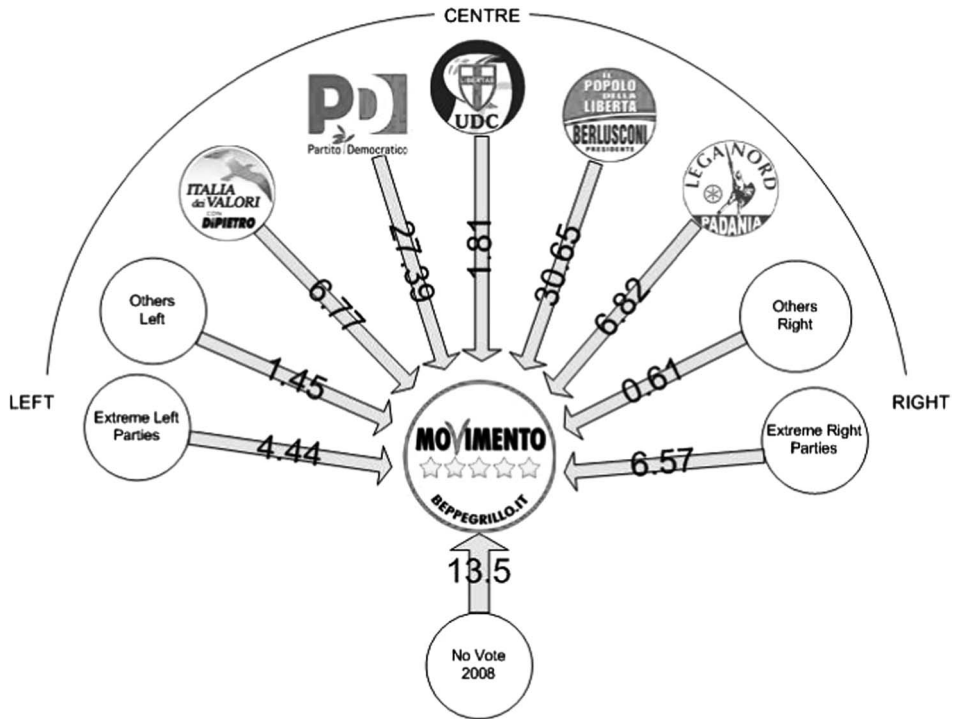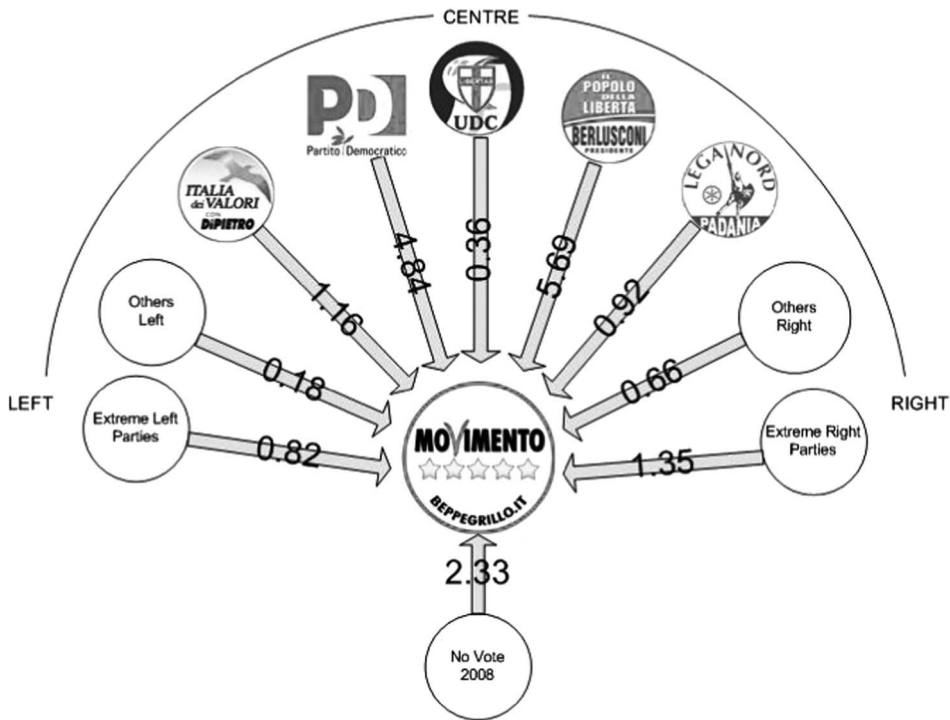

Figure 3 *MoVimento 5 Stelle* (*M5S*)'s incoming voters between 2008 and 2013 general elections (on the total voters' transfers).

Table 4. *MoVimento 5 Stelle* (*M5S*)'s incoming voters between 2008 and 2013 general elections for each geopolitical area – focus on parties (%)

Area	PdL	LN & MpA	UDC	Extreme right	Other right	PD	IdV	Extreme left	Other left	No-vote	Total
North-East	24.88	7.99	4.28	9.60	0.00	21.14	8.52	10.51	1.47	11.61	100
North-West	16.06	15.64	0.08	4.50	2.26	27.47	9.05	0.88	4.25	19.81	100
Red zone	32.02	1.27	1.69	11.96	0.00	28.30	6.39	1.86	0.37	16.14	100
South and islands	42.41	2.70	2.01	4.40	0.00	29.56	4.64	5.44	0.00	8.84	100

PdL = *Popolo della Libertà*; LN = *Lega Nord*; MpA = *Movimento per le autonomie*; UDC = *Unione di Centro*; PD = *Partito Democratico*; IdV = *Italia dei Valori*.

These findings confirm the main trends found by the survey estimates (De Sio and Schadee, 2013) and by previous aggregate-level analyses (De Sio and Paparo, 2014).

Flows of vote: the subnational-level dynamics

Analogously to Figure 2, Table 4 presents the set of results looking at the electoral origin of the *M5S* vote per geopolitical area (to check the total vote transfers between 2008 and 2013 for each geopolitical area see the Appendix). In order to better highlight the dynamics concerning the swings from each ideological bloc, Table 5 summarizes the amount of swing voters coming from the right and left blocs.

Table 4 highlights a few interesting dynamics. First of all, swing voters are coming from the main parties, *PdL* and *PD*, in different proportions across areas. The *PdL* seems to have the largest variation, as it goes from the 16.06% of the North-West to the 42.41% of the South and the islands. However, when looking at the *LN* results, this pattern is easily explained, as it appears clear that the *LN* balances out the lower migration of *PdL* voters to the *M5S* in the North-West. A similar outcome is observable in the North-East. The losses of the *PD* towards the *M5S* show less variation, but also in this case it is important to notice that its main ally, *Italia dei Valori*, has a steadier and equally distributed loss towards the *M5S* across areas.

A remarkable dynamic that involves both *PdL* and *PD* is that they suffer the most severe losses in the South and the islands. This is also the area in which *M5S* is able to mobilize the smallest amount of previous non-voters – this is not surprising considering that historically this is the geopolitical area with the highest abstention rates (Putnam, 1993; Tuorto, 2006). It is also interesting to notice that the extreme parties, both left and right, have a particularly high amount of losses in two out of the four areas. The extreme right-wing parties have a more homogenous dynamic, but still the highest losses in favour of the *M5S* are located in the North-East, and, quite unsurprisingly, in the Red zone. The extreme left-wing parties suffer the highest losses in the North-East and in the South and islands.

Table 5. *MoVimento 5 Stelle*'s incoming voters between 2008 and 2013 general elections for each geopolitical area – focus on ideological bloc (%)

Area	Right	Left	ΔRight-left
North-East	46.75	41.63	5.12
North-West	38.54	41.65	–3.11
Red zone	46.94	36.92	10.02
South and islands	51.52	39.64	11.88

Table 5 illustrates the overall swing from the right and the left-wing blocs in favour of the *M5S*. If at the national level the difference between the left-wing and the right-wing blocs was 40.05% from left-wing parties and 46.46% from right-wing parties, the picture at the subnational level reveals a much more nuanced situation. Both areas in the North have a less dramatic difference in terms of left-wing and right-wing swing voters, whilst transfers in the Red zone and in the South and islands are noticeably higher for the right-wing bloc. Despite these differences, the overall dynamic of switching towards the *M5S* can all in all be considered quite homogenous across areas.

Conclusion

Using a newly compiled data set comprising all the actual data from the 2008 and 2013 parliamentary elections and composed of the four traditional geopolitical Italian areas, this article shows that the flows of votes from the two main centre-right and centre-left parties and the mobilization of previous non-voters are key in understanding the success of the *M5S*. Our analysis largely confirms the findings of other studies that addressed the same topic drawing on survey data. However, it also highlights some new features that emerge at the regional level in spite of an overall homogeneity across areas. In fact, in the North-East and North-West the swing voters are switching towards the *M5S* in a quite balanced way, while in the Red zone and in the South and the islands the swing voters are significantly switching more from the right.

Although the more evident limit of this method lies in the impossibility to understand the reasons for the swing, at least two relevant sparks for future research emerge. The first one is linked to Hirschman's (1970) theory on exit, voice, and loyalty. Within this framework, a vote for a party other than the one usually supported that involved a definitive abandonment of a political option could be given an exit interpretation, whereas it would be understood as a voice option if it entailed a mere signal of temporary dissatisfaction (Weber, 2011; Passarelli and Tuorto, 2015). While it is hardly new to claim that the support of the two main centre-left and centre-right parties for Monti's technical government and the bad

economic context disappointed large amounts of *PdL* and *PD* voters, it is still not fully understood which the long-term consequences of these vote transfers were. For example, even admitting difficulties to compare elections across levels of government, it is good to know that the *M5S* vote suffered important drops in the 2014 European Parliament and the 2015 regional elections (of about 4 and 9% compared with the 2013 parliamentary election, respectively) but won the 2016 mayoral elections in Rome and Turin.

Second, the results of this article also suggest that a new cleavage has emerged in Italian politics. De Sio and Schadee (2013) show evidence of a two-dimensional political space in Italy (left-right and anti-pro establishment), and find that the least ideological supporters of mainstream parties were more likely to defect from their previous party. Hence, an untested dynamic that seems plausible is the combination of a lack of ideological definition of the *M5S* and the continued persistence of the left/right dimension. In fact, Bartolini and Mair (1990) demonstrated that most volatile voters did not change party families and remained loyal to their ideological bloc in Europe between 1885 and 1985. Likewise, a high percentage of Italian voters was faithful to one coalition (centre-left or centre-right) in the 1990s (Natale, 2000), and less than 10% of voters switched blocs between 2006 and 2008 (Russo, 2014). Grillo's party represented the first non-ideological viable option in the electoral history of Italy, and whether or not this provoked the demise of ideological voting in that country merits further research.

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Data

The replication data set is available at https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/20IR0P.

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Appendix

Table A1. North-East

| Parties 2013 | Parties 2008 | | | | | | | | | |
	PdL	LN & MpA	UDC	Extreme right	Other right	PD	IdV	Extreme left	Other left	No-vote
PdL	11.47	0.86	0.01	0.12						1.19
Lega Nord		2.47			0.02		0.03			0.28
Extreme right	0.20	0.03	0.03	0.17	0.00	0.04		0.04	0.03	0.13
Other right	1.05	0.25	0.18	0.14	0.03		0.09			0.20
M5S	4.91	1.58	0.85	1.89		4.17	1.68	2.08	0.29	2.29
Con Monti	2.65	0.44	2.46	0.04	0.36	0.97	0.99			0.24
PD		0.31				22.02	0.12			1.20
Extreme left	0.05				0.06	0.88	0.50	0.36		0.40
Other left	0.11		0.03	0.03		0.76	0.23	0.42	0.04	0.27
Fare	0.60	0.02		0.02	0.05	0.23	0.07			
No-vote	4.16	2.21	0.24		0.17	2.31		0.67	0.84	13.67

PdL = *Popolo della Libertà*; LN = *Lega Nord*; MpA = *Movimento per le autonomie*; UDC = *Unione di Centro*; PD = *Partito Democratico*; IdV = *Italia dei Valori*; M5S = *MoVimento 5 Stelle*.

Table A2. North-West

Parties 2013	PdL	LN & MpA	UDC	Extreme right	Other right	PD	IdV	Extreme left	Other left	No-vote
					Parties 2008					
PdL	10.16	2.71			0.15		0.05		0.04	0.40
Lega Nord	0.70	6.40					0.06	0.15		0.00
Extreme right	0.12	0.12	0.03	0.12	0.03				0.01	0.09
Other right	0.40	0.53	0.17		0.34	0.29			0.01	0.00
M5S	2.53	2.47	0.01	0.71	0.36	4.33	1.43	0.14	0.67	3.13
Con Monti	2.72	0.85	1.22		0.19	1.82	0.60		0.02	0.64
PD	0.95	1.00			0.09	12.60	0.85	0.36	0.21	0.58
Extreme left	0.29				0.02	0.73	0.16	0.19		0.16
Other left	0.19				0.02	0.47	0.10	0.31		0.15
Fare	0.66	0.20			0.07	0.30	0.12			
No-vote	7.16	3.11	2.42	1.16		2.67		1.91		13.87

PdL = *Popolo della Libertà*; LN = *Lega Nord*; *Movimento per le autonomie*; UDC = *Unione di Centro*; PD = *Partito Democratico*; IdV = *Italia dei Valori*; M5S = *MoVimento 5 Stelle.*

Table A3. Red zone

Parties 2013	PdL	LN & MpA	UDC	Extreme right	Other right	PD	IdV	Extreme left	Other left	No-vote
					Parties 2008					
PdL	11.60	0.13		0.43				0.00	0.11	1.18
Lega Nord	0.04	0.09	0.02		0.01	0.15			0.01	
Extreme right	2.53			0.06	0.03		0.37			0.75
Others right	1.08		0.15	0.14	0.02	0.28	0.02		0.08	0.07
M5S	6.22	0.25	0.33	2.32		5.50	1.24	0.36	0.07	3.14
Con Monti	1.72	0.02	1.30		0.16	2.27	0.51		0.05	0.39
PD					0.10	20.01	0.25		0.19	1.04
Extreme left		0.00			0.04	1.17	0.44	0.47		0.52
Others left	0.20			0.05	0.01	0.56	0.28	0.57	0.01	0.53
Fare	0.33	0.02	0.01		0.05	0.16	0.07			
Other	0.02			0.01						0.01
No-vote	5.01	0.51	1.80		0.22	3.05		2.52	0.70	13.93

PdL = *Popolo della Libertà*; LN = *Lega Nord*; *Movimento per le autonomie*; UDC = *Unione di Centro*; PD = *Partito Democratico*; IdV = *Italia dei Valori*; M5S = *MoVimento 5 Stelle.*

Table A4. South and islands

Parties 2013	Parties 2008									
	PdL	LN & MpA	UDC	Extreme right	Other right	PD	IdV	Extreme left	Other left	No-vote
PdL	14.46	0.35	0.16				0.12	0.16	0.02	0.82
Lega Nord	0.09		0.03							
Extreme right	0.41		0.03	0.37	0.01	0.10		0.02	0.02	
Other right	1.86	0.13	0.10	0.00	0.06	0.17	0.17		0.06	0.25
M5S	6.99	0.44	0.33	0.73		4.87	0.77	0.90		1.46
Con Monti	0.93		1.64	0.12	0.25	1.65	1.06	0.00	0.22	0.90
PD	2.68		0.13	0.23		9.30	0.64	0.13	0.15	
Extreme left	0.21					1.29	0.28	0.53	0.07	
Other left	0.14	0.07	0.06			1.00	0.23	0.47	0.06	0.65
Fare	0.09			0.02		0.09	0.05			
Other	0.07					0.03		0.00	0.01	
No-vote	4.81	1.23	2.78	0.22	0.26	2.90		0.52	0.89	24.49

PdL = *Popolo della Libertà*; LN = *Lega Nord*; *Movimento per le autonomie*; UDC = *Unione di Centro*; PD = *Partito Democratico*; IdV = *Italia dei Valori*; M5S = *MoVimento 5 Stelle*.