EXPLAINING THE ANTI-IMMIGRANT SENTIMENT THROUGH A SPATIAL ANALYSIS: A STUDY OF THE 2019 EUROPEAN ELECTIONS IN ITALY

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ABSTRACT

Does the settling of foreigners cause a rise in anti-immigrant sentiment due to resource competition? Or do direct interactions lead to more respectful relations? And what if one also considers the settlement of foreigners in neighbouring municipalities? Applying an instrumental variable approach to variables collected at the Italian municipality level and including neighbouring areas, this paper aims to answer these questions by considering the vote for the Lega party in 2019 European parliamentary election as a proxy for the anti-immigration sentiment. Our results point out that, once controlling for most socio-economic variables and remoteness, a larger presence of foreigners within the municipality reduces the vote for the Lega. In contrast, the presence of immigrants in the neighbouring municipalities does not show a significant effect.

Key words: immigration; right extremist vote; segregation; voting behaviour; Italy

INTRODUCTION

In May 2019, the new European Parliament was elected. The election went to the heads of far-right leaders across Europe, whose parties were the most voted-for in Austria, France, Hungary, Italy, Poland, and the UK. In Italy, the most voted party was the Italian Lega (League), a radical right party whose leader, the anti-immigration politician Matteo Salvini, was Minister of the Interior at the time.

Like other right-wing Western EU parties, Lega has experienced an increasing electoral success due to a change in its electoral base and a new political agenda. What characterized the party in 2019 was not only a growing hostility towards the policies and institutions of the European Union (EU) (Brunazzo & Gilbert 2017; Albertazzi *et al.* 2018) but also an anti-immigration rhetoric, depicting migrants as a major driver of social insecurity (Brunazzo & Gilbert 2017).

Such anti-immigration sentiment is not new in the EU. Since the 1990s, anti-establishment and anti-migrant parties have dramatically increased their electoral success throughout the EU (De Vos & Deurloo 1999; Kessler & Freeman 2005a), especially following the 2008 economic crisis (Nicoli 2017). Although there is no consensus on the defining features of far-right parties (Fennema 1997), all of them emphasize the immigration issue (Arregui & Creighton 2018). Rydgren and Ruth (2013) suggest that the anti-immigration attitude represents a common driver for the radical right-wing vote.

Given this electoral success, it might be worth exploring the main drivers fuelling such an anti-immigration attitude. Previous studies have stressed the role of both individual and geographical drivers (see Cushing & Poot 2004, for an in-depth literature review), while the economic literature has pointed out that these parties mostly leverage natives' fears of migration inflows (Lubbers & Scheepers 2002; Norris 2005; Rydgren 2008; Arzheimer 2009).

Here, it is impossible to test any individual voting mechanisms due to a lack of individual-level data. Instead, this work aims to analyse macro-level drivers of right-wing support in Italy, focusing on the role of foreigner settlement (at both the municipality level and across neighbouring areas). With regard to this latter issue, several hypotheses are proposed: the 'ethnic competition hypothesis' or 'theory of economic interest' (see Olzak 1992), the 'contact hypothesis' (Allport *et al.* 1954) and the 'halo effect' (Kestilä & Söderlund 2007; Bowyer 2008; Rydgren & Ruth 2013).

The present work contributes to this debate, considering the vote for Lega in the 2019 EU elections at the municipality level and admitting foreigners' settlement as a driver for it. The variables of interest are instrumented to avoid possible reverse causality. To test the hypotheses mentioned above (and in particular the possible occurrence of the halo effect), the analysis also considers foreigner settlement across neighbouring municipalities (following a methodology similar to the one adopted by Rydgren & Ruth 2013, in Sweden). To the best of our knowledge, none of the previous papers studying those theories has directly compared different theories using a spatial analysis approach. Certainly, such an application to the Italian case is rather new; so far, only a few economic studies have been conducted on this topic in the country (see, for instance, Barone *et al.* 2016; Devillanova 2020).

The remainder of the paper is organized as follows. Section Background provides some background, discussing the main theories that explain the nexus between migration and electoral support for extreme right parties. Section Data and Methods describes data and the adopted methodology. Section Results shows the results, while Section Discussion discusses these in the light of their policy implications. Section Conclusions offers some concluding remarks.

BACKGROUND

The Lega party: from a regionalist party to a right-wing nationalist one – The electoral success of Lega in 2019 can be explained by a deep change in its political agenda. Since 2013, Lega has shifted away from its previous political identity. In the 1990s, it was a regionalist populist party with a typical ethno-regionalist manifesto (Mancosu & Ladini 2020), its constituency being concentrated in Italian northern and more industrialized regions (De Winter & Tursan 2003; Brunazzo & Gilbert 2017; Albertazzi *et al.* 2018). Since the success of Beppe Grillo's party (the Five Star Movement, M5S) in 2013, the party has turned into a right-wing national party, more similar to the Front National in France (Mancosu & Ladini 2020). Since 2013, the party's rhetoric has progressively placed greater emphasis on hostility towards EU policies and institutions (Musella 2015; Brunazzo & Gilbert 2017; Albertazzi *et al.* 2018) as well as towards migrants, depicted as a cause of social insecurity (Brunazzo & Gilbert 2017). Thus, Lega began attracting supporters from across the political spectrum (especially the far-right side) and from every Italian region (Brunazzo & Gilbert 2017). The assumption about the relevance of the immigration issue is confirmed by Roccato *et al.* (2020). They analyse the vote of Five Star Movement and Lega at the 2019 EU election through a computer-assisted web interview. They focus on what they call the 'three main roads along which citizens develop populist orientations': perceived economic threat, perceived cultural threat and dissatisfaction with representative democracy. In particular, Lega voters seem only to perceive the cultural threat as fuelled by migration flows.

Geography of discontent and competition over scarce resources: extreme right vote and foreigner settlement – The literature on the link between foreigner settlement and the consensus for extreme right parties

is broad. The sociological and political literature proposes in-depth theories, mostly implemented through descriptive analysis and disregarding causal relationships. Conversely, the economic theory often focuses on inverse causality issues, neglecting the debate on the different theories. In both strands of research, results are rather country-specific. However, a common finding is that both individual/social characteristics and contextual/geographical variables matter in explaining the willingness to vote for extreme right parties. For example, Antonucci *et al.* (2021) compare the 2017 elections in France and the Netherlands and, using a panel of voters collected during previous elections, suggest that individual precarity (expressed as both 'precarity at work' and 'precarity of tenure') can explain the support for more radical parties, and the moving away from establishment party support.

The so-called 'geographers of discontent' (see the insightful work of Dijkstra *et al.* 2019) address both groups of factors (i.e. both individual/social and contextual/geographical ones) in explaining the anti-establishment vote: these voters are generally older, and working-class citizens, with low income and low educational attainment (Goodwin & Heath 2016), and they mostly live in the 'places that do not matter', namely rural and remote areas that have been facing de-industrialization, job loss and a declining per capita income (Los *et al.* 2017; Iammarino *et al.* 2018; Martin *et al.* 2018; Rodríguez-Pose 2018; Dijkstra *et al.* 2019). There, the competition over scarce resources (in kind and cash) has become harsher and harsher, and the ballot box represents a way to rebel against both EU integration and migration flows (Rodríguez-Pose 2018).

In weak territorial contexts, migrant inflows act as a catalyst to channel natives' fears, which are both economic (Guiso *et al.* 2017) and linked to a supposed dilution of local or national identity (Hobolt 2016; Rodrik 2018). For this reason, rural and low population density areas have experienced a rise in the populist vote (Gordon 2018; Martin *et al.* 2018), with those parties easily capitalizing on natives' fears of migration flows (Lubbers *et al.* 2002; Lubbers & Scheepers 2002; Norris 2005; Rydgren 2008; Arzheimer 2009). People living in those areas perceive migrants and ethnic minorities as a

threat (Mamonova & Franquesa 2019) due to several reasons (Rydgren 2003, 2007): (i) they represent a threat to ethno-national identity; (ii) they fuel crime and social insecurity; (iii) they swell the unemployment rate, competing with natives on the local labour market; and (iv) they abuse the generosity of the EU welfare state.

In this regard, the 'ethnic competition hypothesis' or 'theory of economic interest' (Olzak 1992) may explain—on an economic basis—the political success of extreme right political parties. The willingness to vote for these parties is higher the larger the share of foreigners living (and working) in a territory. This is empirically observed by several authors, such as Arzheimer and Carter (2006), Kessler and Freeman (2005b) and De Vos and Deurloo (1999). Using an instrumental variable (IV) approach on a panel, roughly similar conclusions are obtained by Mendez and Cutillas (2014) for Spain, Otto and Steinhardt (2014) for Germany and Halla *et al.* (2017) for Austria. Considering Italian national political elections in 2001, 2006 and 2008, Barone *et al.* (2016) find a positive effect of immigration flow on votes for the broad centre-right coalition (also encompassing non-extreme right parties). Focusing on the UK elections, Bowyer (2008) observes that in the 2002 and 2003 local elections in England, the vote for the British National Party was positively related to immigrant presence at the district level (although ethnic diversity seems to reduce it). Levi *et al.* (2020) consider the share of votes for the UK Independence Party (in 2004–2014) and claim that migrant inflows have a positive effect, although it is a short-run effect.

As in the case of the 'geography of discontent' (Rodríguez-Pose 2018), also the ethnic competition hypothesis is grounded on the idea of scarce resources over which natives and foreigners compete (Rydgren 2007; Toshkov & Kortenska 2015). This competition occurs both in the labour market and with regard to welfare, and it is tougher for those who have been facing long-lasting socio-economic marginalization (Rydgren & Ruth 2013). For instance, in considering labour-market competition, Golder (2003) compares 165 national elections in 19 countries, finding that

immigration has a positive effect on populist parties irrespective of the unemployment level but that the unemployment rate matters when immigration is high. In addition, Kestilä and Söderlund (2007) show that socioeconomic conditions, immigration rate and unemployment rate have an impact on votes for the Norwegian right-wing Progress Party. Conversely, Otto and Steinhardt (2014) claim that welfare state considerations are also important in shaping individual attitudes towards immigration, analysing the districts of Hamburg in the period from 1987 to 1998.

Alternative approaches: from contact theory to the halo effect – Despite the large number of studies confirming the ethnic competition theory, this approach has been questioned. Adopting a natural experiment, Steinmayr (2016) identifies the causal effect of the arrival of refugees in a neighbourhood on support for the far-right Freedom Party of Austria (FPOE). Analysing the 2015 national election in Austria, he finds that hosting refugees in the community decreases FPOE support. Colantone and Stanig (2018), who address the 'Leave' option in the Brexit referendum, observe that this is due to the spread of the 'losers' of economic globalization rather than by immigrant flows.

Under some circumstances, it seems that foreigner settlement is not the only driver of support for extreme right and anti-immigration parties. For instance, Lubbers and Scheepers' (2002) region-level analysis of electoral consent for the Front National suggests that people in regions with fewer immigrants may perceive the influx of immigrants into overall France as a greater threat than people living in regions with higher levels of immigrants do. Similarly, Stockemer (2016) concludes that the real driver of the vote for the extreme right is the perception and not the real number of immigrants. Lastly, referring to the electoral success of the Vlaams Blok in Belgium, Coffé et al. (2007) claim that it is only the presence of foreigners from, for example, Turkey and the Maghreb that drives the vote to extreme right parties. These studies find theoretical justification in the so-called 'contact hypothesis': direct interactions between foreigners and the native population may,

in fact, weaken natives' fears of immigrants, stimulating more respectful relations (Allport et al. 1954; Husbands 2002), hence lower support for extreme right parties. Some of these studies have applied this theory to the EU context (Brown & Lopez 2001; Weldon 2006).

However, a combination of the two aforementioned hypotheses is of interest under a territorial framework. The 'halo effect' theory suggests that an anti-immigration sentiment still fuels the vote for extreme right parties; however, this feeling is the highest in those areas that are close to the ones hosting a large proportion of immigrants and not really within them (Kestilä & Söderlund 2007; Bowyer 2008). Two reasons might be behind this hypothesis (Rydgren & Ruth 2013): (i) the neighbourhoods bordering immigrant-dense areas are often lower-middle-class districts (i.e. places typically included into the 'geography of discontent'); (ii) people living in immigrant-dense neighbourhoods are still lower-middle-class, but they benefit from interactions with immigrants on a friendlier basis, according to the contact theory hypothesis of Allport et al. (1954). However, it is worth noting that this effect can be appreciated more at the district/neighbourhood level rather than at the municipality (i.e. city) level.

The territorial framework adopted for the analysis – This work considers the vote for Lega from a territorial perspective. Dealing with municipality-level data, the hypothesis of the geography of discontent approach is firstly considered. Besides foreigner settlement, the vote for extreme right parties is driven by territorial features. Anti-immigration sentiment mainly occurs in rural and remote areas, where the presence of foreigners is actually low but where competition over scarce resources is harsher.

In addition to the ethnic competition effect, both contact theory and halo theory effects are admitted. In this regard, the presence of foreigners both at local level (i.e. in the same municipality) and across neighbouring municipalities is included in the analysis, according to the traditional spatial econometric approach (Anselin 1988). Nevertheless, contrasting with Rydgren and Ruth (2013) and De Vos and Deurloo (1999),

we do not refer to district-level data but rather to the more aggregated municipality-level data (hence, with different implications for the analysis).

First, every single municipality is considered. There, two opposite effects occur. On the one hand, a larger presence of foreigners is expected to fuel competition over scarce resources (labour market and welfare services): in Italy, the municipality's local government provides each eligible citizen (both natives and foreigners) with major services such as council houses, contributions for accommodation, kindergarten and income transfers (Saraceno 2013). On the other hand, the contact hypothesis also operates, eventually leading to more positive attitudes of natives towards foreigners.

Second, neighbouring space is considered. Beyond each municipality's borders, the two effects mentioned above still operate, although being weaker. Across the set of neighbouring municipalities, competition between natives and foreigners operates in the labour market but not with regard to welfare services. Similarly, contact theory shows weaker features: for example, people might attend their upper secondary school or university courses in different (neighbouring) municipalities, while commuting patterns and relationship networks cover broader areas. However, when considering the neighbouring space, the halo effect is expected to work, positively affecting the vote for Lega.

DATA AND METHODS

Data – This work considers the vote for Lega in 2019 EU election as a proxy of anti-immigrant far-right voting, as it was the most voted-for party in Italy[1] and the only one belonging to the 'Identity and Democracy' EU Parliament group. This analysis relies on observational data available at the municipality level and retrieved from the Italian Ministry of the Interior website.

To analyse possible drivers explaining this vote, the analysis firstly considers the role played by foreigner settlement. To do this, the share of foreigners out of the total population at the municipality level (IMM) is considered. However, unlike previous studies

in this field, the share of foreigners in neighbouring municipalities is also considered, by taking the spatial lag of the share of foreigners (IMM_LAG), according to an n x n row-standardized spatial weights matrix (**W**),[2] defined according to a queen contiguity matrix.

As a further focus, this analysis considers geographical features, such as the role of 'inner areas', i.e., the most remote and depopulated municipalities in Italy, located away from urban centres providing essential services (Barca *et al.* 2004). Following the framework of the Italian National Strategy for Inner Areas (Barca *et al.* 2004), the model includes a dummy variable (INNER) that distinguishes between inner (i.e. remote) and non-inner areas.

Additional covariates control for those socio-economic features that may explain the share of votes for Lega, following the framework of the 'geography of discontent' (Dijkstra *et al.* 2019).

First, logarithm of population at the municipality level (Log_pop) is considered to control for main differences between urban areas and less-populated municipalities.

Second, the so-called 'holy trinity' of the populist voter (Dijkstra *et al.* 2019, p. 743) is considered: age, income and education. With regard to age, we consider people aged 65 and over, as a share of the total population (Pop_over_65). Quintiles of per capita income (Income) are used by taking the average gross taxable income (as provided by the Ministry of Finance). With regard to education, although the lack of formal educational attainment is usually considered as a key source of the anti-system vote, here the gross enrolment ratio in tertiary education courses (Tertiary_educ) is considered, as this indicator is available at municipality level.

In addition to the covariates mentioned above, the analysis also includes: (i) the share of manufacturing employment in each municipality (Manuf_employment), following the intuition by Rodríguez-Pose (2018) about the role of long-term industrial decline; and (ii) the number of volunteers in not-for-profit associations per inhabitant (Not-for-profit), as a proxy for social capital and admitting social isolation and lack of civic community

as drivers for the vote to radical right parties (see Arendt 1951). Lastly, given the existence of wide regional differences across Italy, each model includes NUTS-2 region fixed effects. For each variable included in the models, Table 1 shows the meaning, the specification and the source of data.

Econometric strategy – The relevance of the determinants affecting the vote for Lega is first analysed through a simple OLS model implemented as follows:

$$Y_{ir} = \alpha + \beta_1 IMM_{ir} + \beta_2 X_{ir} + \beta_4 REG_r + \gamma_r + \xi_{ir}$$

Here, Y_{ir} is the share of the vote for Lega in each municipality (i) in region (r), IMM_{ir} is the share of immigrants on the population resident in the municipality and X_{ir} is the vector of control variables at the municipality level (Log_pop, Pov_over_65, Income, Manuf_employment, Manuf_employment squared, Not_for_profit, Tertiary_educ, Inner). γ_r and ξ_{ir} are error terms at the NUTS-2 region and municipality level. Due to the historical territorial heterogeneity of the consensus for the Lega party, NUTS-2 region fixed effects (REG) are controlled for.

Conducting the above regression, we analyse only the relation between immigrant settlement and Lega votes. As mentioned in the previous sections, this work adopts a spatial analysis model to distinguish the effects deriving from the presence of foreigners at the municipality level (competition over resources

Table 1. *The regressors included in the analysis.*

Name	Meaning	Specification	Source (year)
Dependent variable			
Lega_vote	Votes to the Lega party in the 2019 European vote (%)	%	Ministry of the Interior (2019)
Foreigners			
IMM	Foreigners out of total population	%	ISTAT (2018)
IMM_lag	Foreigners out of total population in neighbouring municipalities (spatial lag)	%	ISTAT (2018)
Inner areas			
INNER	Dummy variable reflecting inner-area Italian municipalities, according to the SNAI classification (A-urban poles, B-intermunicipal poles, C-belt, D-intermediate, E-peripheral, F-ultraperipheral)	Dummy: 0 (A, B, C municip.); 1 (D, E, F municip.)	Own elaboration on Barca *et al.* (2014)
Other socio-economic covariates			
Log_pop	Log of total resident population	log	ISTAT (2018)
Pop_over_65	Population aged 65 and over on the total	%	ISTAT (2018)
Income	Average gross taxable income, by quintile	Ordinal	Ministry of Economy and Finance (2017)
Manuf_employment	Employment in manufacturing in a municipality	%	ISTAT (2016)
Not-for-profit	Number of volunteers in not-for-profit organizations per inhabitant	Ratio	ISTAT (2011)
Tertiary_educ	Gross enrolment ratio (GER) in tertiary education courses: enrolled students as a share of population aged 19–23	Ratio	ISTAT (2017)
NUTS-2 regions controls (REG)	Categorical variable of Italian NUTS-2 regions	21 factors	–

and contact theory) and in the surrounding area (competition over resources, contact theory and halo effect). We therefore add to the previous OLS model the variable IMM_LAG, that is, the share of foreigners on the total population in neighbouring municipalities.

$$Y_{ir} = \alpha + \beta_1 IMM_{ir} + \beta_2 IMM\_LAG_{ir} + \beta_3 X_{ir} + \beta_5 REG_r + \gamma_r + \xi_{ir}$$

Given the OLS model, it may occur that the error term is not unrelated to the regressors, hence making it impossible to attribute a causal interpretation to the coefficients. Here, endogeneity may affect the results because, on the one hand, the presence of immigrants may influence the preference for far-right parties. However, on the other hand, a foreigner choosing where to settle might evaluate the anti-immigrant sentiment, avoiding those municipalities where the consensus for far-right parties is high (Kraus & Schwager 2004; Bracco *et al.* 2018). When the model includes endogenous regressors, an instrumental variable approach may help.

At first, we test whether IMM and IMM_LAG are endogenous variables, conducting a Durbin–Wu–Hausman test in which we analyse whether there is a significant difference between the OLS and the IV estimator (Davidson 2000). The preliminary test strongly rejects the hypothesis that IMM and IMM_LAG are exogenous variables[3] (Cameron & Trivedi 2009). The endogeneity of the IMM variable is overcome by adopting the IV approach suggested by Card (2001). Focusing on the analysis of immigration's impact on the labour market, Card proposes an IV based on historical settlement patterns. When a person decides to immigrate, he/she prefers to settle in an area with a higher concentration of co-ethnics (see, e.g. Filer 1992; Mayda 2010; Beine *et al.* 2011). The instrument simply considers, for each area of origin (c),[4] the historical settlement in the municipality (i) weighted for the variation in immigrants from the same area of origin during the period under consideration, as follows:

$$\Delta IMM_{it} = \sum_c \left(\lambda_{ict0} IMM_{c\Delta t - t0} \right)$$

where ΔIMM is the instrumental variable, λ_{it0} is the share of immigrants of origin c in municipality i at year t_0 and $IMM_{C\Delta t - t0}$ is the proportion of inflow immigrants of origin c in the country from year t_0 to t.

In regard to the variable IMM_LAG_{it}, we calculate its instrumental variable ΔIMM_LAG_{it} as the share of foreigners in neighbouring municipalities, imputed starting with ΔIMM_{it}. Adopting this approach, potential endogeneity is avoided both for the variable IMM and for IMM_LAG_{it}, since we consider settlement decisions as not influenced by anti-immigrant sentiment.[5] We set t_0 at year 2010 for two main reasons. First, the history of the Lega party is considered. As already stressed, before the change in the party's leadership in 2013, the name of the party was Lega Nord (literally, 'Northern League'). It was mainly fighting for the independence of the northern regions (disregarding the Southern electorate) and the party's anti-immigration rhetoric was considerably less important (Brunazzo & Gilbert 2017; Albertazzi *et al.* 2018; Mancosu & Ladini 2020).

Second, the immigration topic has acquired importance in the public debate and on the agenda of political parties since the 2011 'immigrant crisis' (Toshkov & Kortenska 2015; Givens 2020), when more than 62,000 immigrants arrived in the country—first from the Maghreb then from Libya, due to the civil wars that broke out in those areas (Ambrosini 2020)—awakening new anti-immigration sentiments in the country.

Number of observations – The specification of the number of observations under analysis here requires some additional details. The analysis is carried out at the municipality level. The use of the municipality-level data allows us to rely on observational data rather than on samples. This approach also shows some drawbacks. Implicitly, this analysis assumes the homogeneity of voters within each municipality, hence it does not directly account for individual characteristics.

Given this framework, we consider the 2019 administrative boundaries, according to which the number of municipalities in Italy is 7960. However, given the latest reorganization of Italian municipalities, which underwent additional merging even during 2019, we excluded
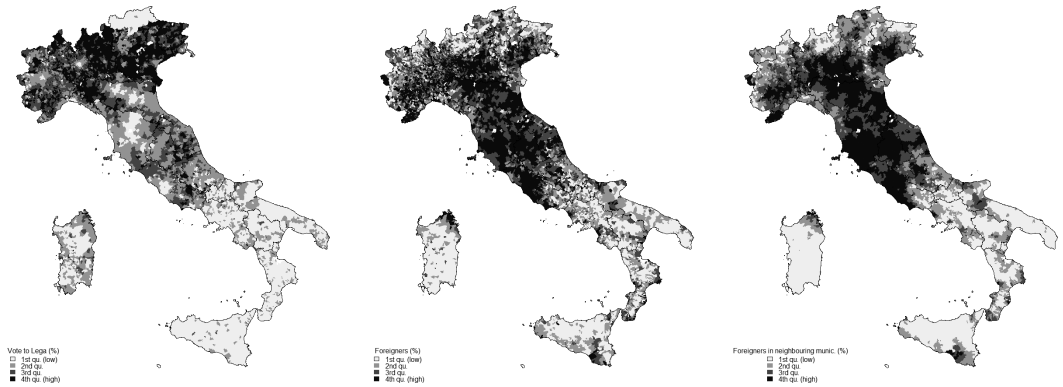
Figure 1. *Vote to the Lega (left panel), share of foreigners (central panel), and share of foreigner in the neighbouring municipalities (right panel), across Italian municipalities.*

75 municipalities for which there is no information on voting in May 2019. Additionally, 14 municipalities were excluded as they do not have any neighbouring municipalities (e.g. islands), hence it was impossible to compute spatially lagged variables. Lastly, for the estimated IV models 87 municipalities were dropped as they had no foreigners at time t_0, thus the IV algorithm would return a value equal to 0 even though the share of foreigners has actually increased over time.[6]

Thus, the OLS models encompass 7871 observations, while the IV models encompass 7784. For the sake of completeness, the descriptive statistics—shown in the following section by variable—cover the total set of observations.

RESULTS

Descriptive statistics – In the 2019 EU elections, the vote for the Lega party was equal to 34.26 per cent on a national basis. On a municipality basis, the median value was equal to 40.22 per cent, despite significant variability across the country. See Table A.1 in Appendix A for the descriptive statistics for all the models' variables.

Figure 1 shows the territorial distribution of the Lega party's vote and the share of foreigners, as observed at both the municipality level and in neighbouring areas. A strong territorial pattern emerges: northern municipalities show a considerably larger share of both votes for Lega and foreigner settlement.

Results of the models – Table 2 shows the results for the estimated models. It presents the estimates for the OLS model and the 2SLS model, both in their basic versions (1 and 3) and in the versions including the spatial lag for the share of foreigners (IMM_LAG) (2 and 4). Disregarding the estimates for the OLS models, which are biased and inconsistent, in (3) it is worth noticing that the share of foreigners negatively affects the Lega vote at the municipality level. Conversely, the dummy variable INNER shows a positive and significant effect. The Lega vote is 1.86 percentage points greater in inner municipalities than in non-inner ones. Analogously, the coefficient of Log_pop is negative: the more populous the municipality, the lower the share of votes for Lega. Other covariates have the expected coefficients, being consistent with the contributions of Levi and Patriarca (2020) and Roccato *et al.* (2020). Considering a median income (i.e. the third quintile of the distribution) as the baseline, poorer municipalities (fourth and fifth quintiles) have a positive coefficient while wealthier municipalities (first and second quintiles) show negative coefficients. The effect of the share of manufacturing employment on the Lega vote is quadratic. As expected, the number of not-for-profit volunteers per inhabitant is negatively associated with the Lega vote, while, contrary to expectations, the gross enrolment ratio in tertiary education is not significant. The aforementioned effects are obtained by controlling for NUTS-2 region effects.

Table 2. *Model estimates for the OLS models and the 2SLS models.*

	OLS		2SLS	
	(1)	(2)	(3)	(4)
	No spatial lags	Spatial lags	No spatial lags	Spatial lags
Constant	57.676***	57.068***	61.745***	73.032***
IMM	−0.041	−0.075	−0.672***	−0.559***
IMM_lag		0.090		−1.301
INNER	1.767***	1.786***	1.862***	1.623**
Log_pop	−0.774***	−0.758***	−0.430*	−0.460*
Pop_over_65	−0.107	−0.104	−0.159	−0.235*
Quintiles of income (base level: third quintile)				
Fifth quintile	1.581**	1.602**	1.943***	1.823**
Fourth quintile	1.156**	1.167**	1.026**	0.776
Second quintile	−2.727***	−2.740***	−2.742***	−2.575***
First quintile	−7.478***	−7.500***	−8.051***	−8.074***
Manuf_employment	−0.026	−0.027	−0.034	−0.026
Manuf_employment^2	0.001*	0.001*	0.001**	0.001
Not-for-profit	−9.406*	−9.314*	−10.803**	−12.854**
Tertiary_educ	−0.038	−0.038	−0.045	−0.048
NUTS-2 region controls	Yes	Yes	Yes	Yes
Observations	7871	7871	7784	7, 784
R-squared	0.713	0.713	0.687	0.603

Note: standard errors clustered at the NUTS-2 region level.
****p < 0.01; **p < 0.05; *p < 0.1.*

As an additional covariate, model (4) includes IMM_LAG. In this case, other covariates do not change their effects, with the only exceptions of: (i) the quadratic share of manufacturing employment, which is no longer significant, (ii) the share of the older population, which becomes negatively correlated with Lega consensus[7] and (iii) the fourth quintile of income distribution, which is no longer statistically different from the third quintile. However, IMM_LAG is not significant.

Table A.2 shows the first-stage estimates of model (4). The analysis shows that both IMM and IMM_LAG are negatively correlated with the proportion of individuals older than 65 years old, and with the number of volunteers in not-for-profit associations per inhabitant (Not-for-profit). Furthermore, foreigners tend to settle in more populated areas, in municipalities with less educated persons, while avoiding the richest municipalities. The F-statistics on the instrumental variables are 20.66 (column 1) and 93.64 (column 2) respectively. These results, far greater than 10, reassures on the strength of the selected instruments.

In Table A.3 in Appendix A, a few robustness checks are provided to verify the robustness of our results. To enable a more straightforward comparison, in the first two columns we show the same results already shown in Table 2 (models (3) and (4)). In analysis 2, we present the 2SLS models applied without considering the share of employment in manufacturing as this variable could be affected by endogeneity; in analysis 3, we interact each quintile of income with the dummy variable INNER; in analysis 4, the ratio of European (EU) foreigners to the total foreigners at municipality level is added among covariates. Thanks to these controls, it is possible to understand whether the coefficients resulting from the main principal analysis are affected by correlated variables. Analysis 2 does not control for the share of

manufacturing employment. This represents an important check insofar as immigrants may decide to establish themselves in areas with a higher share of manufacturing or, on the other hand, low-skilled workers may feel threatened by a greater supply of labour. In analysis 3, we find out that the correlation between taxable income and the share of the vote for Lega does not change in the inner/non-inner areas.[8] Finally, since EU foreigners have the right to vote in the European elections, analysis 4 is an important check to rule out the possibility that the contact hypothesis could be driven, at least partially, by the foreign voters. The results are strongly robust to these controls in each analysis.[9]

DISCUSSION

This analysis investigates the main drivers of the vote for Lega party in Italy, shedding new light on the nexus between migrant settlement and electoral support.

First, using municipality-level data it is possible to refer to observational data, controlling for socio-economic covariates. In line with the findings from the 'geography of discontent' literature (Los *et al.* 2017; Martin *et al.* 2018; Rodríguez-Pose 2018; Dijkstra *et al.* 2019), the vote for Lega is larger the weaker the socio-economic fabric—namely, in less wealthy, more rural, and other remote municipalities. In particular, Italian inner areas (Barca *et al.* 2014) seem to be particularly prone to anti-immigration vote. Those areas suffer from the socio-economic drawbacks of the urban–rural imbalance (OECD 2018). A weakening economy a depopulation (Barca *et al.* 2014) contribute to the process of ongoing socio-economic marginalization, fuelling the 'discontent' process (Rodríguez-Pose 2018). The findings from this analysis confirm these hypotheses. Inner municipalities are much more prone to the Lega vote, even when jointly controlling for both the share of foreigners living there and specific NUTS-2-level region fixed effects. Although it is not possible to control for the role of the precarity at work and the precarity of tenure (as suggested by Antonucci *et al.* 2021), this result may suggest the role of competition over scarce resources in favouring the vote for Lega.

However, this explanation is far from being exhaustive. Both the contact effect and the halo effect might operate: the former counterbalancing the ethnic competition hypothesis and the latter fostering it, when also considering neighbouring areas.

Here, the negative coefficient for the share of foreigners at the municipality level on the vote for a right-wing party—when controlling for other territorial covariates—seem suggesting that the positive effect of contact between natives and foreigners is actually observed across the country, thus counterbalancing the effect of competition over scarce resources, as proxied by the 'geography of the discontent'. This finding—which is quite robust among alternative specifications of the model—is in line with those of Coffé *et al.* (2007), Steinmayr (2016), and Stockemer (2016).

In particular, Coffé *et al.* (2007) suggest that fear of foreigners rather than the real presence of immigrants actually drives voting for extreme right parties. Their results also support the abovementioned theory of 'welfare chauvinism'. Although our findings contrast with this theory, we need to conduct further analyses to confirm these initial suggestions. Stockemer (2016) found no correlations between perceptions about immigration and the percentage of foreign-born citizens. Steinmayr (2016) offers support for the contact hypothesis in Austria, finding that hosting refugees decreases FPOE support by 4.42 percentage points.

With regards to Italy, our results contrast the analyses of Barone *et al.* (2016) and Devillanova (2020). However, this may be explained by the different empirical scheme. In comparison with the political parties considered by Barone *et al.* (2016), this work focuses on a political party—that is, Lega—whose main political ideology has increasingly shifted towards an anti-immigration position. In his very insightful research, Devillanova (2020) focuses on five electoral outcomes in the city area of Milan. He conducts his analysis disaggregating the area into neighbourhoods, which have an average size of 2 square kilometres. This is too small of a level to distinguish between a direct and indirect effect. Moreover, we opted to consider a single election that was largely affected by the immigration issues (namely, the 2019 EU one).[10]

However, the major novelty of this work is also the introduction of the spatial lag of foreigner presence. This variable is never significant. This interesting result seems suggesting that the halo effect (Rydgren & Ruth 2013) is not actually observed. Despite the existence of multiple effects operating in the neighbouring space, one could argue that the compounding effects of the halo theory and of the competition over resources in a wider area (e.g., in the case of the labour market, which typically involves more neighbouring municipalities) do not overcome the effect of direct contact over wider areas.

However, this analysis also shows some limitations. In particular, analysing one single election round might not allow one to control for unobserved time-invariant factors. In this regard, replacing a cross-section approach with a panel data approach that considers multiple EU elections might help in uncovering the changes in Lega support, considering and tracking down any changes in the drivers affecting it (hence, also in the competition effect, the contact hypothesis and the halo effect). However, it should also be noticed that a similar approach might suffer from some major biases. Actually, the EU 2019 and 2014 election rounds imply comparing very different political contexts, where even the motivations behind the vote for the Lega party have changed over time.[11]

CONCLUSIONS

This paper contributes to analysing factors explaining extreme right voting in Italy at the municipality level. The ethnic competition hypothesis, the contact hypothesis and the halo effect are jointly tested by means of an IV empirical strategy and controlling for socio-economic and territorial covariates (e.g. the presence of inner and remote municipalities). As a major novelty, this paper considers the presence of foreigners also across neighbouring municipalities. The results strongly point out that the consensus to anti-immigration parties is particularly large among the 'losers' of the economic phase of globalization. For example, inner areas, which suffer from socio-economic weakness, are particularly prone to voting to

extreme right parties. However, even in those areas, the direct contact with foreigners seems to reduce the vote for Lega, thus overcoming the effect of competition over scarce resources. Moreover, when the focus is expanded to the neighbouring municipalities, it could be argued that the compounding effects of the halo theory and the competition over resources do not overcome the contact effect.

CONFLICT OF INTEREST

No conflict of interest.

Endnotes

1. Other far-right parties in Italy obtained lower percentages: only Fratelli d'Italia passed the 5 per cent electoral threshold (with 6.4% of total votes).

2. The generic element w_{ij} of **W** is defined as $w_{ij} = \frac{w_{ij}^*}{\sum_{j=1}^{7982} w_{ij}^*}$, where w_{ij}^* is equal to 1 when $i \neq j$ and $j \in N(i)$, while it equals 0 when $i = j$ or when $i \neq j$ and $j \notin N(i)$. Here, N(i) just represents the set of neighbours of the i-th region.

3. More details are available upon request.

4. We aggregate the countries of origin into continents: Africa, America, Asia and Australia, Europe (outside of Italy). The instrumental variable distinguishing among areas of origin is an important component since it allows a more accurate definition of the historical settlement patterns.

5. The potential issue of multicollinearity is avoided since the correlation between the two instrumental variables is 4.10 per cent.

6. As a robustness check, we replaced the null values in 2010 with one. The results strongly confirm our findings.

7. Italian reports show that the population older than 65 is the age range in which Lega enjoy the lowest percentage of consent (see, e.g. https://www.ipsos.com/it-it/elezioni-europee-2019-analisi-post-voto).

[8] Details for this interaction are available upon request.

[9] We conducted other robustness checks on the instrumental variable, the outliers and the covariates. These are available upon request.

[10] See https://ec.europa.eu/migrant-integration/feature/what-can-we-expect-from-the-new-european-parliament-on-migrant-integration.

[11] Similar (and even more worrying) caveats apply when considering a comparison between EU and general (national) elections.

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APPENDIX A

Table A.1. *Descriptive statistics.*

	Variable	Min.	1st Qu.	Median	Mean	3rd Qu	Max.	Number of obs.
Dependent variable	Lega_vote	2.78	28.46	40.22	39.01	49.29	86.79	7886
Foreigners	IMM	0.00	3.35	5.96	6.66	9.22	38.20	7960
	IMM_lag	0.58	4.06	6.51	6.77	9.10	20.92	7871
Inner areas	Inner areas type:							
	Non-inner	–	–	–	–	–	–	3867
	Inner	–	–	–	–	–	–	4092
Other socio-economic covariates	Log_pop	3.37	6.93	7.81	7.84	8.74	14.87	7960
	Pop_over_65	8.15	21.12	24.13	24.70	27.59	66.23	7960
	Income:							
	Fifth quintile	6.60	11.91	12.77	12.61	13.51	14.16	1575
	Fourth quintile	14.16	14.89	15.55	15.55	16.23	16.84	1574
	Third quintile	16.84	17.34	17.86	17.86	18.38	18.84	1574
	Second quintile	18.84	19.32	19.83	19.82	20.73	20.83	1574
	First quintile	20.83	21.48	22.31	22.89	23.58	50.59	1574
	Manuf_employment	0.00	9.38	19.73	24.73	37.18	93.71	7949
	Not-for-profit	0.00	0.04	0.07	0.10	0.12	2.55	7904
	Tertiary_educ	0.00	38.20	48.13	49.61	59.65	390.91	7959

Table A.2. *First stage estimates of the 2SLS model with spatial lag.*

	(1)	(2)
	IMM	IMM_lag
Constant	7.280***	9.537***
ΔIMM	2.949***	0.386
ΔIMM_LAG	0.991	3.738***
INNER	0.092	−0.166
Log_pop	0.471***	−0.028
Pop_over_65	−0.091***	−0.066***
Quintiles of income (base level: third quintile)		
Fifth quintile	−1.003**	−0.221
Fourth quintile	−0.053	0.098
Second quintile	−0.228	−0.183
First quintile	0.448	−0.050
Manuf_employment	−0.013	0.007
Manuf_employment^2	0.000	−0.000
Not-for-profit	−2.021*	−1.676***
Tertiary_educ	−0.013**	−0.003
NUTS-2 region controls		
Observations	7784	7784
R-squared	0.301	0.479

Notes: Standard errors clustered at the NUTS-2 region level.
***p < 0.01; **p < 0.05; *p < 0.1.

Table A.3. *Robustness check regarding the 2SLS models.*

	Base analysis		Analysis 2 (no manuf. Empl.)		Analysis 3 (interaction quintiles–inner areas)		Analysis 4 (controlling for European foreigners)	
	2SLS	2SLS with spatial lag	2SLS	2SLS with spatial lag	2SLS	2SLS with spatial lag	2SLS	2SLS with spatial lag
Constant	61.745***	73.032***	63.346***	76.003***	61.593***	72.907***	64.338***	74.549***
IMM	−0.672***	−0.559***	−0.678***	−0.584**	−0.664***	−0.548***	−0.708***	−0.596***
IMM_lag		−1.301		−1.399		−1.3		−1.226
INNER	1.862***	1.623**	1.846***	1.579**	1.742**	1.343	1.941***	1.704**
Log_pop	−0.430*	−0.460*	−0.534***	−0.553***	−0.433*	−0.463*	−0.530***	−0.542*
Pop_over_65	−0.159	−0.235*	−0.178	−0.267*	−0.153	−0.229*	−0.153	−0.226
Quintiles of income (ref. level: third quintile)								
Fifth quintile	1.943***	1.823***	1.775**	1.657*	2.874***	2.855**	2.196***	2.041**
Fourth quintile	1.026**	0.776	0.891**	0.603	0.892	0.313	1.044***	0.806
Second quintile	−2.742***	−2.575***	−2.585***	−2.381***	−3.028***	−2.893***	−2.673***	−2.527***
First quintile	−8.051***	−8.074***	−7.867***	−7.895***	−8.089***	−8.238***	−7.956***	−7.993***
Manuf_employment	−0.034	−0.026			−0.032	−0.024	−0.040	−0.032
Manuf_employment^2	0.001**	0.001			0.001**	0.001	0.001**	0.001
Not-for-profit	−10.803**	−12.854**	−11.092**	−13.426**	−10.928**	−12.968**	−11.137**	−13.015**
Tertiary_educ	−0.045	−0.048	−0.047	−0.051	−0.045	−0.048	−0.043	−0.046
European foreigners							−0.037**	−0.031
NUTS-2 region controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interaction inner areas–quintiles of income	No	No	No	No	Yes	Yes	No	No
Observations	7784	7784	7784	7784	7784	7784	7784	7784
R-squared	0.687	0.603	0.684	0.586	0.688	0.605	0.686	0.608

Notes: Standard errors clustered at the NUTS-2 region level.
$***p < 0.01$; $**p < 0.05$; $*p < 0.1$.