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PERCEIVED IMMIGRATION AND VOTING BEHAVIOR

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ABSTRACT

Several studies document significant effects of real immigration on electoral outcomes. This paper focuses, instead, on perceived immigration by looking at how local elections in Italy were affected by pre-electoral sea arrivals of refugees. While, upon arrival, refugees cannot freely go to the desired municipality, landing episodes are widely covered by the media before the elections, thereby increasing immigration salience. We develop an index of exposure that varies over time and across municipalities depending on the nationality of the incoming refugees. It captures the impact of perceived immigration on voting behavior, on top of the effects of real immigration measured by the local stock of immigrants and refugees. We find that in municipalities where refugees are more expected to arrive, participation decreases, whereas protest votes and support for extreme-right, populist and anti-immigration parties increases. Since these effects are stronger in areas better served by internet and located closer to the ports of disembark, electoral campaigns likely played a key role in boosting voters' fear of future arrivals. Consistent with this, Twitter data show that immigration salience raises mainly in the election period and in highly-exposed provinces, while most arrivals occur months later.

JEL Codes: D72; J15; P16; O15; J61

Keywords: Immigration; Voting; Salience; Political Economy; Populism; Electoral campaigns; Media exposure.

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1. INTRODUCTION

Recent national and European Parliament elections across European countries have shown increasing support for far-right and right-wing populist political parties, calling for a rise of nationalism in Europe (e.g. Guiso et al. 2017 and 2018; Colantone and Stanig 2019). This political change has been exacerbated by the refugee crisis that occurred in the last few years, when thousands of migrants arrived on the Greek and Italian coasts as well as at the borders of Germany, Austria and Hungary. An interesting, yet overlooked issue is to what extent the surge these parties can be accounted for by the *perceived* threat of increased immigration, rather than, or in addition to, *real* contact with immigrants.

The role that immigration perceptions could play in shaping political outcomes is not negligible. In many European countries, the perceived presence of immigrants is well above that portrayed by real data. This is true especially in Italy, where over-estimation of the number of immigrants living in the country is among the highest in Europe[1]. In addition, while official statistics show that the actual number of migrants landed in the ports of Italy, Greece and Spain peaked only in October 2015 and declined soon after to its pre-2015 level (UNHCR 2018[2]), immigration continues to populate the political debate and to influence public opinion. For instance, the frequency of articles in Italian newspapers containing the words "immigrant(s)" and "crime(s)" raised considerably since 2016, whereas refugee arrivals decreased and crime rates remained constant. Furthermore, Eurobarometer data suggest that, among European citizens, immigration and terrorism are still mentioned as the main concerns for Europe, whereas economy, finance and unemployment have gradually lost importance since 2011. These concerns might be the source or the consequence of incorrect beliefs about immigration, which might have played a role in political outcomes. As an example, natives in Germany, France, Italy, and the UK – which are among the countries that most witnessed the upsurge of populist and right-wing parties – on average misperceive the number and characteristics of immigrants, and are less willing to support redistribution policies when migration is made salient to them (Alesina et al. 2019).

This paper focuses on the role of perceived immigration in political elections. We depart from previous studies based on *real* immigration (e.g. Dustmann et al. 2018; Steinmayr 2019; Edo et al. 2019; Levi et al. 2020), and test whether sea-arrivals of refugees before the local elections shaped citizens' *expectations* about immigration and, consequently, their voting behavior. Our focus is on local elections in Italy, which is among the first in Europe not only for over-estimation of immigrants, but also for the electoral success of populist parties (42 percentage-points increase from 2008 to

[1] Source: Integration of immigrants in the European Union – Eurobarometer (2018).
[2] https://data2.unhcr.org/en/situations/mediterranean.

2018). Moreover, Italy, jointly with UK and France, is in the bloc of countries where right-wing and populist groups did best in the European parliament elections in 2019.

Our main hypothesis is that the perceived threat of (and anxiety about) refugee arrivals significantly contributed to the decline in turnout and to the increase in protest, extreme right-wing and populist votes that has occurred in Italy from 2010 to 2018. Voting preferences, we argue, were gradually shaped not much, or not only, by the local share of regular immigrants (*real* immigration), but also by perceptions associated with the inflow of refugees (*expected* immigration). We deem citizens' exposure to media an important driver of these perceptions. Arrival episodes gained importance in the media especially before the elections, thereby increasing salience of immigration in the upcoming political competition. Indeed, landing episodes were often used by far-right parties to represent immigration as a threat for natives, with the aim influencing voters' attitudes and/or political preferences to their own advantage (e.g. Gentzkow et al. 2015; Allcott and Gentzkow 2017; Couttenier et al. 2019). As a consequence, the importance of immigration in the political debate and the (mis)perceptions about the severity of the issue increased, especially where refugees were more expected to arrive, and independently from the local stock of immigrants. Supporters of traditional parties, we argue, got gradually unsatisfied with the way immigration was dealt with by their representatives, and either abstained from voting or, when voting, expressed discontent through invalid/blank ballots or support to anti-establishment parties (e.g. Barone et al. 2016). Hence, as immigration became salient and the prospect of new arrivals was perceived as a threat, those parties proposing severe restrictions to immigration managed to increase their vote share.

To assess the impact of perceived immigration on electoral outcomes, we rely on official data on the arrivals of refugees at Italian ports. We exploit variation in the nationality composition of the incoming boats, which is (reasonably) exogenous to the local political cycle, and build an index of exposure that varies by municipality and over time. This index weights the number of arriving nationalities by time-distance from the pre-determined election day and by the share of incoming refugees' co-nationals residing in each municipality. Since, after disembarking, refugees cannot freely and immediately reach the desired destination, our index captures the increased salience and perceived threat of immigration associated to the refugee arrivals before the elections. Since migrants tend to settle where they have a large pre-existing network of co-nationals (e.g. Altonji and Card 1991; Mushi 2003; Barone et al. 2016), the perceived threat stemming from pre-electoral arrivals should be higher (lower) where refugees are more (less) expected to go after landing, i.e. in municipalities with a high (low) share of regular migrants that have the same nationality as that of the incoming refugees.

As landing episodes were largely discussed in the media in the electoral periods, voters get to know about the refugee inflow mainly through the news covering such events. We show that the online popularity of topics related to immigration grows systematically before the elections (especially in 2018), and tends to decline soon after. A similar pattern is observed for the frequency of immigration-related tweets, which increase remarkably in the election period, and especially in provinces where the perceived threat of future arrivals is higher. We also expect a larger effect of exposure to arrivals where broadband is more widespread. Not only do discussions about the arrivals provide voters with detailed information about the characteristics of the landings (e.g. gender, age and ethnic composition), but also might they sustain voters' (mis)perceptions about immigration and drive them to consider new arrivals as a threat.

We use data on Italian municipal elections from 2010 to 2018, and look only at municipalities that voted twice in this time window. We perform first-differences estimates to net out municipality fixed effects, and control for time-varying factors that may interact with migration inflows and electoral outcomes, i.e. the presence of centers for refugees and asylum seekers, as well as for demographic and economic characteristics of the municipalities. Conditional on the local share of migrants and on the presence of refugee centers that capture *real* exposure to migration (i.e. contact with immigrants), our reduced-form strategy provides estimated impacts of *perceived* migration on changes in political outcomes. We consider five outcomes separately, i.e. turnout, share of protest votes, and share of votes for anti-immigration, populist and extreme-right parties. To control for potential endogeneity in the exposure index due to selection of immigrant nationalities into municipalities, we perform a series of tests. Among those, we use the historical lagged version of the index as an instrument for the current-period index, fix the local share of immigrants entering the calculation of the index at the first wave of elections, and check for significant pre- or post-electoral trends in the distribution of immigrants by their country of origin.

Our results show that the increase in perceived exposure to arrivals significantly predicts the negative trend in turnout that Italian municipalities experienced in the last years. It also explains the recent rise in protest and populist votes, as well as the increased consensus gathered by anti-immigration and extreme-right parties. As expected, these effects are mainly driven by voters in municipalities with wider access to the broadband. This finding is consistent with previous studies, which attribute a sizeable part of the rise in populism in Italy to use of internet as main source of political information (Campante et al. 2018; Shaub and Morisi 2019). The role of media-driven (mis)perceptions is further highlighted by the significant pre-electoral trend of immigration-related tweets, which does not often mirror the trend of arrivals. Additional results show that the effect of exposure is larger in municipalities located closer to the ports of arrival, thereby suggesting that the

threat of new inflows of immigrants, rather than increased salience of local minorities (Colussi et al. 2019), is the main mechanism at work.

The rest of the paper is structured as follows. Section 2 sets the stage for the empirical analysis by discussing (mis)perceptions about migration, the rise of populism and the institutional and political context. Section 3 discusses the related literature, while Section 4 presents the variables used in the analysis, the data sources and provides descriptive statistics. Section 5 brings together pre-electoral landings and immigration salience, Section 6 introduces the empirical model and presents the baseline results, while Section 7 deals with endogeneity issues. Section 8 goes deeper into the role of media. Section 9 reports results from various robustness checks and investigates heterogeneity of the effects. Section 10 concludes.

2. BACKGROUND

2.1 MISPERCEPTION OF MIGRATION AND POPULISM

European countries have recently witnessed an increase in the share of votes for far-right and right-wing populist political parties. The Freedom Party in Austria (26%), the Swiss People's Party in Switzerland (29%), the Northern League in Italy (17.4%), Vox in Spain (10.3%), the Danish People's Party in Denmark (21%), Fidesz in Hungary (49%) are few examples of national parties that have increased consistently their percentage of votes in the most recent national elections[3]. The last European elections have seen nationalist and far-right parties across Europe increasing their political power (especially in Italy, France and United Kingdom) as well as their chances to promote radical anti-euro and anti-immigration policies.

As far as Italy is concerned, the leader of Northern League (former deputy Prime Minister, Matteo Salvini) spearheaded the new government's anti-immigration stance, turning away humanitarian rescue ships from Italian ports. His party has had a long Eurosceptic reputation, and a number of its candidates for the European elections want to leave the euro-zone. The arrivals of refugees to European countries has exacerbated such political scenario up to the point that Italian government wanted to abolish key forms of protection for migrants, suspend the refugee application process of those who are considered socially dangerous or who have been convicted of a crime, and make it easier for the latter to be repatriated.

Although countries are still struggling to absorb migrants' sea arrivals, migration to Europe is going down sharply, whereas the perception that it represents a real crisis is not. In the last years, the

[3] https://www.bbc.com/news/world-europe-36130006.

actual number of arrivals is back to its pre-peak level, which has been reached in late 2015[4]. Indeed, according to the European Border and Coast Guard Agency, an estimated 150,000 people entered the European Union through irregular crossings in 2018; yet this number represents the lowest total since 2013 and it is 92% below the peak recorded during the 2015 crisis[5]. Nevertheless, the politics of migration still presents Europe as a continent under siege from migrants, even though the numbers depicts a very different picture. For instance, the far-right prime minister of Hungary claimed "we have failed to defend ourselves against the migrant invasion"[6], the Czech prime minister said "there are 700,000 illegal migrants – they need to go home" [7], the German interior minister has threatened to turn back refugees at his country's southern border and wants to close borders[8], and Italy's former deputy prime minister and interior minister (also leader of the Northern League) tweeted that the ports have been (and remain) closed[9].

This strategy seems to have reached the awaited consequences as European Union (EU) citizens are more concerned about immigration than about any other social challenge. The share of immigrants as measured in official records does not often match with subjective estimates of the citizens (Figure 1), which tend to respond to the political debate on migration in the months preceding elections. In comparison with other EU citizens, Italians have the most biased perceptions ---they over-estimate the share of immigrants living in their country by 18 percentage points (Figure 1). This is not only an Italian issue, since EU respondents, on average, over-estimate the proportion of immigrants in their country by about 10 percentage points. Lack of knowledge about migration could be one of the reasons behind these biased beliefs: when asked how much they were informed about immigration and integration issues, 62% of Italians answered either that they were not at all or not informed, two percentage points above the EU-28 average[10].

[Figure 1 around here]

In this paper, we argue that voting preferences are not so much (or not only) shaped by the local share of immigrants, but, rather (or also), by the *perceived* threat of refugees' inflows, as boosted by the news covering arrival episodes and the public debate on the issue. These episodes were largely

[4] According to the island of Lampedusa's mayor (one of the southernmost point of Italy and therefore among the main front line of the crisis), "the number of arrivals has dramatically reduced" such that the place is now as "quietest it's been since 2011" (https://www.nytimes.com/interactive/2018/06/27/world/europe/europe-migrant-crisis-change.html).
[5] See also https://www.bbc.com/news/world-europe-46764500
[6] https://www.kormany.hu/en/the-prime-minister/the-prime-minister-s-speeches/prime-minister-viktor-orban-s-speech-at-a-conference-held-in-memory-of-helmut-kohl.
[7] https://www.theguardian.com/world/2018/oct/25/europe-migrants-need-to-go-home-says-czech-prime-minister
[8] https://www.nytimes.com/2018/06/15/world/europe/germany-merkel-migrants-bavaria-seehofer.html
[9] https://twitter.com/matteosalvinimi/status/1107755836259139585
[10] Source: Integration of immigrants in the European Union – Eurobarometer (2018).

discussed in formal and informal media before the elections. Google Trends statistics show that the frequency of searches of a migration-related topic in Italy tend to follow the electoral cycle (Figure 2)[11]. Google searches containing the Italian words "Sbarchi" (boat landings) or "Immigrati" (immigrants) seem also to mirror the distribution of the actual arrivals, rising substantially in the month preceding or during the elections, and decreasing thereafter. Moreover, considering the Italian words "Immigrati" (migrants) or "Rifugiati" (refugees) contained in province-level tweets, data show a positive trend of the topic reaching its peak in 2018. Although, the frequency of tweets tends to follow the real sea-arrivals of refugees, there is a mismatch between actual arrivals of migrants and migration-related tweets from 2017 onwards, when immigration-related tweets increase while boat landings decrease (Figure 3). Finally, data on joint occurrences of the words "Immigrati/o" (immigrant/s) and "Reato/i" (crime/s) in Italian newspapers underline a gradual mismatch between perceptions and reality. The frequency of these words displays an increasing trend, especially after 2016; however, refugee arrivals started to decline in 2016, and the number of immigrant's and native's crimes remained constant for the entire period considered (Figure 4). As a further evidence of the misalignment between perception and reality, Bove et al. (2019) show that immigration increased demand for police protection in Italy; they provide empirical evidence about the mismatch between perceptions of crime and reality at the local level, with immigration boosting fear of future crimes rather than the probability of being a victim of crime.

Misperceptions, likely induced by anti-immigration campaigns spread out in the media, might have therefore played a non-negligible role in voting behavior. From a descriptive point of view, countries with the largest share of citizens showing biased estimates of migration are also those in which populist parties have obtained the highest share of votes between 2008 and 2018 (Figure 5). Interestingly, Italy ranks among the first among the EU countries not only for over-estimation of immigrants, but also for the rise of populist parties, which increased their vote share from around 8% in 2008 to almost 50% in 2018. Greece, Spain, France, Hungary, Czech Republic are other cases in which misperception of immigrants and support to national parties are both at high levels.

[Figures 2, 3, 4 and 5 around here]

While informative, this piece of evidence does not allow to establish a causal link between (mis)perceptions of immigration and political outcomes. Our paper contributes in this direction by

[11] Google Trends gives a 0–100 index of interest over time of a given word or phrase, compared to the total number of Google searches done during that time.

exploiting (plausible) exogenous variation in the distribution of nationalities in the landing episodes preceding the predetermined election day.

2.2 INSTITUTIONAL AND POLITICAL CONTEXT

Since our study relies on data on Italian municipal elections, we provide in this section a brief description of the institutional background of the country.

The municipal level of government in Italy includes over 8,000 authorities. The average population size is around 7,000 inhabitants, and the number of cities above 100,000 inhabitants is only around 40; just two of them exceed one million residents, with more than half localities having less than 3,000 residents.

Elections for municipal governments (local council and mayor) take place every five years, with direct election of the mayor in a single or dual ballot depending on resident population size. Cities with more than 15,000 inhabitants have a runoff stage among the two most voted candidates if none of them collects more than 50% of the votes in the first stage. Voters can express a vote for a mayor candidate as well as for a councilor candidate. Two thirds of the council seats are assigned to the councilor candidates that are typically grouped in a list supporting the mayor that is elected. Voting is formally mandatory for all citizens aged above 18, yet no sanctions exist for abstainers.

The electoral schedule across the country is staggered ---several elections occurred in the years considered in this paper and, more importantly, not all the municipalities vote in the same year and at the same time[12]. This feature allows us also to take into account how salience of migration varies according to the time distance between the date of the landing episodes and the date of local elections.

At national level, in the last two decades in Italy there were five parliamentary national elections, i.e. in 2001, 2006, 2008, 2013 and 2018. Two of them (2001 and 2006) were won by the center-right coalition, headed by Mr. Silvio Berlusconi, while the third round (2008) was, instead, won by the center-left coalition, headed by Mr. Romano Prodi. In the fourth round (2013), the Centre-Left Democratic Party led by social democrat Pier Luigi Bersani emerged as the Italian voters' first choice. The Centre-Right alliance, led by Mr. Silvio Berlusconi was the second-most preferred party. An important feature of this election term was the electoral success of the populist party "Five Star Movement", which ranked third in the election.

[12] The exact day of the election is chosen each year by decree of the Minister of Internal Affairs among all Sundays in the period 15 April to 15 June and it is the same for all municipalities that are in the election year. Usually municipal elections are held every five years to replace the mayor, the municipal government and the council. The only case in which a municipality votes with a different schedule is in the case the mayors, or at least half of the councilors, resign before the end of the term. Early termination can be also due to a dissolution for suspected mafia presence in the council, merging with other municipalities and other violations of the law.

Finally, in 2018 Italy voted for the first time with a new electoral law, passed by Parliament in the autumn of 2017. The Five Star Movement was the most voted party, while the center-right alliance was the most voted coalition. Within this coalition, the Northern League ("Lega Nord") received the largest share of votes. This party started as a regionalist party in the '90s, with a political agenda focused on fiscal federalism and political autonomy of the Italian northern regions. At the beginning of the 2000s, the party reached increasing success in the country, taking the form of a proper nationalist party as other national parties in Europe (e.g. National Front in France, Freedom Party in Austria, AfD in Germany, Danish People's Party in Denmark, Progress Party in Norway). More importantly, this party is associated with anti-euro and anti-immigration campaign. Their leaders have repeatedly promised to expel all illegal migrants from Italy under the slogan "*Italians first"*. Along with Northern League, there are also extreme right parties, such as neo-fascist groups like "Casa Pound" and "Forza Nuova", which openly revive the symbols, vocabulary and ideas of Mussolini-era fascism.

2.3 IMMIGRATION TRENDS AND POLICIES IN ITALY

The Italian migrants' reception system, as clarified by the Legislative Decree (LD) 142/2015, operates at two levels as summarized in Figure A1 in Appendix. Immediately after arrival, migrants receive first assistance in the form of medical care, health screening and identification in one of the 4 collection centers, called HOTSPOT, set up closely to the main landing ports (Lampedusa, Trapani, Pozzallo and Taranto). These centers are coordinated by the Italian Prefectures, and migrants can start there the procedure to request international protection for refugees.

Within 48 hours, migrants are transferred to CPA (Centri di Prima Accoglienza, or first reception centers). CPA are intended to be a temporary arrangement in the meantime migrants receive response for their request for international protection, with an average permanence period of 10 days. In case their request is accepted, migrants become asylum seekers and can be directed to the second level of reception, where they wait for the final response on their international protection request. In case of a negative answer, migrants are transferred to CPR ('Centri di Permanenza e Rimpatrio') and CIE ('Centri di Espulsione') waiting for repatriation.

The second level reception system is coordinated by the Ministry of the Interior in collaboration with ANCI, the National Association of Italian Municipalities, through the SPRAR system ('Sistema di Protezione per Richiedenti Asilo e Rifugiati', i.e. protection system for asylum seekers and refugees). Participating to public national tenders for migrants reception, each Italian municipality has the possibility to set up reception centers (usually residences, apartments or hotels) in collaboration with cooperatives and organizations. Winning participants then give their availability

to host asylum seekers and refugees. Municipalities and cooperatives receive in turn public funds (35,00€) for each asylum seeker and refugee they host. Thus, for a municipal government, opening a reception center may be an investment, with benefits for the local economy (e.g. Gamalerio 2018)[13]. These funds have to be used to provide hosts with integration, accommodation, education and health services, other than to secure basic needs, such as clothing and food. The number of hosted migrants in the SPRAR system has grown from 3,000 individuals of 2003 to more than 26,000 in 2016, spread across more than 1000 municipalities and 652 projects[14]. In order to tackle the massive humanitarian emergency, SPRAR system has been supported by the introduction of a system of CAS ('Centri di Accoglienza Straordinaria', i.e. special reception centers).

Prefectures, cooperatives and municipalities, coordinate together the CAS system. Different from the SPRAR system, cooperatives can directly participate to public tenders, and municipalities can only provide a non-binding opinion. Expecting a reduction or a re-normalization of the migrants' flows, CAS were set up as a hybrid system between first and second reception system, intended to be used only during emergency periods, for a limited period of time, waiting for places to be released in the SPRAR system. Instead, given the constant increase in the migrants' flow to Italian costs, recourse to CAS has been intense since then.

Importantly for our identification strategy, asylum seekers are not free to decide in which SPRAR or CAS to locate. They are assigned to the reception centers depending on the availability of the municipality or the cooperative to provide beds. Although the Italian LD 142/2015 provided a time limit of six months of permanence in SPRAR centers, extendable to six additional more months, lack of official data does not permit us to have information on the real average permanence in the second system reception centers. This means that the migrants arriving at the Italian ports cannot freely circulate over the territory, and eventually reach their co-national fellows in other municipalities –at least not legally, and not immediately after the landing (upon arrival, refugees enter immediately the formal reception process). This legal feature allows us to restrict the analysis of voting behavior to the arrivals occurred in different time windows preceding the election day. For instance, when looking at the effects of the arrivals one month before the election day, refugees could only be *expected* to arrive since it is very unlikely that they can actually reach their co-nationals in the voting municipality soon after disembarking. Since landings occur mainly in the ports located in

[13] SPRAR was created in 2002 in order to establish a network of local institutions that implement reception projects for forced migrants. The primary objective of SPRAR is to provide support for each individual in the reception system, and make interventions that go beyond the simple distribution of food and housing, by also providing complementary services such as legal and social guidance and support in order to promote socioeconomic inclusion and integration. A fundamental element of those services is the temporary nature of reception, which is intended in all cases to ensure the independence and integration of recipients. The participation of local institutions in the network of reception projects is voluntary.
[14] http://www.sprar.it

the southern regions of Sicily, Calabria, Puglia and Campania, it is very likely that voters living far away from these ports form their perceptions through the media, and feel more vulnerable to immigration the higher is the share of migrants in their municipality having same nationality as that of the incoming refugees.

Thus, controlling also for the share of resident migrants in the municipality and for the presence and the size of SPRAR centers in the province, the effect we measure would capture expectations of (perceptions about) immigration, instead of changes in natives' attitudes stemming from direct interactions with immigrants.

3. THEORETICAL BACKGROUND AND RELATED LITERATURE

This paper is connected to different strands of literature that focus on the role of migration in voting behavior and electoral outcomes.

A first strand of literature is the political economy of immigration, which aims to explore whether immigration has a positive impact on the support for extreme-right parties and anti-immigration policies. One way to answer these questions empirically is to relate variation in voting outcomes to variation in immigrants' settlement. However, a major challenge in this strategy is that immigrants are not randomly allocated across electoral districts. For instance, they tend to avoid hostile regions, e.g. regions where citizens are likely to vote for far-right candidates, leading to a spurious correlation between immigration and anti-immigration votes. A recent paper by Bracco et al. (2018) studies the effect of far-right parties on the location choice of immigrants in Italy; they find that the election of Northern-League mayors discouraged immigrants from moving into a municipality. On the contrary, Halla et al. (2017) find no evidence that election outcomes in Austria drive immigrant sorting. A widespread strategy to tackle this source of endogeneity rests on instrumenting current immigrant stocks with historical settlement, as pioneered by Altonji and Card (1991)[15]. A common result in this literature is that immigration, either measured as stock or flow, affects voters' preferences, leading to the rise of anti-immigration parties through a variety of mechanisms, e.g. cultural diversity (Mendez and Cutillas 2014; Brunner and Kuhn 2018), competition in the labor market and redistributive consequences (Barone et al. 2016; Halla et al. 2017; Edo et al. 2019), concerns over welfare and compositional amenities (Otto and Steinhard 2014; Halla et al.

[15] Employing a different strategy, Harmon (2018) uses historical housing stock data in order to address the issue of endogenous location choices of immigrants arguing that the share of high-rise buildings in a municipality decades ago provides a valid instrument for the increase in ethnic diversity in more recent times, which is in turn associated with more votes for the extreme right.

2017; Levi et al. 2020), etc. Our paper investigates the issue from an alternative perspective, i.e. we assess the role of *perceived* rather than *real* immigration.

Relying on contact (Allport 1954) or conflict (Key 1949) theories, a second body of the literature has shown that electoral outcomes are affected by proximity to refugee centers (Dustmann et al. 2018; Vertier and Viskanic 2018; Steinmayr 2019; Dinas et al. 2019; Hangartner et al. 2019), which spurs anti-immigration attitudes[16]. Our focus, instead, is on the role of perceived immigration in voting behavior; by controlling for supply of SPRAR in the province, the effect of exposure to arrivals we estimate is net of the confounding effect of proximity to refugees' centers. Similar to Dinas et al. (2019) and Hangartner et al. (2019), we also explore the intensity of exposure to refugees using migrants' boat arrivals to Italian ports. Yet, this paper differs from the aforementioned studies since it explores the role of *potential*, rather than *real* contact with immigrants in voting behavior. In our empirical framework, the refugees' arrivals occurring a few weeks before local elections do not turn into an increase in the number of migrants in the city; thus, in our strategy, real intergroup interactions do not enter our measure of exposure to arrivals.

Finally, a third branch of the literature empirically explores the role of mass media reporting on attitudes towards immigrants and political outcomes. Both the frequency and the tone of coverage of immigrants in the news significantly influence the dynamics in anti-immigration attitudes (Boomgaarden and Vliegenthart 2009). People with a negative view on immigration can become more supportive of immigration if their misperceptions about the characteristics of the foreign-born population are corrected (Grigorieff et al. 2018; Facchini et al. 2017; Haaland and Roth 2017). Providing information about racial discrimination make individuals update their beliefs, yet it is not sufficient to reduce political differences in support for pro-minorities policies (Haaland and Roth 2019). Benesh et al. (2019) show that media coverage of migration issues has a causal impact on immigration worries and attitudes. The spread of fake news may affect the results of the elections, contributing to the growth of populist party platforms. Cantarella et al. (2019) show that misinformation has a negligible and non-significant effect on populist vote while Barrera et al. (2019), instead, show that false statement by populist politicians are highly persuasive in attracting voters and

[16] In line with the predictions of the contact theory (Allport 1954), the presence of individuals characterized by different backgrounds may help to reduce prejudice towards foreigners due to the intercultural interchange between communities. Therefore, in presence of certain conditions such as equal status of the groups, presence of common goals, cooperation between the groups and support of authorities, direct or mass-mediated contact with immigrants may reduce support for anti-immigration parties and help to improve attitudes towards migration. In these situations, the larger the fraction of immigrants already present in an area, the lower would be the threat natives perceive from additional immigrants, which would probably be reflected in less support for a far-right party. However, as suggested by the conflict theory put forward by (Key 1949) immigrants could be perceived, instead, as a threat to the culture of the native population, generating a sense of collective prejudice and disadvantage. Under these circumstances, natives living in high-immigrant areas perceive higher threat from additional immigrants and will be more opposed to refugee allocation, leading to an increase in votes for the center-right coalition and in support to political ideas less favorable to immigrants.

that fat checking is useless in undoing the effect. With regard to other political outcomes, the literature has also showed evidence in favor of the information hypothesis, which predicts that more informed voters weaken the incentives for politicians to strategically raise spending before elections (Repetto 2017) and increases political participation (Drago et al. 2014). Our paper also contributes to this strand of literature by analyzing whether the perceived threat of the incoming refugees is stronger in municipalities that are most exposed to the media. Relying on Twitter data, we also test whether immigration salience follow the actual trend in immigration, or, rather, the electoral cycle.

4. VARIABLES, DATA SOURCES, AND DESCRIPTIVE STATISTICS

4.1 SOURCES OF DATA

The main dataset results from a combination of different sources of data. The first part of the dataset reports electoral outcomes of all the Italian municipalities that voted twice in the period from 2010 to 2018, with a distance of 5 years between the first and the second election. The dataset gathers information on the day of election, electorate and electoral turnout, blank and null ballot papers, number of candidate mayors and the share of votes all the parties[17]. We merge this information with data on municipality characteristics, i.e. total population, share of migrants and taxable income, which have been downloaded from the Italian National Statistical Institute (ISTAT)'s website.

The second dataset contains detailed information on immigrants' arrivals through boat arrivals at Italian ports. For each landing episode, we gather information on the day and place of arrival, the total number of persons landed, and its composition in terms of nationalities[18].

We also collect information at province level (i.e. NUTS-3 level) on SPRAR. Specifically, for each year in our dataset, we gather information on presence of SPRAR centers across Italy and on the number of available beds of each center. Although the number of available beds does not faithfully represent the actual presence of immigrants (some of the centers might be under or overcrowded), this variable may nevertheless proxy for hosted refugees' presence. This information is publicly accessible consulting the annual reports and documents published on the SPRAR website[19].

[17] The dataset is available from the Italian Ministry of Interior at the website: https://elezionistorico.interno.gov.it
[18] Data have been kindly provided by Statistical Office of the Ministry of Interior - Dipartimento Libertà Civili e Immigrazione.
[19] www.sprar.it/pubblicazioni

Along with this data, we extract information at province level on unemployment rate of the working age population (i.e. individuals aged 15 and over) and on crime rates (per electorate) from ISTAT[20].

Another source of data, related to the broadband availability in Italy was provided by Infratel on behalf of the Ministry for Economic Development, which provides data about broadband diffusion at province level. In particular, this database tracks the share of households in each municipality from 2012 to 2015 that have no broadband access at a speed equal to 2 Mbs/second or above. After 2015 the data collection procedure changed. For this reason, we use separately municipality-level data on broadband diffusion in 2018 as published on the AGCOM (Autorità per la Garanzia nelle Comunicazioni)'s website. As for Infratel data, this recent information allows us to compute the share of households without internet connection at a speed at equal to 2 Mbs/second or above.

4.2 IMMIGRATION-RELATED TWEETS

We also use data from Twitter to derive the frequency of tweets containing immigration-related words from 2010 to 2018 at the province level.

First, we gather a list of users that tweet from the province of interest, i.e. where there is at least one voting municipality in the year of interest. We do this using the Twitter Streaming API, which returns a (supposedly) random sample of approximately 1% of the tweets produced at the time of download[21]. We then implement a first filter on the tweets by identifying "Italian" tweets (and retaining only those) performing a keyword matching on the text of the tweets returned by the streaming API. To do so, we selected a list a of 155 words commonly occurring in the Italian language. Users whose tweets contain words that belongs also to this list were stored.

Second, once we have collected the first list of users, we apply a further, stricter filter. We retain only the data of the users whose position (publicly available from their profile) is attributable to an Italian city. The additional benefit of this filter is a reduction in the number of false positives from the previous step. The result of this second step is a list of users whose city of residence can be inferred from the personal description on their account.

Third, we use the Twitter REST API to download all the tweets of these users in a pre-established period (2010 – 2018).[22] Fourth, the text of those tweets is analyzed through keyword

[20] We compute the crime rate at province level as the ratio between the total number of crimes reported by the police in a given province, over the annual-regional average of the number of crimes. We also weight this variable by the number of crimes committed by immigrants at national level.

[21] The Streaming API only returns at most 1% of the tweets on Twitter at a given moment. Once the volume of the query is above 1% of all of the tweets on Twitter, the response is sampled. Unfortunately, the way in which Twitter samples the data is unpublished. Recent research has shown that there is evidence of bias in this sampling mechanism under certain condition (see for instance Morstatter et al. 2013 and 2014).

[22] Tweets that were deleted, either by the user or by twitter, during the period of our analysis, are not collected.

matching to detect whether the user has actively discussed about migrants. The analysis is performed by detecting the presence of the following keywords in the content of the tweets: "migrant*", "rifugiat*", and "immigrat*" (migrant/s, refugee/s, immigrant/s). Aggregating the results by province and time (month-year), we obtain a measure of the pervasiveness of the topic over time and across provinces.

4.3 THE "EXPOSURE TO ARRIVALS" INDEX

In order to capture the effect of perceived immigration on electoral outcomes, for each municipality we construct an index of exposure to immigrants arrived at Italian ports. We exploit the plausibly exogenous match between nationalities in the boats approaching the Italian ports before the elections and the nationalities residing in the voting municipalities.

First, we compute the shares of immigrants of nationality *j* in municipality *i* as the ratio between the number of immigrants of nationality *j* and the total number of immigrants in the municipality *i*. Then, as shown in equation (1) below, in the time period between the 1st of January and the election day, for each municipality *i* and for each single ship landing *k*, we sum up these shares for nationalities *j* of immigrants arriving in boat *k* that are represented also in the municipality *i*. We consider nationality *j* as represented in municipality *i* if the municipality has at least one resident migrant of the nationality *j* at the time of the landing.

Then, for each arrival *k*, we sum up the number of incoming immigrants whose nationality matches with that in the municipality *i* ($Immigrants_{j,k}$), and multiply it by the sum of shares of immigrants with matching nationalities in that municipality ($ShareImmigrants_{j,i}$). This step is important for our estimation strategy since it allows to exploit within-year, across-municipality variation in exposure to arrivals. Assuming that, upon arrival immigrants tend to go where they have a large pre-existing network of co-nationals, municipalities with a large (small) share of official migrants whose nationality matches with those of the incoming migrants are more (less) exposed – and more sensitive – to the arrivals.

To take into account the time distance between the date of arrival and the date of election, we also weight the index by the inverse of 1 plus the logarithm of the number of days between the day of arrival and the day of election ($WDistance_k$).

The resulting index is a measure of municipal exposure to each single boat landing *k* occurred in the period preceding the election. The final exposure index is an arithmetic average of the exposure indices calculated for each single arrival episode *k*.

In sum, our exposure index is a measure of intensity of exposure at municipal level that considers both the share of migrants in the municipality and the number of entrant migrants, whenever

their nationality matches. It can be interpreted as the average number of incoming immigrants expected to arrive in the municipality, because of boat landings before elections[23].

$$Exposure\ Index_i = \frac{\sum_{j,k} Immigrants_{j,k} * ShareImmigrants_{j,i} * WDistance_k}{N_k} \quad (1)$$

We compute the index considering different time windows. First, we consider all the boat landings occurred between the beginning of the year and the day of election (usually in May). Then, we repeat the procedure changing the time-window so to include all landing episodes occurred 30, 60 or 90 days before the day of elections.

4.4 ELECTORAL OUTCOMES

Turnout and votes distribution *per-type* of votes are our main outcome variables. Turnout is calculated as the ratio between number of valid votes and the total electorate. Valid votes are computed as the difference between the number of people who voted, net of blank and null ballot papers. Electorate is the number of individuals entitled to vote.

Distribution of votes allows us to directly observe political preferences of citizens. We group votes into four non-mutually exclusive categories, and compute their relative share of votes. Firstly, we consider protest vote, which groups together null and white votes.

Secondly, we use anti-immigration votes (i.e. the sum of preferences expressed in favor of right and extreme-right parties[24]). To categorize anti-immigration parties, we group together all those parties characterized by a strong rhetoric against immigrants and ethnic minorities, that publicly refer to migration flows as a concern for the national security, that aim at national borders closure, and that place domestic population in a position of primacy against foreign citizens[25].

Thirdly, we consider populist votes as the sum of votes in favor of populist parties. To distinguish between populist and mainstream parties we mainly rely on the seminal work by Van Kessel (2015), who classifies as populist those parties holding political ideas that hinge mainly i) on

[23] The following example clarifies the procedure. Consider 2 municipalities *A* and *B*. Municipality *A* has 5 immigrants of nationalities *x,* 10 *y,* and 5 *z*. Municipality *B* has 10 immigrants of nationalities *x,* 20 *q,* and 20 *w.* Suppose that, before the election day, there are two ships landing on the Italian coasts (*1* and *2)*. *Boat landing 1* counts 20 immigrants of nationality *x,* 30 of nationality *y,* and 50 of nationality *q*. *Boat landing 2* instead is composed by 20 immigrants of nationality *x, 20* of nationality *y,* 20 *q* and 20 *w.* Then, municipality *A* has an index of exposure equal to 33,75 (67,5/2), while municipality *B* of 51 (102/2). A possible concern is that this index does not directly consider the relative weight of the immigrant population with respect to the total population. Two municipalities with the same number and type of foreign nationalities could be equally exposed even if one of the two hosts more migrants than the other in relative terms. As a potential remedy, we control for both the size of the electorate and the share of regular migrants residing in the municipality.

[24] Extreme right parties are Casapound, Forza nuova, Movimento Sociale Italiano and Alleanza Nazionale.

[25] The group includes Lega, Forza Nuova, Casa Pound, Movimento Sociale Italiano and Alleanza Nazionale

the distinction between *'*the people', referred to as the unique good part of the society, and *'*the elite*'*, ii) on the supremacy of the former over the latter, and iii) on motives of national sovereignty[26]. Finally, we also take into account Northern League coalition, i.e. the sum of all the votes directly collected by 'Lega' and strictly related parties[27]. Different definitions of populism are discussed and used as further robustness checks in Section 9.4.

4.5 DESCRIPTIVE STATISTICS

Our dataset contains municipalities that voted twice in the time period between 2010-2018 at a distance of five years from the first to the second election. From 2010 to 2018, Italy has been intensively exposed to immigrants' arrival. During this period there have been 29,242 boat landings, with a total of 725,915 immigrants reaching the Italian coasts. The majority of them arrived between 2014 and 2017 (Figure 2).

From 1st of January 2010 to 31st December 2018 more than 725,000 immigrants (110,000 of which under 18 years old) arrived in Italy, distributed across 7,000 illegal boat landings (See Figure A2 in Appendix). The vast majority of them occurred in Sicily (4,909) (Table 1). In our sample, we count 92 different nationalities from the 4 continents (Africa, Asia, Latin America and Europe). Although usually nationality is self-declared and could not be checked through official records, the vast majority of immigrants arrive from Africa (more than 77% of the total, especially from the Western countries, 38%, and Eastern, 25%), followed by Asia (around 23%, of which 15% are from Western Asian countries) and Europe (less than 1%, mainly from Ukraine and Albany) (see Table 2). The most represented nationalities from Africa are Eritrea and Nigeria (14 and 12% of the total, respectively). Syrians represent the 9% of the arrivals.

[Tables 1 and 2 around here]

As far as the exposure index is concerned, Figure A3 in Appendix shows its distribution across Italian municipalities in the first election round election (years 2010 – 2013, Panel A), and in the second election round (years 2015 – 2018, Panel B). More specifically, our exposure index averages at 1.4 and varies from a minimum value of 0, due either to the absence of migrants within the municipality or to the lack of matches between nationalities of arrived and resident migrants, to a maximum of 32.15. Reflecting arrivals on Italian coasts, our index of exposure grows steadily across all macro-area from 2012 to 2017, to sharp decline in 2018 (Figure A4, Panel A). As illustrated in

[26] Populist parties are Forza Italia, Il Popolo delle libertà, Lega and Movimento 5 Stelle.
[27] Lega list contains votes expressed for Lega, Lega Nord and Lega Padana.

Figure A4, Panel B, in Appendix, on average northern Italy is the area mainly exposed to the arrivals as measured by our index.

On average, roughly 2 out of 3 citizens voted in the municipal elections (67.6%). As reported in Figure A5, Panel A, in Appendix, average turnout steadily declined since 2010. The decline in voters' turnout couples with an increase in the share of protest votes, which has grown sensibly since 2011, reaching the peak in 2017 elections (Figure A5, Panel B).

On average, the share of votes in favor of anti-immigration parties is 4.4%, with peaks of 100% as in Moriago della Battaglia (Treviso) in 2018, or Rovere' Veronese (Verona) in 2011. The share of populist votes follows a similar pattern, with an average of 5.9% of preferences and a maximum of 73.7% in the aforementioned municipalities. However, as shown in Figure A6, Panel A, in Appendix, votes in favor of extreme-right and populist parties has grown dramatically since 2015 in Italy. The most pronounced increase has been registered in northern and central Italy, while islands are less inclined to vote for extreme-right and populist parties over the period considered (Figure A6, Panel B).

The number of available beds in SPRAR centers averages to around 340 units per municipality, while the share of resident migrants averages at 6%. Ageing index, calculated as the ratio between the share of elder individuals (i.e. over 65 years) and the share of pupils and children (i.e. from 0 to 14 years), is a compact index informing about the age structure of the municipality. It ranges from 0.24 to 56. As of criminality, proxied for by the number of reported crimes, provinces in our sample suffered, on average, 0.008 crimes per capita in 2010. For what concern unemployment rates, northern regions of Italy are historically those that on average enjoy lower rates. In particular, the province of Cuneo (Piemonte) in 2010 had a very low rate, less than 4%. By contrast, southern regions suffer it most. Several provinces, mostly in Calabria and Sardinia, reached levels of unemployment greater than 30% in 2015. Taxable income follows a very similar pattern, with northern regions being richer than central and southern areas.

In Figure A7 in Appendix we show the distribution of immigration-related tweets across Italian provinces, which include all municipalities for which we collected Twitter data (Panel A) or only those that voted at least once in the period 2010-2018 (Panel B).

Finally, we use the data on the digital divide from 2012 to 2015 as a proxy for access to political information through (social) media. Both data from Infratel and AGICOM highlight that, between 2010 and 2018, roughly 15% of municipalities in our sample are not served by at least 2Mbps broadband connection.

See Table 3 for the descriptive statistics and Table A1 in Appendix for further details on the construction of variables.

[Table 3 around here]

5. PRE-ELECTORAL LANDINGS AND IMMIGRATION SALIENCE

Figure 3 highlights, from a descriptive point of view, a correlation between the trend of occurrences of immigration-related tweets and refugee landings, especially in the election period. Trends, however, diverge in the 2018 elections, suggesting that perceived importance of immigration does not often match with actual inflows. In this section, we test econometrically whether the proximity of elections increases salience of immigration, and whether salience is amplified by the perception of refugee arrivals as proxied for by our exposure index.

To this purpose, we first carry out an event study testing for significant electoral trends in the frequency of tweets containing the words "refugee/s" or "immigrant/s" (and similar words referring to the topic). In particular, we estimate the following model:

$$T_{i,t} = \alpha_i + \delta_t + \sum_d \theta_d E_{i,t+d} + \sum_g \beta_g X_{i,t} + \varepsilon_{i,t} \quad (2)$$

where $T_{i,t} = \ln(1 + Imm\_tweets_{i,t})$ is the logarithm of the number of immigration-related tweets in province i and month t; α_i is a time-invariant province-specific effect reflecting the social and economic environment; δ_t captures common macro-level trends through year dummies; $\varepsilon_{i,t}$ is an i.i.d. error term; the set of additional controls variables X_i includes *i*) the yearly share of individuals aged 15-64 over the total population at province level, which adjust our sample for heterogeneity of the population that is most likely to tweet, and ii) the logarithm of the total number of tweets collected in province *i* and month *t*, i.e. $Total\_tweets_{i,t} = \ln(1 + Tot\_tweets_{i,t})$; $E_{i,t+d}$ is a dummy variable equal to 1 if a local election is scheduled in province *i* at time $t \pm d$, with d = {4,5},{2,3},{1}, i.e. from 4 to 5 months before or after the election month, from 2 to 3 months before or after the election month, and 1 month before or after the election month; the election month is the omitted category. We consider only the date of election in which most municipalities of province *i* were involved. We are interested in θ_d, which captures significant pre- or post-election trends of immigration salience, i.e. whether the importance of immigration increases or decreases *t* periods before or after the elections. We estimate the model through OLS fixed-effects regression, clustering standard errors at the province level.

Results are summarized in Figure 6. The orange line reports estimated margins of the frequency of immigration-related tweets for each period before and after the elections. Results confirm the descriptive pattern highlighted in Figure 3, with a significant increase in the number of immigration-related tweets one month before the election month. Immigration-related tweets peak one month after the elections and then decline two months later, when they stabilize at higher levels than those in the months preceding the elections.

[Figure 6 around here]

To understand whether changes in immigration salience mirror the actual arrivals of refugees, we estimate the same model as in eq. (2), yet with refugees landed in time *t* as dependent variable. More specifically, we estimate the following model:

$$L_t = \delta_t + \sum_d \theta_d E_{t+d} + \varepsilon_t \quad (3)$$

where the dependent variable is now $L_t = \ln(1 + Tot\_landings_t)$, where $Tot\_landings$ is the total number of refugees landed in month *t*. Since landings are at national level and vary only by months, we can rely just on time variation; hence, we now estimate eq. 3 through OLS with robust standard errors. The estimated margins described by the blue line in Figure 6 show a rather flat trend up to the third month after the election, further underlying that the number of refugees arriving to Italy is not substantially affected by local politics. The increase in the landings three months after the election, often corresponding to the summer months, may be a natural response to the favorable weather conditions[28]. The larger confidence intervals are due to the smaller sample size as we do not have variation in landings by province.

The most important result from these estimates is that, when comparing the two trends, perceived salience of immigration – as proxied for by immigration-related tweets – does not follow the actual trend of refugee arrivals. Salience increases before elections and decreases two months later, while refugee arrivals tend to raise only three months after the elections.

A potential limit to a causal interpretation of these findings stems from the peculiar structure of the data. First, as in many other studies relying on social-media data, the sample is not randomly

[28] Consider that significant pre- or post-electoral trends in arrivals would not affect our main estimation strategy since we exploit variation in nationality composition (and not in the overall number of refugees) to measure immigration exposure. Potential selection in nationality composition of the landings because of the local political cycle is, from a theoretical point of view, very unlikely; we further exclude this possibility by means of an event study described in Section 7.

selected; the characteristics of Twitter users might not be consistent with those of the representative national population, not ultimately because of unobserved selection into social media. Furthermore, we had to aggregate data at province level to increase statistical power, because municipality-level data provide us with few observations. Despite all these caveats, overall these results suggest that Italians do respond to refugee landings, yet their responses seem to be driven mainly by the political debate, rather than the actual severity of immigration.

In order to assess whether the pre-electoral increase in the salience of immigration is larger in provinces where citizens are mostly threatened by the potential arrival of refugees, we compare pre- and post-electoral trends of immigration-related tweets by high vs. low values of exposure index described in Section 4.3. The exposure index, which is originally constructed at municipality level for all the municipalities in our sample, is now aggregated by province and year. We estimate equation 2 interacting the election trend dummies (E_{t+d}) with an indicator equal to one if province *i* in a given year is above the median value of the exposure index as calculated on the entire sample[29]. In this estimate, we use as controls i) the yearly share of individuals aged 15-64 over the total population at province level, ii) the share of immigrants residing in the voting municipalities nested into our sample provinces, and iii) number of available SPRAR beds divided by total population (measured at province level).

Results are reported in Figure 7 and show that the increase in salience is larger for the most exposed provinces 2-3 months before elections; salience reaches a significantly higher level one month after the elections, and converges to the trend of the less exposed provinces 4-5 months later. This piece of evidence suggests that immigration salience in the electoral period is mainly driven by those provinces where the perceived threat of immigration is higher.

[Figure 7 around here]

6. THE IMPACT OF REFUGEE ARRIVALS ON POLITICAL OUTCOMES

Having traced a link between actual and perceived arrivals and immigration salience in the previous section, we now assess the political effects of perceived exposure to immigration for all the voting municipalities in our sample. To this purpose we estimate a reduced-form equation of immigration on voting behavior as described by the following equation:

[29] We have also estimated the model allowing the median of the exposure index to vary by year. Results are similar and available upon request.

$$\Delta Votes_{it} = \beta_1 \cdot \Delta Exposure\ Index_{it} + \beta_2 \cdot \Delta Share\ of\ migrants_{it} + \beta_3 \cdot \Delta Municipality\ Characteristics_{it} + \delta_t + \Delta\epsilon_{it} \quad (4)$$

The dependent variable is the difference in turnout, protest votes or vote shares for anti-immigrant, populist and Northern League parties between two elections at municipality level. For example, $\Delta Votes_{it} = (turnout)_{it} - (turnout)_{i,t-1}$ in case the dependent variable is political participation.

We measure the change in the exposure to migration at municipality level by $\Delta Exposure\ Index_{it} = Exposure\ Index_{it} - Exposure\ Index_{i,t-1}$ where $Exposure\ Index_{it}$ is our treatment variable defined in eq. (1).

We measure the change in immigrant share at municipality level as $\Delta Share\ of\ migrants_{it} = Share\ of\ migrants_{it} - Share\ of\ migrants_{i,t-1}$, where $Share\ of\ migrants_{it}$ is the population share of immigrants (excluding those with Italian citizenship) living in municipality i at time t; this variable allows us to control for the pre-existing presence of migrants at municipality level. Since *exposure index* and *share of migrants* might be correlated, we estimate the model in eq. 4 without *share of migrants*. Results are consistent with those including both variables (available upon request).

Municipality characteristics is a vector including, as first differences, *Total SPRAR beds pc,* i.e. the total number of available beds in SPRAR centers per 1000 inhabitants at province level; this variable is used as a proxy for presence and size of refugee centers in order to control for the effect that direct contact with refugees and asylum seekers through refugee allocation has on voting behavior. *Municipality characteristics* also include *Electorate,* i.e. the number of individuals entitled to vote at municipality level, which takes into account the changes in the size of the electorate due, for instance, to the historical variation in the dimension of the cohorts entering the electorate for the first time; *Number of mayors,* i.e. the number of mayor candidates at the elections at municipality level, which allows to control for political competition (higher values imply higher competition); *Share of taxable income greater that 120,000 euro,* i.e. the share of citizens with annual personal taxable income greater that 120,000€, which takes into account that political support for immigration may change with individual income; *Ageing index,* i.e. the ratio between the share of elder individuals over 65 years old and the share of children between 0 and 14 years old, to capture demographic dynamics. All these controls are included for each municipality i at time t.

We also include time fixed effects δ_t to control for common factors specific to each year such as, for instance, the business cycle. All municipality time-invariant characteristics are net out by the first-difference estimator. In all the specification, standard errors are clustered at province level to account for within-province error correlation that could derive, for instance, from geographical spillovers (e.g. voters' reactions to perceived immigration to neighboring cities). The main parameter

of interest is β_1, which identifies the effect of the change in the exposure to migration across municipalities on changes in the electoral outcome.

Endogenous sorting of immigrants does not represent a serious concern in our framework. It is unlikely that, in each landing episode preceding the election date – which has been exogenously determined –, the composition of the incoming nationalities is affected by the *local* political process. For this type of sorting to be a problem, refugees should be able to schedule the day and choose the destination city in response to the political process in that city. We can exclude this possibility because, at the departure, migrants do not enjoy freedom of choice regarding the day of leaving and the day and place of arrival (see Section 2.3 for more details on the Italian migrants' reception system). Migrants could not exactly know *when* they will travel, *when* they will land, and *whether* and *when* they will eventually reach the municipality they intend to go. Controlling also for the share of regular immigrants and presence of SPRAR centers, our treatment variable (exposure index) would therefore capture to extent to which the perceived *threat* of refugee arrivals – as clamored in pre-electoral news – affected voting behavior.

6.1 *RESULTS: PERCEIVED IMMIGRATION AND POLITICAL PARTICIPATION*

This section investigates the effects of intensity of migration exposure on political participation. The dependent variable is the turnout rate at municipality level. Table 4 reports the estimates for our main coefficient of interest, e.g. exposure index. We start by measuring the index taking into account all the arrivals occurring from the beginning of the year to the election day (Table, 4 Column 1), and subsequently experiment with shorter time spans such as 1, 2 or 3 months (Table 4, Columns 2, 3 and 4), which would further exclude the possibility that refugees legally or illegally reach the municipality.

Results highlight that the increase in exposure to immigration causes a decrease in turnout, suggesting that the recent trends in immigration may have contributed to a surge of disaffection toward political participation. It could be the case, as suggested by Barone et al. (2016), that part of the center and left-wing voters, who are ideologically more in favor of a multiethnic society but are not happy about the immigration trends and regulations, have decided not to vote instead of directly voting for the center-right coalition[30]. This result is also confirmed by Edo et al. (2019) who find that high immigration increases abstention rates.

[30] In a different setting, Dustmann et al. (2018) document, instead, that a higher share of allocated refugees leads to a higher share of individuals voting (e.g. increase turnout) in municipality elections but not in Parliamentary election. Steinmayr (2019) finds that turnout is not significantly affected by hosting refugees in a municipality. Dinas et al. (2019) show that overall turnout increased significantly in Greek islands receiving refugees, suggesting that the refugee crisis also acts as mobilizer of new voters who previously had not participated in elections.

To further explore the nexus between perceived immigration and political participation, we also consider, as dependent variable, the share of blank and invalid ballots. If citizens are not satisfied with any of the existing political parties and their immigration policies, then we should also expect an increase in protest votes. Accordingly, we find that exposure to arrivals has a positive effect on the share of blank/invalid votes (Table 5), which is consistent with the idea that the prospect of incoming refugees, as made salient in the media before the elections, has contributed to an increase in dissatisfaction with how mainstream parties address the issue (see again Barone et al. 2016 for a similar result).

[Tables 4 and 5 around here]

6.2 RESULTS: PERCEIVED IMMIGRATION AND SHARE OF VOTES

This section investigates the effects of the intensity to migration exposure on support for populist and far-right candidates. The parameter of interest now identifies the effect of the change in the exposure to arrivals on the change in votes for anti-immigration parties (Table 6), populist parties (Table 7) and Northern-League candidates (Table 8). As before, we measure the index taking into account all the arrivals in the months preceding the election day, and then with shorter time spans (one, two, or three months). Results show a positive effect of perceived immigration on votes for center-right coalitions, which have a political platform less favorable to immigrants.

More specifically, Table 6 summarizes the results when the share of votes for anti-immigration parties is considered as dependent variable. Exposure to migration increases support for anti-immigration parties both when the index takes into account of all the arrivals from January 1st to the election day and when the other time spans of arrivals are considered.

Table 7 shows that the increase in the share of votes for populist parties is driven by exposure to arrivals independently from the time-window considered to measure arrivals.

Finally, Table 8 summarizes results for the share of votes for the Northern League. In this case, the sample is restricted to municipalities in the North macro-area, where the party traditionally enjoys higher consensus. Results document that exposure to arrivals increases support for the right-parties when the index includes all the arrivals since the beginning of the year as well as when considering shorter time spans.

[Tables 6, 7 and 8 around here]

7. ENDOGENEITY

A possible threat to our identification strategy may come from the spatial sorting of immigrants into municipalities, which could be endogenous to the political process. The general political attitudes or the unobserved characteristics of some municipalities might induce immigrants from a specific country of origin to settle in or to move away from more or less favorable places (e.g. Fratesi et al. 2019). Location decisions of this kind might bias our index as it exploits the local distribution of immigrants by nationality. In other words, the estimated effect of perceived immigration could reflect the endogenous sorting in nationality composition of local immigrants, which could stem from the political process or other unobserved factors affecting immigration decisions and voting behavior. We address this concern in four ways.

First, we re-compute our exposure index by fixing at the first election year the local share of immigrants whose nationality matches with that of the incoming refugees. This allows us to exclude migrants' relocation decisions that may be affected by electoral outcomes that are favorable or unfavorable to them. In other terms, we match the time-varying nationalities in the boat landing with the corresponding nationalities residing in each voting municipality as measured only in the *first* of the two election years. The matching nationalities residing in the Italian municipalities are, therefore, treated as time-invariant. Results are reported in Tables A2 in Appendix and are consistent with our baseline estimates.

Second, we implement an instrumental variable strategy similar to that pioneered by Card (2001) and instrument our index with the historical settlement patterns of immigrants. The latter would reasonably affect recent political outcomes only through the recent spatial distribution of migrants; it is also expected to affect their present-time spatial distribution since immigrants tend to move to areas where their co-nationals have already settled in the past. We construct an historical lagged version of the exposure index, which we use as an instrument in the baseline estimates. More specifically, we replace the nationalities residing in each municipality in the two election years (which are matched with the landing nationalities) with those computed in 2004, which is the oldest (reliable) data we can get from the National Statistical Office's (ISTAT) website. This approach might also mitigate potential measurement-error issues, which could be induced by the presence of illegal immigrants not entering the official tracking or by mis-reporting or under-reporting of migrants' movements. First and second stage results are reported in Table A3 in the Appendix. As expected, the 'historical lagged' version of the index positively predicts the index calculated at time t[31], and – most important – second stage estimates confirm the baseline results.

[31] We are also reassured that the instrument is not weak, since the F-statistic for testing whether the instrument coefficient is equal to zero is always statistically significant and well above the threshold value of 10 suggested by Staiger and Stock (1997).

Third, we also perform a placebo analysis by looking at municipalities for which electoral outcomes cannot be affected by the sea arrival of refugees that we are considering. As already mentioned, we use all Italian municipalities that voted twice in the period 2010 to 2018, with a distance of 5 years between the first and the second election. Hence, we apply the same identification strategy as in eq. 4 using, for each municipality, the electoral outcomes obtained ten years earlier (e.g. 2000-2008). The exposure effect in these 'placebo' estimates should not be significantly different from zero since past political outcomes could not be affected by the boat arrivals that occurred ten years later. Results are reported in Tale A4 in the Appendix. The estimated 'placebo' effect of exposure is indeed not significantly different from zero in 95% of the cases.

Fourth, we carry out an event study to check for significant pre- and post-electoral trends in the spatial distribution of immigrants by nationality of origin. More specifically, we estimate the following model:

$$M_{j,i,t} = \gamma_i + \delta_t + \sum_d \beta_d E_{i,t+d} + \varepsilon_{i,t} \quad (5)$$

where $M_{j,i,t}$ is the share of immigrants of nationality j living in municipality i at time t, γ_i is a time-invariant municipality-specific effect reflecting the social and economic environment (e.g. the quality of institutions) in which elections take place, δ_t is a year effect that is common to all municipalities, and $\varepsilon_{i,t}$ is an i.i.d. error term. $E_{i,t+d}$ is a dummy variable equal to 1 if an election is scheduled in municipality i at time $t + d$, with d = {-1, -2, +1, +2}, i.e. one and two years before and after the election year (omitted). The vector of coefficients of interest from eq. 5 is β_d, which measures the impact of the distance in years of a given year t from the year of the election on the share of immigrants M. When d= -2 and -1, β_d captures pre-electoral trends of a given nationality one and two years *before* the election year, whereas when d= +1 and +2, β_d captures post-electoral trends of a given nationality one and two years *after* the election year. We estimate with OLS j regression models, i.e. for all 92 nationalities represented in the boat landings. Results are reported in Table A5 in the Appendix. They suggest that only for six out of 92 different nationalities there are pre-trends or post-trends that are statistically significant at 10% level, and for only two of those there are pre- or post-electoral trends that are statistically significant at 5% level. These figures suggest that pre- or post-electoral trends of immigrant nationalities in response to the local elections do not represent a serious threat to our identification strategy.

8. THE ROLE OF MEDIA EXPOSURE

The proposed mechanism underlying our results is the increased salience of (and anxiety for) immigration through formal and informal media coverage of arrivals during electoral campaigns. The analysis on Twitter data shows that immigration salience increases in response to landings, yet only during the election period and in provinces where immigrants are more expected to arrive. In this section, we go deeper into the role of media in the relationship between perceived exposure and electoral outcomes.

Citizens may be informed about the nationalities of the incoming refugees through different media sources, e.g. TV, newspapers and social media. We test the role of media by looking at broadband diffusion, which is less subject to citizens' selection into social media. If voters have access to information on landings (and on the nationality distribution of incoming refugees) through social media, the effect of exposure should be higher in municipalities where broadband access is more widespread. To test this hypothesis, we use the share of households *without* broadband connection or with access to internet speeds below 2Mbs/second as in Schaub and Morisi (2019).[32] Unfortunately, the data on digital divide we received from Infratel contains only information from 2012 to 2015; after 2015 the data collection strategy changed and was no longer implemented by the same company.

Since the time span of the broadband connection variable is limited, we imputed the data for 2010, 2011 and 2016-2018 by averaging, for each municipality, the share of households with no or slow internet connection over the time period for which we have data points, i.e. 2012-2015, and extend the obtained values to the missing periods (Table 9). As a robustness check, we use data on digital divide available from AGICOM for 2018 (Table A6 in Appendix).

We find that, in the most cases, the effect of exposure is mainly led by municipalities with higher internet access (first and second tertile of digital divide for the macroarea); on the contrary, for municipalities where broadband access is more limited the effect is not statistically significant or weakly so, and smaller in magnitude (Table 9, Table A6 in Appendix).

[Table 9 around here]

[32] Campante et al. (2018) show that the diffusion of broadband internet in Italy depends on the characteristics of the telecommunication network as well as geographical factors that are not related to strategic or market decisions made when the telecommunication network was implemented. Among the factors influencing where providers implement/extend broadband connection, Gruber et al. (2014) underline the role of urbanization. Such a municipal characteristic is taken into account in our within-municipality estimation strategy, assuming that urbanization does not vary substantially in the 5 years between the two elections. In further robustness checks we also control for density; results do not change (available upon request).

Results provide support to our main hypothesis. The inflow of refugees affected voters' behavior through access to (often biased) informal media, independently from personal interactions with immigrants. Since supporters of mainstream parties tend to rely more on the traditional media as main sources of political information (Shaub and Morisi 2019), these results also suggest that the effect of refugees' arrivals can be in part explained by the crowding-out of internet over traditional (and potentially more informative) media as main source of political information (e.g. Gentzkow 2006; Campante et al. 2018).

9. HETEROGENEITY AND ROBUSTNESS CHECKS

9.1 CRIME

A possible channel behind the effect of migration exposure on far-right voting is the perception that immigration can increase the level of criminal activities (Bianchi et al. 2012; Barone et al. 2016; Bove et al. 2019). To test this source of heterogeneity, we split the sample in tertiles according to the values of crime per capita in the province (Table A7, Columns 1 to 3 in the Appendix). The sample is split, by macro-area, according to the distribution of the respective variables observed in 2010.

However, we do not know whether these crimes are committed by natives or by immigrants. As data on crimes committed by immigrants are not available, we use information on the number of crimes, disaggregated by type of crime, committed by immigrants at national level. Each crime committed by natives at province level has been weighted by the corresponding number of crimes of the same type committed by immigrants at national level (Table A7, Columns 4 to 6 in the Appendix). The higher the crime rate in a given municipality, the higher may be the perception (often influenced by mass media) that immigrants are associated with criminal activities, thereby leading to high support for right-wing parties. However, we could also expect an opposite result if residents of high-crime areas get used to local delinquency and hence are less sensitive to a marginal (perceived) increase in delinquency associated to the new inflow of immigrants.

Results provide support to this second argument, since only in low-middle crime municipalities there is a negative and significant relationship between migration exposure and political participation (Table A7, Panel A) and a positive and significant relationship between migration exposure and protest votes (Table A7, Panel B). Furthermore, in these municipalities, a stronger positive relationship exists between migration exposure and anti-immigration and populist votes (Table A7, Panels C and D). This evidence suggests that municipalities that are less exposed to crime are also more sensitive to the prospect of future arrivals, perhaps because citizens expect an unprecedented increase in delinquency.

9.2 GROSS INCOME PER CAPITA, POPULATION SIZE & UNEMPLOYMENT

Evidence in the literature on immigration and political attitudes and electoral outcomes suggests that gross income per capita matters. Immigration inflows produce large increases in the votes obtained by far-right parties especially in towns with higher income per capita (Dustmann et al. 2018). We therefore split the sample in tertiles according to the values of municipality's taxable income per capita, by macro-area, according to the distribution of the respective variable observed in 2010.

Results in Table A8 in the Appendix show that the main effect of exposure to arrivals is significant only in the cities with a high taxable income per capita. This result is in line with the economic hypothesis of self-interest, which posits that individuals respond to the threat of immigration according to their own economic concerns (Dustmann et al. 2018).

Evidence in the literature on immigration, political attitudes and electoral outcomes suggests that municipality size matters. Immigration inflows produce large increases in the votes obtained by far-right parties especially in small towns, while leaving large towns mostly unaffected (Barone et al. 2016; Dustmann et al. 2018). Rather than comparing selected percentiles of the population distribution to identify large and small cities, which might deliver highly unbalanced samples, we compare tertiles of municipality's population. Tertiles are computed by macro-area and according to the distribution of the respective variable observed in 2010. Results in Table A9 in Appendix show that the main effect of exposure to arrivals is only significant in the largest cities. A possible explanation to this finding is that large cities were among the first in attracting migrants. Therefore, in these municipalities refugees are more expected to arrive, thereby increasing the perception that new arrivals represent a threat as well as the salience of resident immigrants. This may well explain the significant reaction of large town to the pre-electoral landings and to the anti-immigration rhetoric associated with the arrivals.

Furthermore, economic theory suggests that changes in attitudes of natives towards migrants and the increased support to anti-immigration parties are driven by concerns about labor-market opportunities. Since those providing substitutable skills might lose the most from immigration, low-skilled immigrants are perceived as a threat because of the tougher competition for low-skill jobs. Therefore, we would expect that support for right-wing parties is higher in municipalities characterized by high unemployment, and hence by a stronger (perceived) labor market competition stemming from the new arrivals. To further explore this issue, we use data on unemployment at province level splitting the sample in tertiles according to the distribution of the unemployment in the macro-area observed in 2010 (for a similar analysis see Halla et al. 2017). Results in Table A10 in the Appendix show that, consistent with previous studies, the main effect of exposure to arrivals has

the strongest impact on turnout as well as on protest, far-right and populist votes in communities with high unemployment (Table A10, Panel A, B, C and D). This is consistent with the idea that perceived immigration hurts natives supplying production factors closely substitutable by those of the immigrants. Therefore, far-right parties might be more appealing for voters whose job opportunities are more at risk in the prospect of low-skilled immigration. As a consequence, the relative economic insecurity associated with the possibility of hosting refugees would push voters in high unemployment areas towards far-right, populist parties in response to immigration episodes (Halla et al. 2017). Similarly, it can shift the disappointed supporters of mainstream parties towards protest voting.

9.3 COMPETITION FOR PUBLIC SERVICES

Immigration also has an impact on public finance and policies (Halla et al. 2017). Indeed, the expected financial burden associated with low-skilled immigrants, who are those more likely to be net recipients of welfare (Otto and Steinhardt 2014), would also increase electoral support for anti-immigration parties. Higher degree of perceived threat from immigration inflows impact negatively tax morale, the willingness to pay taxes (Nemore and Morone 2019). Increased immigration has negative effects on natives' attitudes towards redistribution, driven by voters supporting center- and the right-wing parties (Dahlberg et al. 2012). If more immigrants are perceived to arrive, natives might expect fiercer competition for public services, such as compositional amenities stemming from neighborhoods, schools, and workplaces, thereby increasing anti-immigration sentiments (Edo et al. 2019). The prospective increase in immigration rates could be associated by natives with a consequent rise in the share of immigrant relative to native children. This could turn into further competition for local childcare services. For instance, areas with a high share of population in early schooling may be more sensitive to arrivals of migrants if natives believe that immigrants will get priority school admissions.

To assess the role of competition for public services, we split the sample according to the share of children aged 0-4 by macro-area, according to the distribution of the respective variables observed in 2010 (for a similar analysis see Barone et al. 2016). The intuition is that the higher the share of native children, the higher may be the perception that immigrants might 'steal' school admissions from the natives' citizenship rights. Hence, we divide municipalities in tertiles according to the share of children aged 0-4; tertiles are computed for each macro-area. Results, reported in Table A11 in the Appendix, provide support to the aforementioned hypothesis. Perceived immigration decreases turnout (Table A11, Panel A), increases protest votes (Table A11, Panel B) and increases vote for the anti-immigration and populist parties (Table A11, Panel C and D) in municipalities with

a higher share of children. This suggests that the perception that immigration can be a treat to the local welfare also plays a role in voting behavior.

9.4 ALTERNATIVE DEFINITIONS OF POPULISM

One limit to the use of Van Kessel's strategy to group populist parties is that it focuses exclusively on parties with political representation in the national parliament[33]. Therefore, strictly relying on Van Kessel's classification would imply to consider as non-populist a set of minor parties that instead fit well the criteria.

Therefore, we re-estimate our model applying another widely used benchmark to identify populist parties, the Chapel Hill Expert Survey (CHES)[34]. The 2017 survey scores 132 political parties in 11 European countries, over a long list of dimensions, through questionnaires conducted with experts about European political parties. The survey uses experts' opinion to estimate the ideological and political positions of each representative party. Aassve et al. (2018), for example, consider as populist those parties with an average score higher than 6, over a maximum value of 10, on the question "the people, not politicians, should make the most important decisions". However, also CHES only focuses on political parties that are representative at national level. In order to overcome this limit, as in Aassve et al. (2018) we construct a further set of populist parties[35]. We look at parties' political program and include in the list of populist parties a number of other minor parties that: i) concurred in municipal elections, ii) according to our judgement, satisfy Van Kessels' conditions, and iii) score higher than 6 on the aforementioned CHES question. The parties we include are: Casa Pound, Il Popolo della Famiglia (both right wing parties), and Potere al Popolo (left wing). Although often present in media, considered together these parties collected less 3% of preferences in last Italian elections (March 2018).

Importantly, our main results using this alternative definition of populism do not change substantially (Table A12 in the Appendix).

9.5 ECONOMIC MAGNITUDE AND ALTERNATIVE FUNCTIONAL FORMS

The main results show that, in municipalities where refugees are more expected to arrive, participation decreases, whereas protest votes and support for extreme-right parties, populist and anti-immigration parties increase. Considering all the arrivals occurring from the beginning of the year to

[33] Van Kessel lists as populist parties Lega Nord, Movimento 5 Stelle, Fratelli d'Italia and Popolo delle Libertà.
[34] The unique difference between Van Kessel and Chapel Hill Expert Survey (CHES), is that the latter consider as populist only Lega Nord, Movimento 5 Stelle and Fratelli d'Italia.
[35] Using the CHES categorization without the correction suggested by Aassve et al. (2018) produce very similar results (available upon request).

the election day, a one standard-deviation increase in the exposure index leads to a decrease of 0.55 percentage points in turnout and to an increase of 0.31 percentage points in protest votes (Tables 4 and 5, Column 1). Furthermore, it leads to a decrease of 0.55, 1.19 and 0.86 percentage points in the share of votes for anti-immigration parties, populist parties and Northern League, respectively (Tables 6, 7 and 8, Columns 1). These are non-negligible effects considering that in our sample, on average, turnout is around 65%, the share of protest votes is around 3.8% and the anti-immigration parties', populist parties' and Northern League overall vote shares is around 4.3%, 6.3% and 4.1%, respectively.

We also repeat the estimates considering a different functional form for the main variables of interest. When the dependent variables as well as the exposure index are expressed in logarithms, β_1 in eq. 4 can be interpreted in terms of elasticity, i.e. it measures the percentage point variation in the electoral outcome induced by 1% increase in the exposure index. Results in Table A13 in the Appendix show that an increase in exposure by 1% decreases turnout by about 0.6% points (Table A13, Column 1), while it increases protest votes by 0.5% (Table A13, Column 2) and votes for anti-immigration, populist and League parties by 0.9%, 2% and 1.3%, respectively (Tables A13, Columns 3, 4 and 5), when we use the index including the arrivals that occurred from the beginning of the year to the election day.

9.6 DIFFERENT TIME-WINDOWS

As an additional robustness check, we re-estimate our baseline models using different time-periods for the construction of the exposure index. More specifically, we consider all the arrivals occurred 0-30, 30-60 and 60-90 days before the elections, and add the resulting indexes as separate variables to the estimates.

Results, reported in Tables A14 in the Appendix, suggest that estimated effect of exposure is significant only when the time window 0-30 days before elections is considered. This piece of evidence underlines that the exposure index is likely to capture the effects of the anti-immigration campaign, rather than the effects of the real inflow of refugees that might have occurred (legally or illegally) after the arrivals. For *real* inflow to matter, we should expect a significant increase in the coefficient of the exposure index when expanding the time-window to 30-60 or 60-90 days before the elections, i.e. considering a larger time-span so to include regular or irregular refugees who might have time and chances to reach a given municipality. However, we do not find empirical support for this hypothesis since the effect of exposure is stronger for landings occurring mainly within 30 days before the elections, i.e. when desired destinations are less likely to be reached.

10. CONCLUSIONS

This paper explores the effects of perceived immigration on voting behavior in Italy. To this purpose, we rely on a reduced-form identification strategy that exploits two main sources of exogenous variation. First, we rely on the predetermined calendar of mayoral elections occurring every five years, and according to a staggered electoral schedule, in about 2,700 Italian municipalities. Second, we build an index of exposure that exploits the (plausibly) exogenous variation in the nationality of immigrants approaching the Italian ports from 2010 to 2018. In each year, exposure to arrivals varies at the intensive margin across municipalities, with more (less) exposed cities having larger (lower) share of regular immigrants with the same nationality of those approaching the Italian coasts before the elections.

Since we also control for the local share of regular immigrants, our reduced-form estimates capture the additional role that the arrival episodes, widely announced and discussed in the media before the elections, played on voting behavior. The main results show that perceived exposure to arrivals decreases turnout, whereas it increases protest votes and support for extreme-right, populist and anti-immigration parties. These results are consistent with previous empirical evidence (e.g. Barone et al. 2016) showing that voters of mainstream parties became gradually unsatisfied with the way immigration issues were addressed by politicians, and therefore reduced participation or expressed their discontent through protest voting or by voting for anti-establishment parties that propose immigration restrictions. Furthermore, Twitter data allow us to shed lights on immigration (mis)perceptions. First, we find that salience of immigration does not strictly mirror actual refugee arrivals, but, rather, the electoral cycle. Second, salience raises in proximity of elections more in provinces where the perceived threat of refugee arrivals – as proxied for by our exposure index – is higher.

Tests for heterogeneity of the effect provide further insights into the mechanisms underlying our results. First, we find that the impact of perceived immigration is driven by voters who are more exposed to a fast internet connection. Jointly with the results from Twitter, these findings offer support to our hypothesized pathway from exposure to arrivals to electoral outcomes: the increased salience of (and anxiety for) immigration during electoral campaigns played a key role in the recent changes in voting behavior. Second, cities with a high taxable income per capita, where individuals might respond to immigration based on their own economic concerns, are more sensitive to the prospect of a new inflow of refugees. Third, exposure to arrivals explains the rise of anti-immigration parties mainly in low-delinquency municipalities; citizens that are not used to high crime rates perhaps feel more threatened by the prospective, perceived increase in delinquency due to new

immigrants. Fourth, we find a stronger effect of perceived immigration in high-unemployment areas, where an expected increase in labor-market competition associated with new inflow of refugees offered larger support to anti-establishment parties. Consistent with this, the effects are also stronger in municipalities with higher competition for public services.

Our results could be also driven by two concurrent factors, i.e. the perception that new arrivals represent a *threat* and by the increased *salience* of local foreign-born communities. Regarding this second factor, Colussi et al. (2019) show that during Ramadan individuals perceive the share of foreign-born people living in their country as larger and tend to have more negative attitudes towards Muslims. Unfortunately, our data do not allow us to clearly identify whether the effect of exposure to arrivals is mainly due to threat or salience. This might be an open avenue for future research.

Two further considerations can be made, however, to partially address the issue. First, the inclusion in the regression of the stock of immigrants as a control, even though this does not isolate the effect of each single minority group, should also capture the effects that salience of local immigrants has on voters' perceptions. Second, looking at whether the effects of exposure decrease with distance from the main immigration ports would allow to understand further whether the "threat" mechanism is at work. For each boat landing to which a municipality is exposed, we calculate the distance in km of that municipality from the ports of arrival. Then, we average that measure over all the landings 'suffered' by the municipality, and compute tertiles by macro-area and year. Thus, we re-run our baseline estimates by restricting the sample to municipalities located at low, mid or large distance from the ports (i.e. first, second or third tertile, respectively). Results show that the effect of exposure on populist and anti-immigration parties is larger in municipalities that are closer to the ports (Table A15 in the Appendix). Assuming that perceptions of *local* immigrants with the same nationality as that of the incoming refugees does not vary by distance, these results suggest that the perceived threat of future arrivals is likely to a key driver.

Overall, our findings suggest that, as immigration becomes central in electoral disputes, misperceptions about the issue, jointly with perception of insecurity due to the socio-economic costs of hosting refugees, raises. Representation of immigration as a permanent crisis in the media, even though this was not always the case, spurs or reinforces misperceptions and raises voters' disappointment about mainstream parties. By losing trust in the latter, citizens may reduce political participation and increase protest or populist votes (Barone et al. 2016; Guiso et al. 2017 and 2018; Algan et al. 2018). Hence, strong anti-immigration campaigns turn out to be successful for far-right, populist parties, which, by emphasizing the severity of the arrivals and proposing restrictive policies to solve the alleged refugee crisis, gather larger consensus in the cities where refugees are more expected to arrive.

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TABLES

Table 1 – Boat landings and immigrants' arrival. Breakdown by year and region of landing

Years and regions	Boat-landing	Nr of immigrants	Average nr of immigrants
		By year	
2010	159	4406	28
2011	760	62692	82
2012	298	13267	45
2013	483	42925	89
2014	1111	170100	153
2015	742	110696	149
2016	1580	181436	115
2017	1451	119369	82
2018	489	21024	43
		By region	
Calabria	911	108792	119
Campania	158	23731	150
Friuli V. Giulia	1	35	35
Lazio	1	31	31
Liguria	3	605	202
Puglia	603	53714	89
Sardegna	487	19582	40
Sicilia	4909	519425	106

Table 2 – Immigrants' arrival. Breakdown by macro-region of origin

Macro Region	Nr of immigrants
Northern Africa	88609
Central Africa	14708
Eastern Africa	180949
Western Africa	275309
Southern Africa	20
Central Asia	8
Eastern Asia	7
Western Asia	109571
South-Eastern Asia	65
Southern Asia	55012
Europe	338
Caribbean	4
Central America	2
Not declared	1313

Table 3 – Descriptive statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
Turnout	5606	.650	.113	.003	.961
Share of anti-immigrants votes	5606	.043	.118	0	1
Share of populist votes	5606	.063	.139	0	1
Share of populist votes (including minor parties)	5606	.058	.130	0	1
Share of Lega coalition votes	5606	.041	.117	0	1
Share of protest votes	5605	.038	.032	0	.800
Exposure index	5606	1.403	2.724	0	32.152
Exposure index 0-30 days before elections	5606	4.671	8.645	0	97.367
Exposure index 0-60 days before elections	5606	3.510	6.738	0	76.323
Exposure index 0-90 days before elections	5606	3.321	6.433	0	73.411
Exposure index 30-60 days before elections	5606	2.482	6.324	0	82.605
Exposure index 60-90 days before elections	5606	2.54	5.808	0	66.279
Exposure index (2004)	5606	1.106	2.183	0	28
Exposure index (2004) 0 - 30 days before elections	5606	3.768	7.63	0	59.335
Exposure index (2004) 0 - 60 days before elections	5606	2.747	5.474	0	59.029
Exposure index (2004) 0 - 90 days before elections	5606	2.611	5.192	0	61.621
Exposure index (2004) 30 - 60 days before elections	5606	1.854	4.925	0	85.834
Exposure index (2004) 60 - 90 days before elections	5606	2.029	4.752	0	70.434
Exposure index (1st round)	5606	1.094	2.069	0	21.496
Exposure index (1st round) 0 - 30 days before elections	5606	3.857	7.578	0	66.765
Exposure index (1st round) 0 - 60 days before elections	5606	2.759	5.253	0	51.115
Exposure index (1st round) 0 - 90 days before elections	5606	2.601	4.946	0	47.516
Exposure index (1st round) 30 - 60 days before elections	5606	1.807	4.527	0	64.527
Exposure index (1st round) 60 - 90 days before elections	5606	1.936	4.398	0	52.827
Total SPRAR beds	5606	338.813	684.754	0	5165
Total SPRAR beds, per capita (per 1000 individuals)	5606	0.397	0.463	0	2.761
Share of migrants	5420	0.060	0.043	0.0007	0.317
Electorate	5606	7941.768	32380.95	79	1006701
Number of mayors	5592	4.274	4.855	1	41
Share of household with annual income > 120k	5427	.03	.044	0	.464
Taxable income per capita – Year 2010	5426	21510.26	3577.97	13539.89	58726.29
Ageing index	5426	2.833	3.086	.235	56
Share of household without ADSL ≥ 2Mbps (Infratel)	5426	0.123	0.213	0	0.903
Share of household without ADSL ≥ 2Mbps (AGICOM)	5426	0.157	0.234	0	1
No. of reported crimes (per capita) – Year 2010	5520	0.008	0.005	0.001	0.035
No. of reported crimes weighted (per capita) – Year 2010	5520	1.80-e06	.00009	1.51e-06	9.69e-06
Population – Year 2010	5424	9694.15	41578.14	71	1307495
Unemployment rate (aged 15 and over) – Year 2010	5521	9.138	3.781	2.839	18.376
Share of children aged 0-4 – Year 2010	5424	0.042	0.011	0	.099
Average yearly distance from landings (Km)	5598	628.635	238.781	222.646	1038.582
Refugees landed, *log(1+#)*	9048	3.265	1.157	2.132	9.676
Immigration-related tweets, *log(1+#)*	9396	1.703	1.733	0.000	9.355
Total tweets, *log(1+#)*	9396	7.995	2.131	0.000	13.777
Year 2010	5606	.093	.29	0	1
Year 2011	5606	.195	.396	0	1
Year 2012	5606	.127	.333	0	1
Year 2013	5606	.085	.28	0	1
Year 2015	5606	.093	.29	0	1
Year 2016	5606	.195	.396	0	1
Year 2017	5606	.127	.333	0	1
Year 2018	5606	.085	.28	0	1
North Italy	5592	.406	.491	0	1
Center Italy	5592	.124	.33	0	1
Southern Italy and Islands	5592	.469	.499	0	1

Table 4 – Exposure to arrivals and turnout

	(1)	(2)	(3)	(4)
	Dependent Variable: *Turnout*			
Exposure index	-0.0023***			
	(0.0006)			
Exposure index (0-30 days before elections)		-0.0009***		
		(0.0002)		
Exposure index (0-60 days before elections)			-0.0010***	
			(0.0002)	
Exposure index (0-90 days before elections)				-0.0010***
				(0.0002)
Total SPRAR beds	0.0186***	0.0196***	0.0188***	0.0186***
	(0.0030)	(0.0030)	(0.0030)	(0.0030)
Share of migrants	0.2299**	0.2466**	0.2411**	0.2352**
	(0.1049)	(0.1058)	(0.1054)	(0.1048)
Electorate	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Number of mayors	0.0061***	0.0062***	0.0061***	0.0061***
	(0.0012)	(0.0012)	(0.0012)	(0.0012)
Taxable income share > 120,000	-0.0553	-0.0578	-0.0549	-0.0551
	(0.0694)	(0.0698)	(0.0695)	(0.0694)
Ageing index	-0.0003	-0.0001	-0.0003	-0.0003
	(0.0024)	(0.0024)	(0.0024)	(0.0024)
Constant	0.5690***	0.5667***	0.5687***	0.5691***
	(0.0168)	(0.0173)	(0.0167)	(0.0167)
Observations	5,397	5,397	5,397	5,397
R-squared	0.481	0.482	0.482	0.481
Number of municipalities	2,706	2,706	2,706	2,706

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table 5 – Exposure to arrivals and protest votes

	(1)	(2)	(3)	(4)
	Dependent Variable: *Share of protest votes*			
Exposure index	0.0013***			
	(0.0004)			
Exposure index (0-30 days before elections)		0.0004***		
		(0.0001)		
Exposure index (0-60 days before elections)			0.0006***	
			(0.0002)	
Exposure index (0-90 days before elections)				0.0006***
				(0.0002)
Total SPRAR beds	-0.0036***	-0.0040***	-0.0037***	-0.0036***
	(0.0013)	(0.0012)	(0.0013)	(0.0013)
Share of migrants	0.0318	0.0383	0.0268	0.0290
	(0.0532)	(0.0531)	(0.0530)	(0.0531)
Electorate	-0.0000**	-0.0000**	-0.0000**	-0.0000**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Number of mayors	-0.0021***	-0.0021***	-0.0021***	-0.0021***
	(0.0007)	(0.0007)	(0.0007)	(0.0007)
Taxable income share > 120,000	0.0017	0.0034	0.0016	0.0016
	(0.0245)	(0.0252)	(0.0246)	(0.0245)
Ageing index	0.0017	0.0015	0.0016	0.0017
	(0.0028)	(0.0028)	(0.0028)	(0.0028)
Constant	0.0596***	0.0607***	0.0598***	0.0596***
	(0.0110)	(0.0112)	(0.0110)	(0.0110)
Observations	5,397	5,397	5,397	5,397
R-squared	0.050	0.048	0.050	0.050
Number of municipalities	2,706	2,706	2,706	2,706

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table 6– Exposure to arrivals and share of anti-immigration votes

	(1)	(2)	(3)	(4)
	Dependent Variable: *Share of votes for anti-immigration parties*			
Exposure index	0.0023***			
	(0.0007)			
Exposure index (0-30 days before elections)		0.0012***		
		(0.0004)		
Exposure index (0-60 days before elections)			0.0012***	
			(0.0003)	
Exposure index (0-90 days before elections)				0.0011***
				(0.0003)
Total SPRAR beds	0.0040	0.0028	0.0038	0.0040
	(0.0035)	(0.0033)	(0.0035)	(0.0035)
Share of migrants	-0.0762	-0.1349	-0.1053	-0.0853
	(0.1220)	(0.1368)	(0.1237)	(0.1224)
Electorate	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Number of mayors	-0.0022**	-0.0023**	-0.0022**	-0.0022**
	(0.0010)	(0.0010)	(0.0010)	(0.0010)
Taxable income share > 120,000	-0.0662	-0.0644	-0.0673	-0.0666
	(0.1218)	(0.1213)	(0.1218)	(0.1219)
Ageing index	-0.0063	-0.0067*	-0.0064	-0.0063
	(0.0040)	(0.0040)	(0.0040)	(0.0040)
Constant	0.0458*	0.0488*	0.0462*	0.0457*
	(0.0246)	(0.0246)	(0.0243)	(0.0244)
Observations	5,397	5,397	5,397	5,397
R-squared	0.040	0.043	0.041	0.040
Number of municipalities	2,706	2,706	2,706	2,706

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table 7 – Exposure to arrivals and share of populist votes

	(1)	(2)	(3)	(4)
	Dependent Variable: *Share of votes for populist parties*			
Exposure index	0.0050***			
	(0.0011)			
Exposure index (0-30 days before elections)		0.0020***		
		(0.0005)		
Exposure index (0-60 days before elections)			0.0023***	
			(0.0005)	
Exposure index (0-90 days before elections)				0.0022***
				(0.0005)
Total SPRAR beds	-0.0043	-0.0064	-0.0046	-0.0043
	(0.0054)	(0.0053)	(0.0053)	(0.0054)
Share of migrants	0.0184	-0.0340	-0.0225	0.0035
	(0.1616)	(0.1737)	(0.1617)	(0.1617)
Electorate	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Number of mayors	-0.0017	-0.0019	-0.0017	-0.0017
	(0.0016)	(0.0016)	(0.0016)	(0.0016)
Taxable income share > 120,000	-0.1324	-0.1273	-0.1339	-0.1330
	(0.1362)	(0.1355)	(0.1362)	(0.1362)
Ageing index	-0.0068	-0.0075*	-0.0070	-0.0069
	(0.0043)	(0.0044)	(0.0044)	(0.0043)
Constant	0.0762	0.0815	0.0769	0.0759
	(0.0511)	(0.0519)	(0.0507)	(0.0508)
Observations	5,397	5,397	5,397	5,397
R-squared	0.048	0.052	0.051	0.049
Number of municipalities	2,706	2,706	2,706	2,706

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table 8 – Exposure to arrivals and share of votes for Northern League party

	(1)	(2)	(3)	(4)
	Dependent Variable: *Share of votes for Northern League*			
Exposure index	0.0036**			
	(0.0017)			
Exposure index (0-30 days before elections)		0.0017**		
		(0.0007)		
Exposure index (0-60 days before elections)			0.0018**	
			(0.0007)	
Exposure index (0-90 days before elections)				0.0016**
				(0.0007)
Total SPRAR beds	0.0218*	0.0204	0.0219*	0.0219*
	(0.0124)	(0.0124)	(0.0123)	(0.0123)
Share of migrants	-0.1682	-0.2246	-0.2051	-0.1792
	(0.2061)	(0.2446)	(0.2131)	(0.2084)
Electorate	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Number of mayors	-0.0069***	-0.0071***	-0.0068***	-0.0068***
	(0.0019)	(0.0019)	(0.0019)	(0.0019)
Taxable income share > 120,000	-0.1473	-0.1467	-0.1479	-0.1475
	(0.1789)	(0.1771)	(0.1783)	(0.1787)
Ageing index	-0.0036	-0.0046	-0.0038	-0.0036
	(0.0027)	(0.0029)	(0.0027)	(0.0027)
Constant	0.1088***	0.1132***	0.1108***	0.1092***
	(0.0293)	(0.0313)	(0.0294)	(0.0293)
Observations	2,264	2,264	2,264	2,264
R-squared	0.080	0.083	0.081	0.081
Number of municipalities	1,137	1,137	1,137	1,137

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

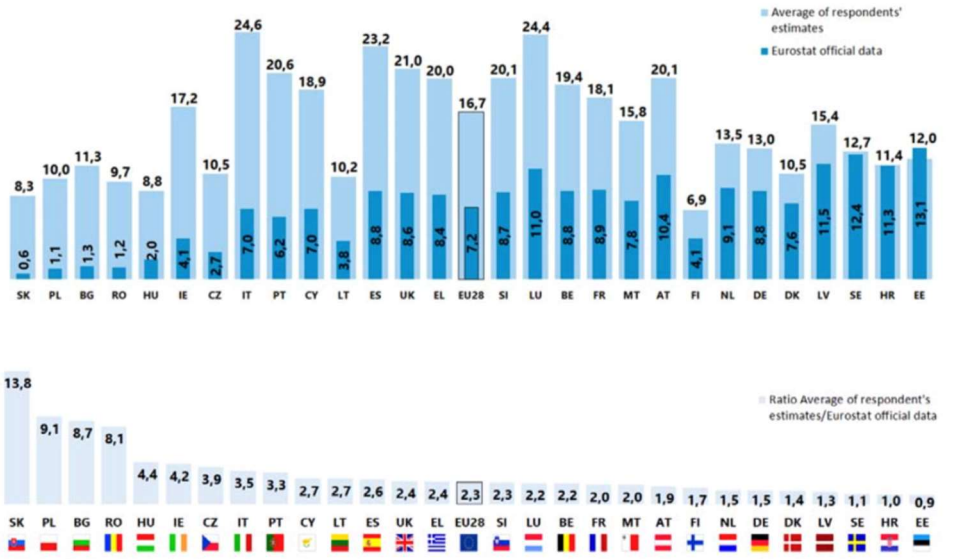
Table 9 – Exposure to arrivals and electoral outcomes: the role of internet diffusion

	(1)	(2)		(3)	(4)		(5)	(6)		(7)	(8)		(9)	(10)	
Dependent Variables:	*Turnout*			*Protest votes*			*Share of vote for anti-immigration parties*			*Share of vote for populist parties*			*Share of vote for Northern League*		
	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile
Exposure index	-0.0020***	-0.0015	-0.0021	0.0006*	0.0019***	0.0008	0.0025**	0.0021**	0.0006	0.0046***	0.0047***	0.0015	0.0040*	0.0030	-0.0010
	(0.0006)	(0.0009)	(0.0015)	(0.0003)	(0.0006)	(0.0012)	(0.0010)	(0.0009)	(0.0013)	(0.0017)	(0.0016)	(0.0016)	(0.0023)	(0.0026)	(0.0024)
Exposure index	-0.0008***	-0.0005*	-0.0008	0.0002*	0.0005***	0.0003	0.0011**	0.0012**	0.0005	0.0019***	0.0022***	0.0006	0.0014	0.0019	0.0004
(0-30 days before elections)	(0.0002)	(0.0002)	(0.0005)	(0.0001)	(0.0001)	(0.0004)	(0.0005)	(0.0004)	(0.0007)	(0.0006)	(0.0006)	(0.0007)	(0.0009)	(0.0011)	(0.0015)
Exposure index	-0.0009***	-0.0006	-0.0009	0.0002*	0.0008***	0.0003	0.0012***	0.0010**	0.0003	0.0022***	0.0022***	0.0006	0.0018**	0.0016	-0.0002
(0-60 days before elections)	(0.0002)	(0.0004)	(0.0006)	(0.0001)	(0.0002)	(0.0005)	(0.0004)	(0.0004)	(0.0005)	(0.0007)	(0.0007)	(0.0007)	(0.0009)	(0.0011)	(0.0012)
Exposure index	-0.0009***	-0.0006	-0.0009	0.0002*	0.0008***	0.0003	0.0011**	0.0009**	0.0002	0.0021***	0.0021***	0.0006	0.0017*	0.0013	-0.0004
(0-90 days before elections)	(0.0002)	(0.0004)	(0.0006)	(0.0001)	(0.0002)	(0.0005)	(0.0004)	(0.0004)	(0.0005)	(0.0007)	(0.0007)	(0.0007)	(0.0009)	(0.0011)	(0.0011)
Observations	2,298	1,320	1,779	2,298	1,320	1,779	2,298	1,320	1,779	2,298	1,320	1,779	1,014	503	747
Number of municipalities	1,150	661	895	1,150	661	895	1,150	661	895	1,150	661	895	508	252	377

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1
Note: % households without access at least at 2mb - averaged over 2010-2018 using data for 2012-2014 provided by INFRATEL (tertiles by macroarea)

FIGURES

Figure 1 – Actual versus perceived: the proportion of immigrants in each EU country

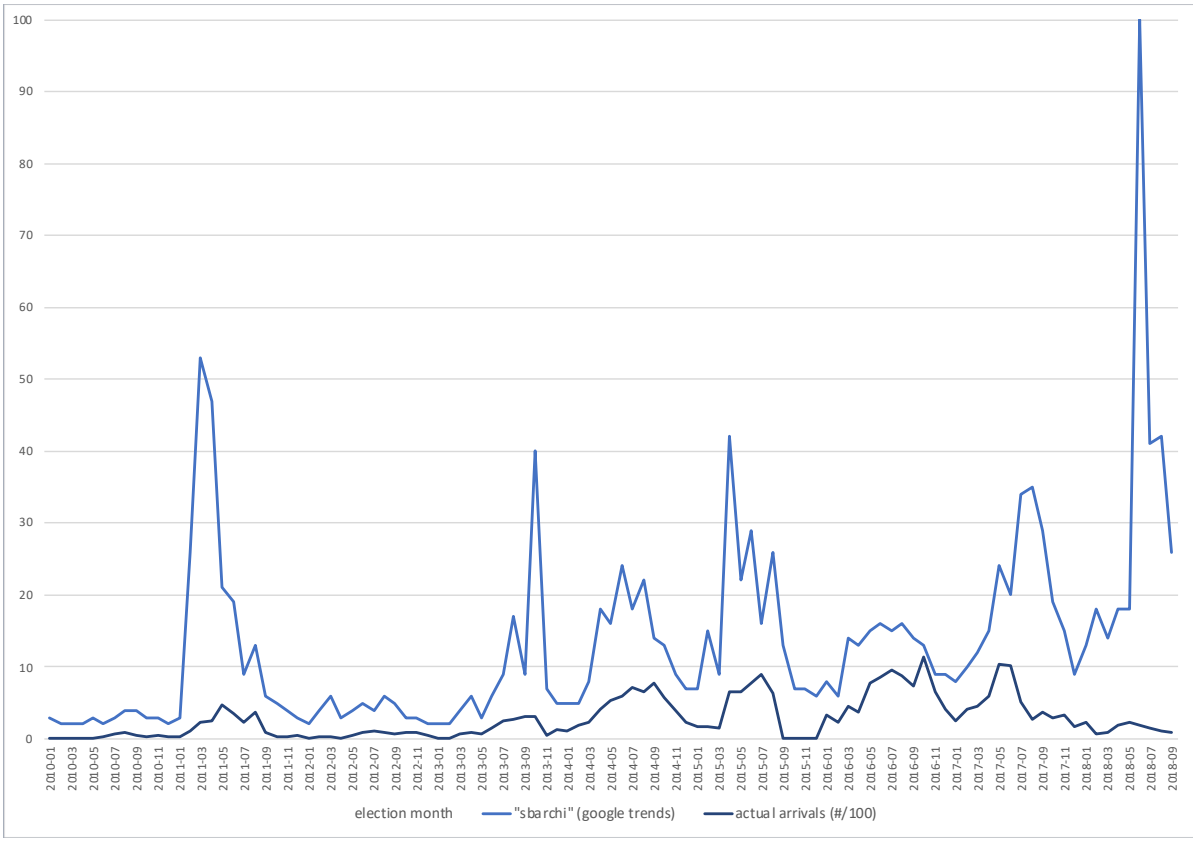


Base size: 19,957 (respondents who gave an estimate of the proportion of immigrants in the total population in their country)

Source: Integration of immigrants in the European Union – Eurobarometer (2018)

Figure 2 - Google Search of the words “Sbarchi” (boat landings), Panel A, and “Immigrati” (immigrants), Panel B, compared with actual arrivals.

Panel A



Panel B

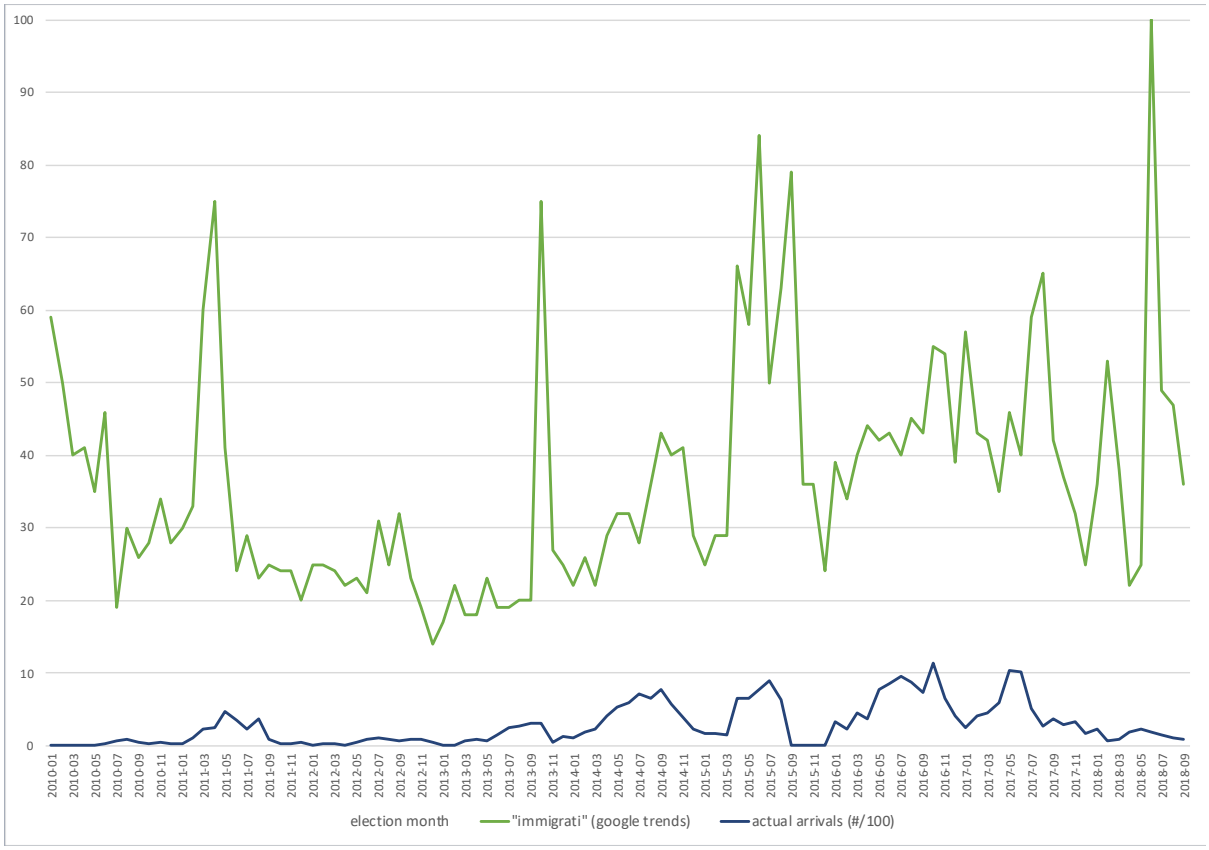


Figure 3 – Province-level tweets containing the words “Immigrato/a/i/e” (immigrant/s) or “Rifugiato/a/i/e” (refugee/s), compared with actual arrivals.

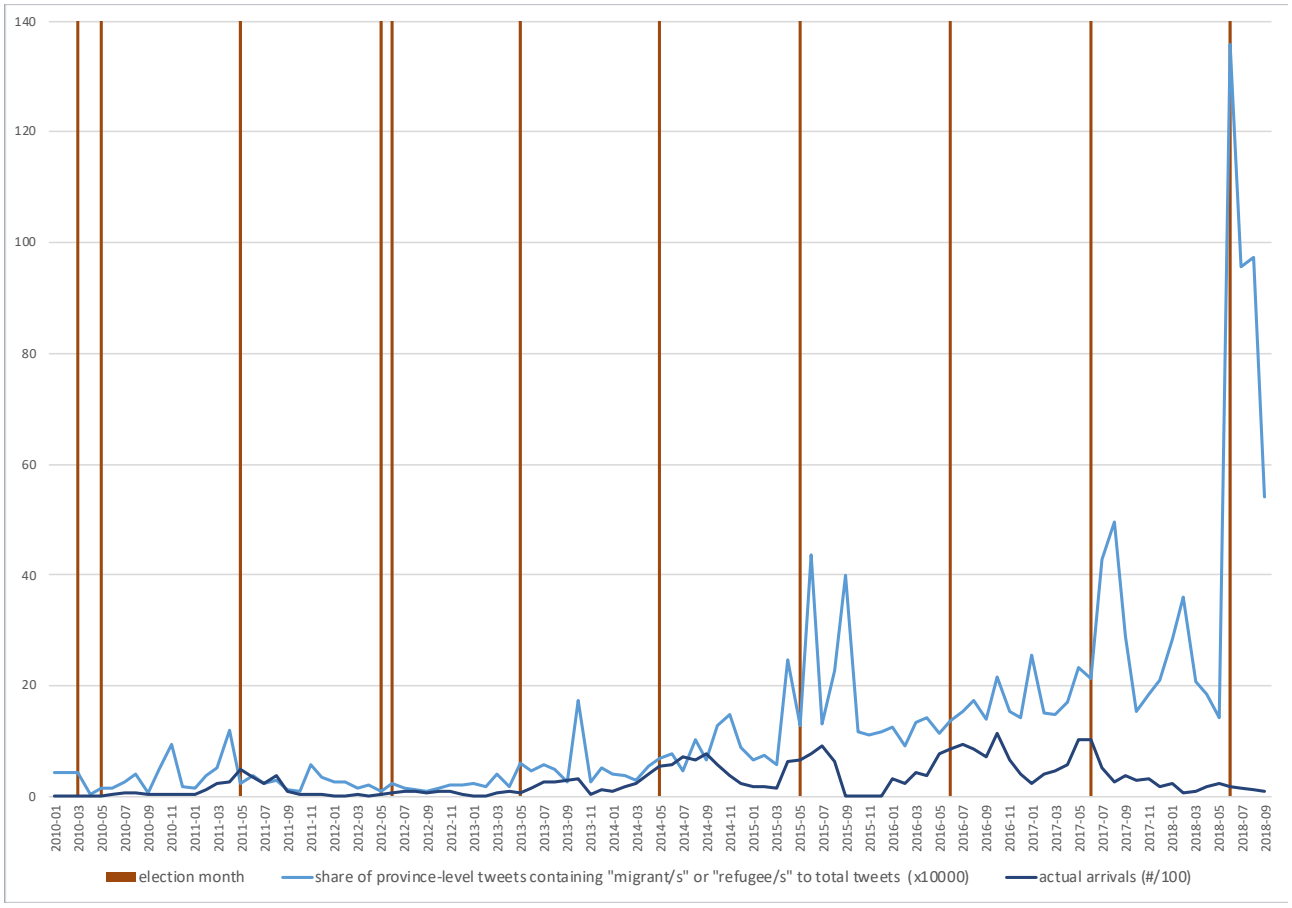
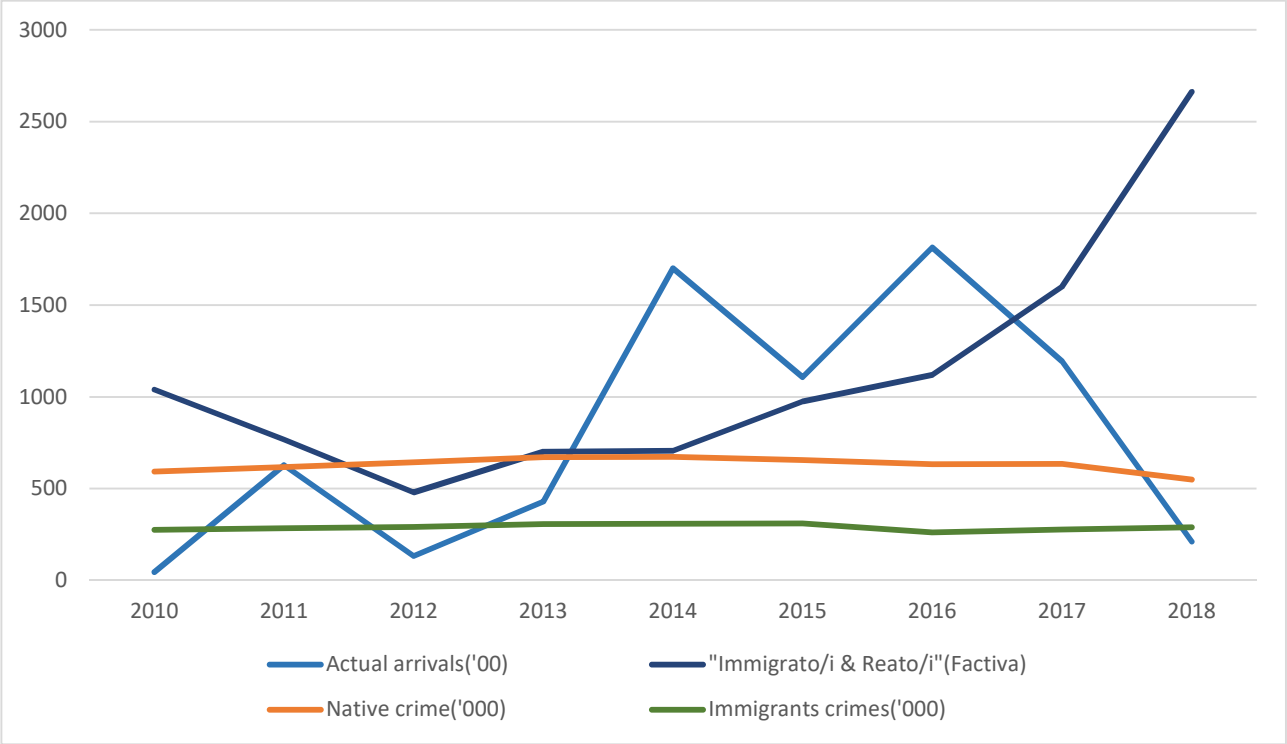
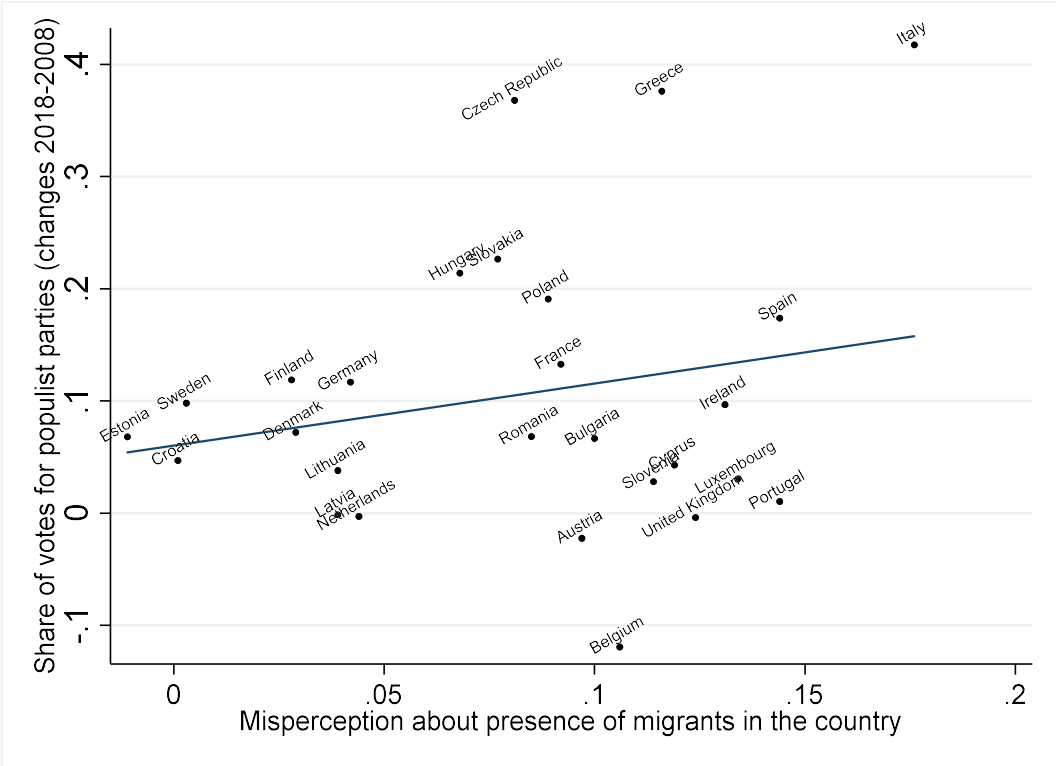


Figure 4 – Occurrences of the words “Immigrato/i” (immigrant/s) and “Reato/i” (crime/s) in newspaper articles, compared with refugee arrivals and crimes committed by natives or immigrants



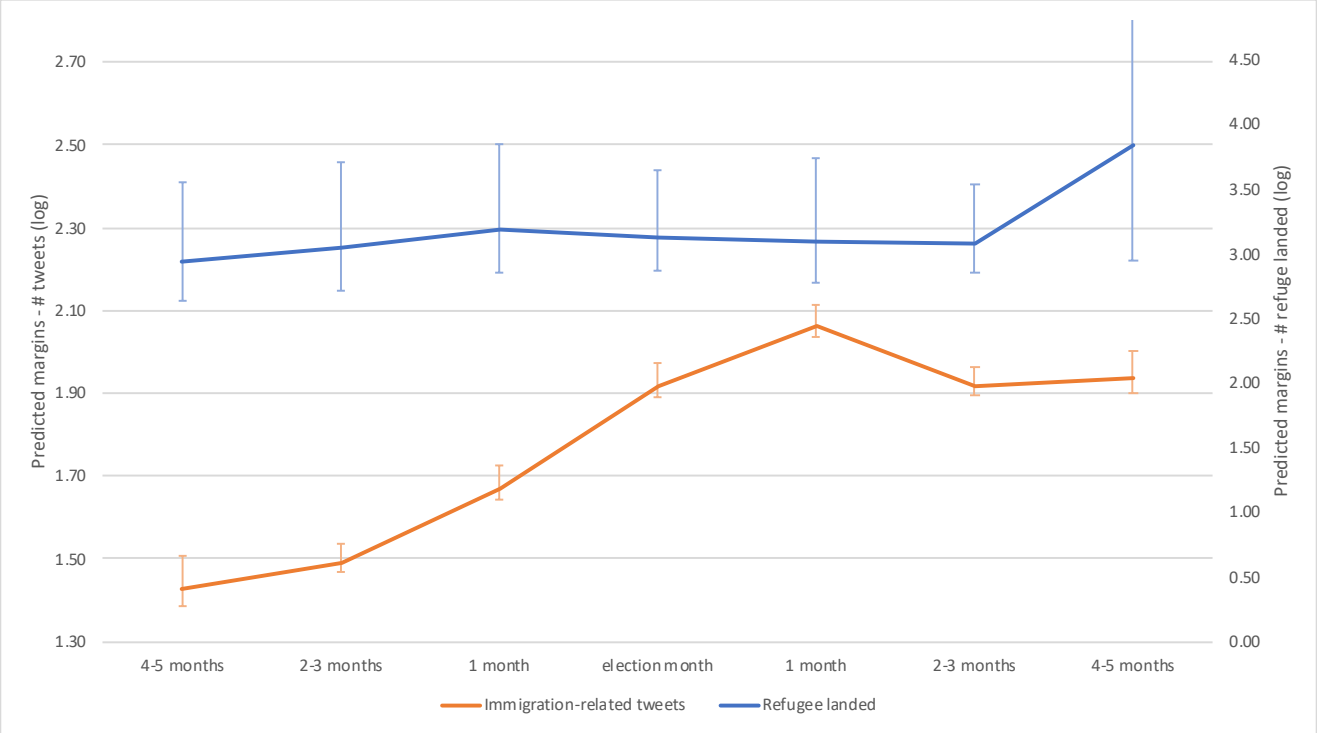
Notes: The variable “Immigrato/i &/or Reato/i” counts the number of times the words “immigrato” (immigrants) and “reato” (crime), or their respective plurals jointly appear within a phrase written in the main Italian newspaper and news websites, across the years 2010 – 2018. They are constructed by means of a FACTIVA search. “Actual arrival” and “Native crimes” report the number of immigrants arrived on Italian shores and the number of crimes reported by the police, respectively, across the years 2010 – 2018, in thousands.

Figure 5 – Growth of populist parties share and misperception of immigration, 2008-2018



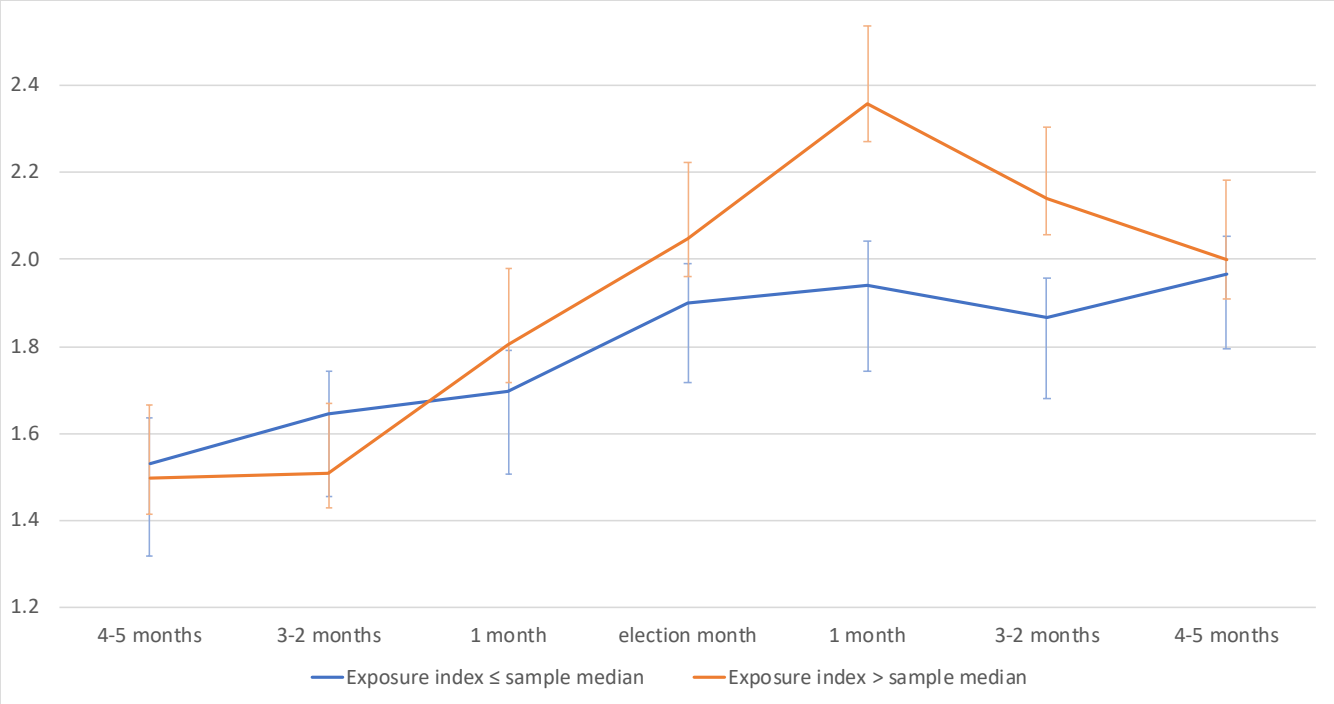
Sources: https://www.euronews.com/2018/03/15/explained-the-rise-and-rise-of-populism-in-europe; Integration of immigrants in the European Union – Eurobarometer (2018)

Figure 6 – Immigration salience and real immigration – estimated margins



Notes: estimated margins from regressions of province-level immigration-related tweets and number of refugees landed on dummies for periods preceding the election month. The model for immigration-related tweets has been estimated through fixed effect OLS exploiting variation between and within provinces, with standard errors clustered by province. The model for number of refugees landed has been estimated through simple OLS exploiting only time variation, with robust standard errors.

Figure 7 – Immigration salience by perceived exposure – estimated margins



Notes: estimated margins from regressions of immigration-related tweets on dummies for periods preceding the election month, which have been interacted with a dummy variable equal to one for provinces that are above the sample median value of the exposure index; the model has been estimated through fixed effect OLS exploiting variation between and within provinces, with standard errors clustered by province.

APPENDIX

Table A1 – Variable legend

Variable	Description
Turnout	Reports the share of individuals entitled to vote at municipality level who went voting at the election, net of the null and void ballot papers
Share of anti-immigrants votes	Share of votes expressed in favor of Casa Pound, Forza Nuova, Movimento Sociale Italiano and Alleanza Nazionale
Share of populist votes	Share of votes expressed in favor of Forza Italia, Il Popolo delle libertà, Lega and Movimento 5 Stelle
Share of populist votes (including minor parties)	Share of votes expressed in favor of Forza Italia, Il Popolo delle libertà, Lega, Movimento 5Stelle, Casa Pound, Il Popolo della Famiglia and Potere al Popolo.
Share of Lega coalition votes	Share of votes expressed in favor of Lega, Lega Nord and Lega Padana
Share of protest votes	Share of white, null and void ballot papers
Exposure index	Index of exposure to immigrants' arrivals. Captures the perception of new entrant immigrants at municipality level
Exposure index 30 days before elections	Index of exposure to immigrants' arrivals calculated in the 30 days preceding the election
Exposure index 30-60 days before elections	Index of exposure to immigrants' arrivals calculated between 30 and 60 days preceding the elections
Exposure index 60-90 days before elections	Index of exposure to immigrants' arrivals calculated between 60 and 90 days preceding the elections
Exposure index 0-60 days before elections	Index of exposure to immigrants' arrivals calculated between the election day and 60 days preceding the elections
Exposure index 0-90 days before elections	Index of exposure to immigrants' arrivals calculated between the election day and 90 days preceding the election
Total SPRAR beds	Total number of available beds in SPRAR centers at province level
Share of migrants	Share of non-native population with respect to the total resident population, at municipality level
Electorate	Number of individuals entitled to vote at municipality level
Number of mayors	Number of mayor candidates at the elections
Share of household with annual income > 120k	Share of citizens with annual personal income greater than 120 thousand at municipal level
Taxable income per capita 1st tertile - Year 2010	Dummy variable taking value 1 if the municipality annual taxable income per capita is in the first tertile of the macro-area annual distribution, 0 otherwise
Taxable income per capita 2st tertile - Year 2010	Dummy variable taking value 1 if the municipality annual taxable income per capita is in the second tertile of the macro-area annual distribution, 0 otherwise
Taxable income per capita 3st tertile - Year 2010	Dummy variable taking value 1 if the municipality annual taxable income per capita is in the third tertile of the macro-area annual distribution, 0 otherwise
Ageing index	Index of age structure at municipal level, calculated as the ratio between the share of elder individuals (i.e. over 65 years) and the share of pupils and children (i.e. from 0 to 14 years)
Share of household without ADSL ≥ 2Mbps (Infratel)	Share of households in each municipality that have no broadband access at a speed equal to 2 Mbits/second or above. The information has been obtained from Infratel only for the period 2012-2015; we average the available data points across all periods, including also the years for which the information was originally missing.
Share of household without ADSL ≥ 2Mbps (AGICOM)	Share of households in each municipality that have no broadband access at a speed equal to 2 Mbits/second or above. The information is available at AGICOM only for 2018, and has been assigned also to all other periods considered in our analysis.
Average yearly distance from landings (Km)	Distance (in Km) of municipality from the main immigration ports. For each boat landing to which a municipality is exposed, we calculate the distance in km of that municipality from the ports of arrival. Then, we average it across all the landings to which the municipality is exposed (according to the exposure index).
Immigration-related tweets	Number of tweets containing the word "migrant/s", "immigrant/s", or "refugee/s". The variable is expressed in logarithms through the following transformation: *log(1+# tweets)*.
Total tweets	Number of all the tweets collected; see Section 4.2 for further details. The variable is expressed in logarithms through the following transformation: *log(1+# tweets)*.
No. of reported crimes per electorate	Number of crimes committed by natives reported to the police at province level (NUTS3), per capita (at municipal level).
No. of reported crimes weighted - Year 2010	Number of crimes committed by natives, weighted by crimes committed by immigrants at national level, reported to the police at province level (NUTS3), per capita (at municipal level).
No. of reported crimes per electorate 1st tertile - Year 2010	Dummy variable taking value 1 if the province number of crimes per capita is in the first tertile of the macro-area annual distribution, 0 otherwise.
No. of reported crimes per electorate 2nd tertile - Year 2010	Dummy variable taking value 1 if the province number of crimes per capita is in the second tertile of the macro-area annual distribution, 0 otherwise.
No. of reported crimes per electorate 3rd tertile - Year 2010	Dummy variable taking value 1 if province number of crimes per capita is in the third tertile of the macro-area annual distribution, 0 otherwise.
No. of reported crimes weighted per electorate 1st tertile - Year 2010	Dummy variable taking value 1 if the province number of crimes per capita, weighted by crimes committed by immigrants at national level, is in the first tertile of the macro-area annual distribution, 0 otherwise.
No. of reported crimes weighted per	Dummy variable taking value 1 if the province number of crimes per capita, weighted by crimes committed

electorate 2nd tertile - Year 2010	by immigrants at national level, is in the second tertile of the macro-area annual distribution, 0 otherwise.
No. of reported crimes weighted per electorate 3rd tertile - Year 2010	Dummy variable taking value 1 if province number of crimes per capita, weighted by crimes committed by immigrants at national level, is in the third tertile of the macro-area annual distribution, 0 otherwise.
Population - Year 2010	Total resident population
Population 1st tertile - Year 2010	Dummy variable taking value 1 if the total resident population is in the first tertile of the macro-area annual distribution, 0 otherwise
Population 2nd tertile - Year 2010	Dummy variable taking value 1 if the total resident population is in the second tertile of the macro-area annual distribution, 0 otherwise
Population 3rd tertile - Year 2010	Dummy variable taking value 1 if the total resident population is in the third tertile of the macro-area annual distribution, 0 otherwise
Unemployment rate - Year 2010	Annual unemployment rate of the working age population (i.e. individuals aged 15 and over) computed at province level (NUTS3)
Unemployment 1st tertile - Year 2010	Dummy variable taking value 1 if the province unemployment rate is in the first tertile of the macro-area annual distribution, 0 otherwise
Unemployment 2nd tertile - Year 2010	Dummy variable taking value 1 if the province unemployment rate is in the second tertile of the macro-area annual distribution, 0 otherwise
Unemployment 3rd tertile - Year 2010	Dummy variable taking value 1 if the province unemployment rate is in the third tertile of the macro-area annual distribution, 0 otherwise
Share of children 0-4 - Year 2010	Number of individuals 0-4 years old over the total number of the resident population
Share of children 0-4 1st tertile - Year 2010	Dummy variable taking value 1 if the share of children 0-4 is in the first tertile of the macro-area annual distribution, 0 otherwise
Share of children 0-4 2nd tertile - Year 2010	Dummy variable taking value 1 if the share of children 0-4 is in the second tertile of the macro-area annual distribution, 0 otherwise
Share of children 0-4 3rd tertile - Year 2010	Dummy variable taking value 1 if the share of children 0-4 is in the third tertile of the macro-area annual distribution, 0 otherwise

Table A2 –Exposure index constructed by fixing at the first election year the local share of immigrants

	(1)	(2)	(3)	(4)	(5)
Dependent Variables:	Turnout	Protest votes	Share of vote for anti-immigration parties	Share of vote for populist parties	Share of vote for Northern League
Exposure index	-0.0033***	0.0011**	0.0028**	0.0063***	0.0022
	(0.0009)	(0.0005)	(0.0014)	(0.0017)	(0.0021)
Exposure index (0-30 days before elections)	-0.0010***	0.0002	0.0015***	0.0023***	0.0014*
	(0.0003)	(0.0002)	(0.0005)	(0.0007)	(0.0008)
Exposure index (0-60 days before elections)	-0.0014***	0.0005**	0.0016***	0.0031***	0.0012
	(0.0004)	(0.0002)	(0.0005)	(0.0007)	(0.0008)
Exposure index (0-90 days before elections)	-0.0014***	0.0005**	0.0013**	0.0029***	0.0010
	(0.0004)	(0.0002)	(0.0005)	(0.0007)	(0.0008)
Observations	5,397	5,397	5,397	5,397	2,264
Number of municipalities	2,706	2,706	2,706	2,706	1,137

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table A3 – Instrumental variable strategy using the historical settlement patterns of immigrants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variables:	Exposure index	Turnout	Protest votes	Share of vote for anti-immigration parties	Share of vote for populist parties	Exposure index	Share of vote for Northern League
	First-stage	Second-stage	Second-stage	Second-stage	Second-stage	First-stage	Second -stage
Exposure index$_{2004}$	0.7202***					0.6687***	
	(0.0219)					(0.0236)	
Exposure index		-0.00397***	0.00181***	0.00472**	0.0108***		0.00490*
		(0.00103)	(0.000613)	(0.00187)	(0.00287)		(0.00293)
Exposure index$_{2004}$ (0-30 days before elections)	0.7563***					0.7459***	
	(0.0187)					(0.0213)	
Exposure index (0-30 days before elections)		-0.00115***	0.000348**	0.00221***	0.00384***		0.00242***
		(0.000295)	(0.000172)	(0.000577)	(0.000918)		(0.000844)
Exposure index$_{2004}$ (0-60 days before elections)	0.7174***					0.6622***	
	(0.0218)					(0.0238)	
Exposure index (0-60 days before elections)		-0.00172***	0.000790***	0.00248***	0.00504***		0.00260**
		(0.000426)	(0.000262)	(0.000628)	(0.00115)		(0.00102)
Exposure index$_{2004}$ (0-90 days before elections)	0.7154***					0.6592***	
	(0.0217)					(0.0235)	
Exposure index (0-90 days before elections)		-0.00172***	0.000796***	0.00218***	0.00483***		0.00225*
		(0.000442)	(0.000267)	(0.000738)	(0.00121)		(0.00118)
Observations	5,397	5,397	5,397	5,397	5,397	2,264	2,264
Number of municipalities	2,706	2,706	2,706	2,706	2,706	1,137	1,137

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1

Columns (1) through (7) are based on 2SLS estimations. In Columns (2), (3), (4, (5) and (7), the dependent variable is the difference in turnout, protest votes or vote shares for anti-immigrant, populist parties and Northern League between two elections at municipal level and the key explanatory variable is the change in the exposure to migration at municipality level taking into account all the arrivals occurring from the beginning of the year to the election day, and subsequently shorter time spans such as 0-30, 0-60 or 0-90 days before elections, alternatively, instrumented by the equivalent variables in 2004. Column (1) reports the first-stage coefficient for the exposure index in the case of 2SLS estimations reported in Columns (2), (3), (4), and (5). Column (6) reports the first-stage coefficient for the exposure index in the case of 2SLS estimation reported in Columns (7).

Table A4 – Placebo tests using electoral outcomes obtained ten years earlier (period 2000-2008)

	(1)	(2)	(3)	(4)	(5)
Dependent Variables:	Turnout	Protest votes	Share of vote for anti-immigration parties	Share of vote for populist parties	Share of vote for Northern League
Exposure index	-0.0007	0.0002	0.0004	0.0000	0.0003
	(0.0007)	(0.0003)	(0.0009)	(0.0010)	(0.0015)
Exposure index (30 days before elections)	0.0008***	0.0002	-0.0000	0.0000	-0.0002
	(0.0002)	(0.0001)	(0.0003)	(0.0003)	(0.0005)
Exposure index (0-60 days before elections)	0.0000	0.0001	0.0001	0.0001	0.0001
	(0.0003)	(0.0001)	(0.0004)	(0.0004)	(0.0006)
Exposure index (0-90 days before elections)	-0.0002	0.0001	0.0002	0.0000	0.0001
	(0.0003)	(0.0001)	(0.0004)	(0.0004)	(0.0006)
Observations	4,140	4,140	4,140	4,140	1,767
Number of municipalities	2,270	2,270	2,270	2,270	963

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table A5 – Event Study: pre- and post-electoral migration by country of origin

Nationalities	2 years before elections	1 year before elections	1 year after elections	2 years after elections
Afghanistan	-0.0001638	-0.0000951	-0.00009	-0.0000148
Albania	0.0004243	0.0007111	-0.0005533	-0.000049
Algeria	-0.0000849	-4.43E-06	-0.0000653	-0.0000705
Angola	0.000015	0.0000549	0.0000239	-7.54E-06
Saudi Arabia	1.20E-06	1.06E-06	6.76E-07	1.08E-06
Azerbaijan	-6.90E-06	-2.18E-06	3.67E-07	-5.13E-06
Bangladesh	0.0000904	0.0003185	0.0001325	0.0002887
Belize	1.02E-06	1.06E-06	1.85E-07	6.17E-07
Benin	-.000034 *	-0.000026	0.0000265	-0.000012
Belarus	-0.0000536	-0.0001265	-0.0000613	-0.0002139
Bulgaria	0.000338	.0005981 *	-0.0000967	0.0000602
Burkina Faso	0.0000416	0.0000308	.0001256 *	.0001477 *
Burundi	-1.80E-06	-7.90E-06	0.000038	-0.0000155
Cameroon	3.18E-06	0.0000885	-5.41E-06	0.0000441
Cape Verde Islands	0.000089	0.000044	-2.12E-06	0.0000232
Chad	-0.000013	0.0000418	0.0000158	8.80E-06
China	-.0005601 *	-0.0003257	-0.0001892	0.0000644
Comoros	6.18E-07	2.04E-07	-1.11E-07	2.83E-07
Congo	-0.0000343	-.0000446 *	-5.81E-07	-0.0000254
Ivory Coast	-0.0000298	-0.0000349	-5.47E-06	-0.0000128
Egypt	0.0001034	0.0000356	0.0001593	0.0000285
Eritrea	-0.0000561	-8.79E-06	0.0000369	-0.0000527
Ethiopia	-0.000013	0.0000185	-0.0000265	-0.0000549
Philippines	0.000075	0.000093	0.0000864	0.0000606
France	0.0004565	0.0002948	0.0000983	-0.0000303
Gabon	0.0000112	4.88E-06	6.29E-07	6.83E-06
Gambia	0.0000529	0.0000272	-0.0000509	0.000035
Georgia	0.0000583	0.0000883	-0.0000474	0.0000437
Ghana	-0.0000809	-0.0001119	0.0000639	-0.0000187
Jamaica	0.0000138	4.44E-06	-3.84E-06	3.17E-06
Djibouti	8.04E-06	8.12E-06	-8.05E-07	3.80E-06
Jordan	-0.0000214	-0.0000469	3.43E-06	-0.0000152
Greece	-0.0001525	-0.000081	-0.0000783	0.000017
Guinea	-0.0000193	0.0000296	2.55E-06	-2.15E-06
Guinea-Bissau	6.48E-06	-0.0000115	1.13E-06	1.83E-06
Equatorial Guinea	-0.0000129	-0.0000128	-0.0000108	-1.44E-06
Guyana	-1.01E-06	1.38E-07	-2.80E-07	-5.27E-06
Haiti	-1.52E-06	-0.0000119	-3.55E-07	-5.37E-06
India	-0.0007149	-0.0004595	0.0000164	-0.0004268
Iran	0.000023	-0.0000162	6.55E-06	-9.74E-06
Iraq	-0.0000615	-0.0000905	-0.0000833	-0.0000878
Israel	-0.0000113	-9.47E-06	0.0000422	0.0000212
Kazakhstan	-8.87E-06	-0.0000154	0.0000204	-0.000011
Kenya	6.46E-06	-0.0000265	7.22E-06	-0.0000388
Kyrgystan	-0.0000266	-0.0000333	-2.62E-07	0.000026
Kosovo	0.0000807	0.0002031	-0.0000801	-0.0003381

Kuwait	8.08E-06	7.05E-07	0.0000233	-2.57E-06
Lesotho	6.84E-07	-6.85E-07	2.03E-06	4.05E-06
Latvia	-0.0000105	-0.0000304	0.0000161	-0.0000831
Lebanon	0.0000146	0.0000461	-0.000021	-0.0000115
Liberia	3.10E-06	-5.22E-06	3.46E-06	2.47E-06
Libya	0.0000128	0.000012	-0.0000119	8.69E-06
Lithuania	.000118 *	-0.0000182	0.0000144	0.0000678
Madascar	-0.0000982	-0.0000718	-0.0000283	-0.0000629
Malawi	-3.27E-06	-2.44E-06	1.09E-06	-1.38E-06
Malaysia	2.87E-06	0.0000162	-2.69E-06	-7.15E-06
Mali	-0.0001903	-0.0002406	-0.0000237	0.0000511
Morocco	0.0000583	0.0002287	0.0008314	0.0005521
Mauritania	-1.67E-06	-5.64E-06	-4.79E-06	-3.13E-06
Mauritius	-0.0000569	-0.0000334	0.0000212	5.59E-06
Moldova	-0.0001164	-0.0003012	0.0001008	0.0000992
Myanmar	-6.60E-06	-7.64E-06	3.65E-06	0.0000249
Namibia	1.70E-07	5.10E-07	5.85E-07	-1.89E-07
Nepal	0.0000203	-4.25E-06	-0.0000213	-6.75E-06
Niger	0.0000144	5.46E-06	-0.0000157	-0.000018
Nigeria	0.0002789	0.0001388	0.0000859	0.0002451
Oman	2.71E-07	1.24E-07	-4.43E-08	2.02E-07
Pakistan	-0.0001047	-0.0001563	0.0000235	-0.0000238
The Central African Republic	2.54E-06	-9.68e-06 **	-3.93E-06	0.0000137
The Dominican Republic	0.000141	0.00012	-0.0000493	0.0001887
Romania	0.0000189	0.0000913	0.0004673	0.0004088
Rwanda	0.000067	0.0000314	7.19E-06	-0.000017
Russia	0.0003036	0.0003409	-0.000065	0.0002371
Senegal	-0.0003409	-0.0001616	-0.0001577	-0.0000848
Sierra Leone	0.0000241	0.0000267	.0000156 *	.0000505 **
Syria	-8.89E-06	4.22E-06	0.0000215	4.14E-06
Somalia	-0.0000777	-0.0000358	0.0000932	-0.0000971
Sri Lanka	-0.0000155	-0.0000601	0.0000393	-0.0000497
South Africa	-9.28E-06	-7.78E-06	-0.0000144	-5.66E-06
Sudan	7.91E-06	0.0000174	0.0000259	0.0000188
Tanzania	-0.0000107	-0.0000372	0.0000203	-5.32E-06
Togo	3.48E-06	0.0000143	0.0000126	0.0000685
Tunisia	-0.0002675	-0.0002563	9.72E-06	0.0003229
Turkey	0.0004264	0.0002439	0.0001625	0.0002425
United Kingdom	-0.0001131	-0.0002146	-0.0000798	-0.0001543
Ukaraine	0.0007085	0.0006807	-0.0001536	-0.0000491
Uganda	-0.000017	8.93E-06	-2.44E-06	0.0000146
Uzbekistan	-5.67E-06	-0.0000275	0.0000163	-0.0000136
Vietnam	4.00E-06	0.0000104	-0.0000109	0.0000106
Yemen	6.92E-06	4.82E-06	-1.17E-06	2.65E-06
Zambia	0.0000305	-1.10E-06	0.0000408	0.0000557
Zimbawe	-0.0000111	-0.0000119	-0.0000104	-0.0000116

Table A6 – Exposure to arrivals and electoral outcomes: the role of internet diffusion

	(1)	(2)		(3)	(4)		(5)	(6)		(7)	(8)		(9)	(10)	
Dependent Variables:	*Turnout*			*Protest votes*			*Share of vote for anti-immigration parties*			*Share of vote for populist parties*			*Share of vote for Northern League*		
	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile
Exposure index	-0.0025***	-0.0018*	-0.0020**	0.0010**	0.0014**	0.0012	0.0024**	0.0027*	0.0013	0.0057***	0.0063**	0.0010	0.0030	0.0068*	0.0011
	(0.0008)	(0.0009)	(0.0010)	(0.0004)	(0.0006)	(0.0008)	(0.0012)	(0.0015)	(0.0007)	(0.0018)	(0.0024)	(0.0009)	(0.0028)	(0.0037)	(0.0018)
Exposure index (0-30 days before elections)	-0.0011***	-0.0006**	-0.0007*	0.0003**	0.0004**	0.0003	0.0009*	0.0013	0.0011**	0.0018**	0.0029***	0.0009**	0.0010	0.0020	0.0019*
	(0.0002)	(0.0002)	(0.0004)	(0.0001)	(0.0001)	(0.0003)	(0.0004)	(0.0008)	(0.0004)	(0.0007)	(0.0009)	(0.0004)	(0.0011)	(0.0016)	(0.0010)
Exposure index (0-60 days before elections)	-0.0011***	-0.0007**	-0.0008*	0.0004***	0.0006**	0.0004	0.0011**	0.0012*	0.0007**	0.0025***	0.0029***	0.0006	0.0014	0.0029*	0.0009
	(0.0003)	(0.0003)	(0.0004)	(0.0001)	(0.0002)	(0.0003)	(0.0004)	(0.0006)	(0.0003)	(0.0007)	(0.0010)	(0.0004)	(0.0011)	(0.0017)	(0.0008)
Exposure index (0-90 days before elections)	-0.0011***	-0.0007**	-0.0009**	0.0004**	0.0006**	0.0005	0.0011**	0.0012*	0.0006*	0.0025***	0.0028***	0.0005	0.0013	0.0028*	0.0006
	(0.0003)	(0.0004)	(0.0004)	(0.0001)	(0.0002)	(0.0003)	(0.0005)	(0.0006)	(0.0003)	(0.0008)	(0.0010)	(0.0004)	(0.0012)	(0.0016)	(0.0008)
Observations	1,804	1,803	1,790	1,804	1,803	1,790	1,804	1,803	1,790	1,804	1,803	1,790	757	757	750
Number of municipalities	903	902	901	903	902	901	903	902	901	903	902	901	379	379	379

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1
Note: % households without access at least at 2mb - tertiles by macroarea computed using data on digital divide for 2018 provided by AGICOM.

Table A7 – Exposure to arrivals and turnout: the role of crime

	(1)	(2)	(3)	(4)	(5)	(6)
	Crimes per voter			Crimes per voter - weighted		
	1st tertile	2nd tertile	3rd tertile	1st tertile	2nd tertile	3rd tertile
			Panel A: Turnout			
Exposure index	-0.0018**	-0.0027**	-0.0011	-0.0023***	-0.0019**	-0.0004
	(0.0007)	(0.0010)	(0.0013)	(0.0008)	(0.0008)	(0.0011)
Observations	2,553	1,660	1,098	2,550	1,363	1,398
R-squared	0.574	0.436	0.399	0.582	0.471	0.373
Number of municipalities	1,281	830	549	1,275	686	699
			Panel B: Protest votes			
Exposure index	0.0013***	0.0011	0.0008	0.0015***	0.0013**	0.0004
	(0.0004)	(0.0007)	(0.0009)	(0.0004)	(0.0006)	(0.0008)
Observations	2,553	1,660	1,098	2,550	1,363	1,398
R-squared	0.075	0.051	0.114	0.083	0.060	0.093
Number of municipalities	1,281	830	549	1,275	686	699
			Panel C: Anti-immigration votes			
Exposure index	0.0036**	0.0023**	0.0005	0.0046***	0.0020*	0.0001
	(0.0014)	(0.0010)	(0.0009)	(0.0015)	(0.0012)	(0.0008)
Observations	2,553	1,660	1,098	2,550	1,363	1,398
R-squared	0.044	0.059	0.033	0.053	0.040	0.054
Number of municipalities	1,281	830	549	1,275	686	699
			Panel D: Populist votes			
Exposure index	0.0069***	0.0061***	0.0013	0.0083***	0.0053***	0.0007
	(0.0021)	(0.0019)	(0.0011)	(0.0021)	(0.0019)	(0.0010)
Observations	2,553	1,660	1,098	2,550	1,363	1,398
R-squared	0.070	0.049	0.023	0.074	0.037	0.037
Number of municipalities	1,281	830	549	1,275	686	699
			Panel E: Northern-league votes			
Exposure index	0.0055	0.0041	-0.0001	0.0065*	0.0037	-0.0006
	(0.0032)	(0.0024)	(0.0021)	(0.0031)	(0.0026)	(0.0023)
Observations	1,247	542	428	1,290	553	374
R-squared	0.084	0.136	0.077	0.092	0.098	0.090
Number of municipalities	628	271	214	645	281	187

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1
The sample is split in tertiles by macro-area using the values of crime per capita at province level observed in 2010. Crimes per voter - weighted indicates that each crime committed by natives at province level has been weighted by the corresponding number of crimes of the same type committed by natives at national level.

Table A8 – Exposure to arrivals and votes for extreme-right parties: gross income per capita

	(1)	(2)	(3)
	Gross income per capita		
	1st tertile	*2nd tertile*	*3rd tertile*
		Panel A: Turnout	
Exposure index	-0.0000	-0.0009	-0.0042***
	(0.0009)	(0.0010)	(0.0009)
Observations	1,666	1,763	1,968
R-squared	0.385	0.508	0.615
Number of municipalities	839	882	985
		Panel B: Protest votes	
Exposure index	-0.0004	0.0001	0.0030***
	(0.0004)	(0.0006)	(0.0006)
Observations	1,666	1,763	1,968
R-squared	0.070	0.052	0.159
Number of municipalities	839	882	985
		Panel C: Anti-immigration votes	
Exposure index	0.0006	0.0009	0.0032**
	(0.0014)	(0.0008)	(0.0013)
Observations	1,666	1,763	1,968
R-squared	0.031	0.051	0.077
Number of municipalities	839	882	985
		Panel D: Populist votes	
Exposure index	0.0006	0.0021**	0.0065***
	(0.0016)	(0.0011)	(0.0022)
Observations	1,666	1,763	1,968
R-squared	0.020	0.043	0.130
Number of municipalities	839	882	985
		Panel E: Northern-league votes	
Exposure index	0.0019	0.0004	0.0052*
	(0.0037)	(0.0027)	(0.0026)
Observations	720	706	838
R-squared	0.062	0.106	0.136
Number of municipalities	364	353	420

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1
The sample is split in tertiles by macro-area using to the values of municipality's taxable income per capita observed in 2010.

Table A9 – Exposure to arrivals and votes for extreme-right parties: population size

	(1)	(2)	(3)
		Population	
	1st tertile	*2nd tertile*	*3rd tertile*
		Panel A: Turnout	
Exposure index	-0.0005	-0.0014	-0.0029***
	(0.0015)	(0.0010)	(0.0005)
Observations	1,650	1,618	2,127
R-squared	0.368	0.538	0.736
Number of municipalities	829	811	1,065
		Panel B: Protest votes	
Exposure index	0.0001	0.0005	0.0021***
	(0.0010)	(0.0005)	(0.0004)
Observations	1,650	1,618	2,127
R-squared	0.106	0.161	0.202
Number of municipalities	829	811	1,065
		Panel C: Anti-immigration votes	
Exposure index	-0.0009	0.0014	0.0034***
	(0.0006)	(0.0015)	(0.0011)
Observations	1,650	1,618	2,127
R-squared	0.022	0.032	0.105
Number of municipalities	829	811	1,065
		Panel D: Populist votes	
Exposure index	-0.0009	0.0012	0.0056***
	(0.0007)	(0.0015)	(0.0020)
Observations	1,650	1,618	2,127
R-squared	0.020	0.025	0.162
Number of municipalities	829	811	1,065
		Panel E: Northern-league votes	
Exposure index	-0.0024	0.0045	0.0049**
	(0.0021)	(0.0045)	(0.0023)
Observations	574	628	1,062
R-squared	0.035	0.073	0.156
Number of municipalities	289	316	532

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1
The sample is split in tertiles by macro-area using to the values of municipality's population observed in 2010.

Table A10 – Exposure to arrivals and votes for extreme-right parties: the role of unemployment

	(1)	(2)	(3)
		Unemployment	
	1st tertile	*2nd tertile*	*3rd tertile*
		Panel A: Turnout	
Exposure index	-0.0017	-0.0034***	-0.0019***
	(0.0010)	(0.0011)	(0.0006)
Observations	1,829	1,769	1,720
R-squared	0.499	0.477	0.467
Number of municipalities	919	881	860
		Panel B: Protest votes	
Exposure index	0.0003	0.0023**	0.0015***
	(0.0005)	(0.0009)	(0.0004)
Observations	1,829	1,769	1,720
R-squared	0.057	0.054	0.069
Number of municipalities	919	881	860
		Panel C: Anti-immigration votes	
Exposure index	0.0015	0.0037**	0.0021***
	(0.0011)	(0.0016)	(0.0008)
Observations	1,829	1,769	1,720
R-squared	0.041	0.052	0.053
Number of municipalities	919	881	860
		Panel D: Populist votes	
Exposure index	0.0034**	0.0063**	0.0053***
	(0.0015)	(0.0025)	(0.0016)
Observations	1,829	1,769	1,720
R-squared	0.027	0.069	0.102
Number of municipalities	919	881	860
		Panel E: Northern-league votes	
Exposure index	0.0027	0.0126***	0.0012
	(0.0019)	(0.0035)	(0.0018)
Observations	829	715	674
R-squared	0.078	0.146	0.092
Number of municipalities	419	357	337

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1
The sample is split in tertiles by macro-area using the unemployment rate at province level in 2010.

Table A11 – Exposure to arrivals and votes for extreme-right parties: competition for public services

	(1)	(2)	(3)
	Share of children aged 0-4		
	1st tertile	*2nd tertile*	*3rd tertile*
		Panel A: Turnout	
Exposure index	-0.0003	-0.0014	-0.0044***
	(0.0011)	(0.0009)	(0.0010)
Observations	1,831	1,841	1,723
R-squared	0.405	0.529	0.548
Number of municipalities	920	922	863
		Panel B: Protest votes	
Exposure index	-0.0003	0.0019***	0.0021***
	(0.0006)	(0.0005)	(0.0007)
Observations	1,831	1,841	1,723
R-squared	0.059	0.074	0.091
Number of municipalities	920	922	863
		Panel C: Anti-immigration votes	
Exposure index	0.0014	0.0031***	0.0019**
	(0.0015)	(0.0011)	(0.0009)
Observations	1,831	1,841	1,723
R-squared	0.042	0.051	0.060
Number of municipalities	920	922	863
		Panel D: Populist votes	
Exposure index	0.0028	0.0067***	0.0036***
	(0.0018)	(0.0019)	(0.0013)
Observations	1,831	1,841	1,723
R-squared	0.039	0.077	0.072
Number of municipalities	920	922	863
		Panel E: Northern-league votes	
Exposure index	0.0032	0.0059**	0.0005
	(0.0037)	(0.0024)	(0.0029)
Observations	711	795	758
R-squared	0.083	0.096	0.129
Number of municipalities	358	399	380

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1
The sample is split in tertiles by macro-area using the share of children aged 0-4 in 2010.

Table A12 – Exposure to arrivals and share of populist votes – Alternative definition

	(1)	(2)	(3)	(4)
	Dependent Variable: *Share of votes for populist parties*			
Exposure index	0.0031***			
	(0.0008)			
Exposure index (30 days before elections)		0.0012***		
		(0.0004)		
Exposure index (0-60 days before elections)			0.0014***	
			(0.0003)	
Exposure index (0-90 days before elections)				0.0014***
				(0.0003)
Observations	5,397	5,397	5,397	5,397
R-squared	0.030	0.031	0.031	0.030
Number of municipalities	2,706	2,706	2,706	2,706

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table A13 – Exposure to arrivals and electoral outcomes – Elasticities

	(1)	(2)	(3)	(4)	(5)
Dependent Variables:	Turnout	Protest votes	Share of vote for anti-immigration parties	Share of vote for populist parties	Share of vote for Northern League
Exposure index	-0.0059***	0.0047***	0.0089***	0.0218***	0.0126*
	(0.0016)	(0.0013)	(0.0026)	(0.0039)	(0.0069)
Exposure index (30 days before elections)	-0.0036***	0.0020**	0.0083***	0.0149***	0.0132**
	(0.0011)	(0.0009)	(0.0021)	(0.0027)	(0.0051)
Exposure index (0-60 days before elections)	-0.0041***	0.0031***	0.0067***	0.0154***	0.0100*
	(0.0012)	(0.0010)	(0.0019)	(0.0028)	(0.0051)
Exposure index (0-90 days before elections)	-0.0042***	0.0033***	0.0062***	0.0153***	0.0090*
	(0.0012)	(0.0010)	(0.0019)	(0.0028)	(0.0052)
Observations	5,397	5,397	5,397	5,397	2,264
Number of municipalities	2,706	2,706	2,706	2,706	1,137

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1. Dependent variables such as turnout, protest votes or vote shares for anti-immigrant, populist parties and Northern League are taken in logs. The key explanatory variables such as the change in the exposure to migration at municipality level taking into account all the arrivals occurring from the beginning of the year to the election day, and subsequently shorter time spans such as 0-30, 0-60 or 0-90 days before elections, alternatively, are taken in log.

Table A14 – Exposure to arrivals and electoral outcomes – Different time-windows

	(1)	(2)	(3)	(4)	(5)
Dependent Variables:	Turnout	Protest votes	Share of vote for anti-immigration parties	Share of vote for populist parties	Share of vote for Northern League
Exposure index (30 days before elections)	-0.0010***	0.0003	0.0012*	0.0017***	0.0019*
	(0.0003)	(0.0002)	(0.0007)	(0.0007)	(0.0011)
Exposure index (30-60 days before elections)	0.0009	0.0000	0.0005	0.0012	-0.0011
	(0.0008)	(0.0006)	(0.0007)	(0.0011)	(0.0019)
Exposure index (60-90 days before elections)	-0.0009	0.0003	-0.0008	-0.0009	0.0012
	(0.0007)	(0.0005)	(0.0009)	(0.0013)	(0.0019)
Observations	5,397	5,397	5,397	5,397	2,264
Number of municipalities	2,706	2,706	2,706	2,706	1,137

Robust standard errors in parentheses clustered at province level. All models include year dummies.
*** p<0.01, ** p<0.05, * p<0.1

Table A15 – Distance in km of that municipality from the ports of arrival

	(1)	(2)	(3)
	Average distance from landing harbors		
	1st tertile	*2nd tertile*	*3rd tertile*
		Panel A: Turnout	
Exposure index	-0.0019**	-0.0037***	-0.0014
	(0.0007)	(0.0010)	(0.0014)
Observations	1,775	1,788	1,834
R-squared	0.433	0.508	0.498
Number of municipalities	963	1,045	991
		Panel B: Protest votes	
Exposure index	0.0008*	0.0015***	0.0014
	(0.0004)	(0.0005)	(0.0011)
Observations	1,775	1,788	1,834
R-squared	0.055	0.080	0.084
Number of municipalities	963	1,045	991
		Panel C: Anti-immigration votes	
Exposure index	0.0022*	0.0022**	0.0012
	(0.0013)	(0.0009)	(0.0012)
Observations	1,775	1,788	1,834
R-squared	0.059	0.044	0.043
Number of municipalities	963	1,045	991
		Panel D: Populist votes	
Exposure index	0.0045**	0.0055***	0.0034**
	(0.0020)	(0.0020)	(0.0016)
Observations	1,775	1,788	1,834
R-squared	0.045	0.081	0.044
Number of municipalities	963	1,045	991
		Panel E: Northern-league votes	
Exposure index	0.0034	0.0028	-0.0002
	(0.0036)	(0.0023)	(0.0029)
Observations	763	752	749
R-squared	0.146	0.078	0.062
Number of municipalities	411	435	404

Robust standard errors in parentheses clustered at province level. All models include year dummies. *** p<0.01, ** p<0.05, * p<0.1
The sample is split in tertiles using the average distance from landing harbours by macro-area and year.

Figure A1 – Levels of the Italian migrants' reception system

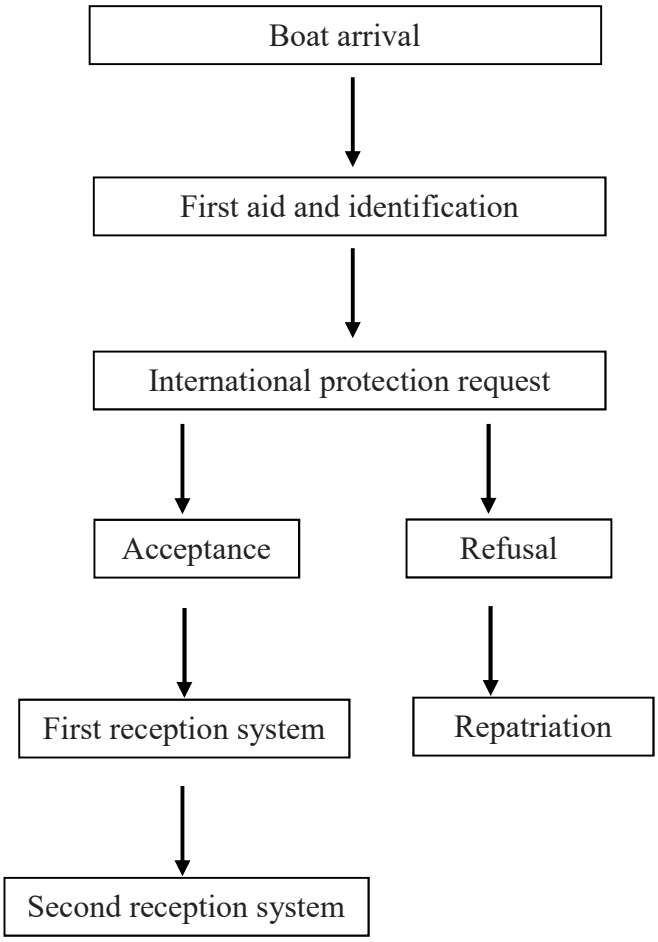
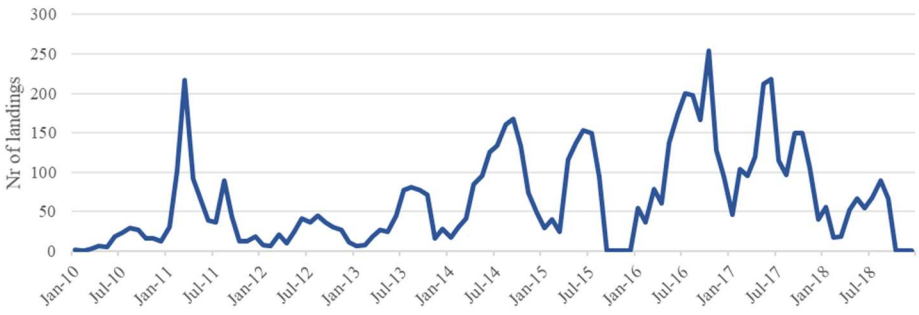


Figure A2 – Illegal boat landings from 1st January 2010 to 31st December 2018

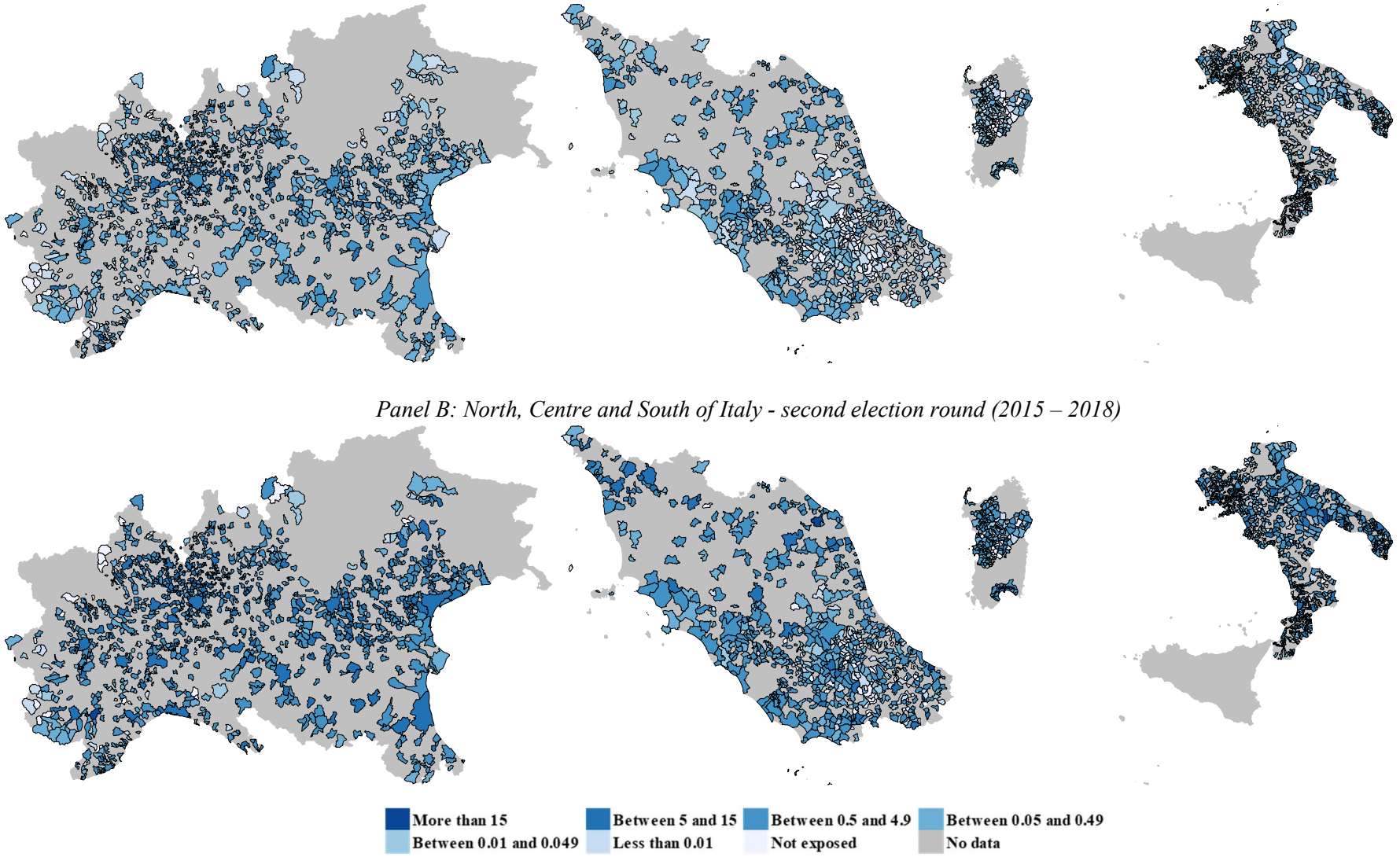


Note: Our elaboration based on Ministry of Interior data. Number of illegal boat landings in Italy from 1st January 2010 to 31st December 2018

Figure A3 - Distribution of the exposure index across Italian municipalities in the first and the second election round

Panel A: North, Centre and South of Italy - first election round (2010 – 2013)

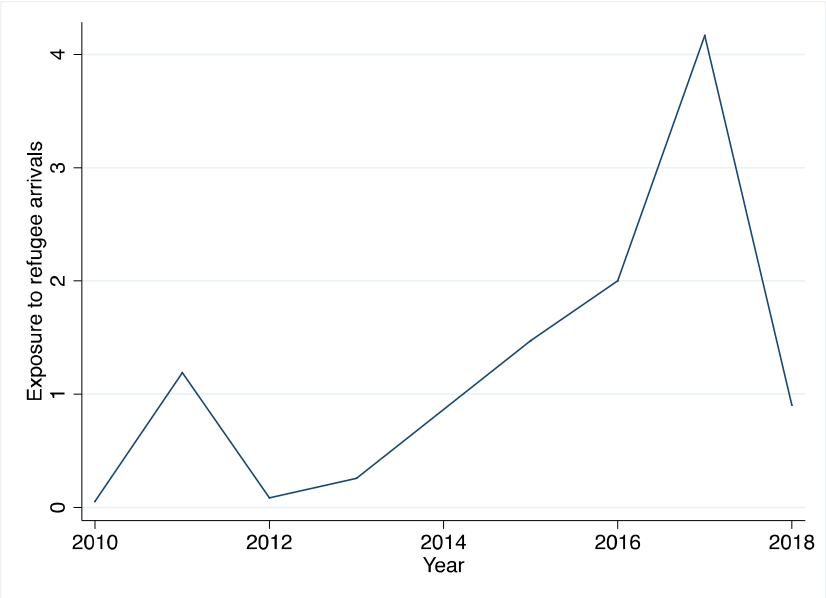
Panel B: North, Centre and South of Italy - second election round (2015 – 2018)



Source: Our elaboration, based on population composition per nationality at municipal level and boat landing data

Figure A4– Evolution of exposure to arrivals

Panel A



Panel B

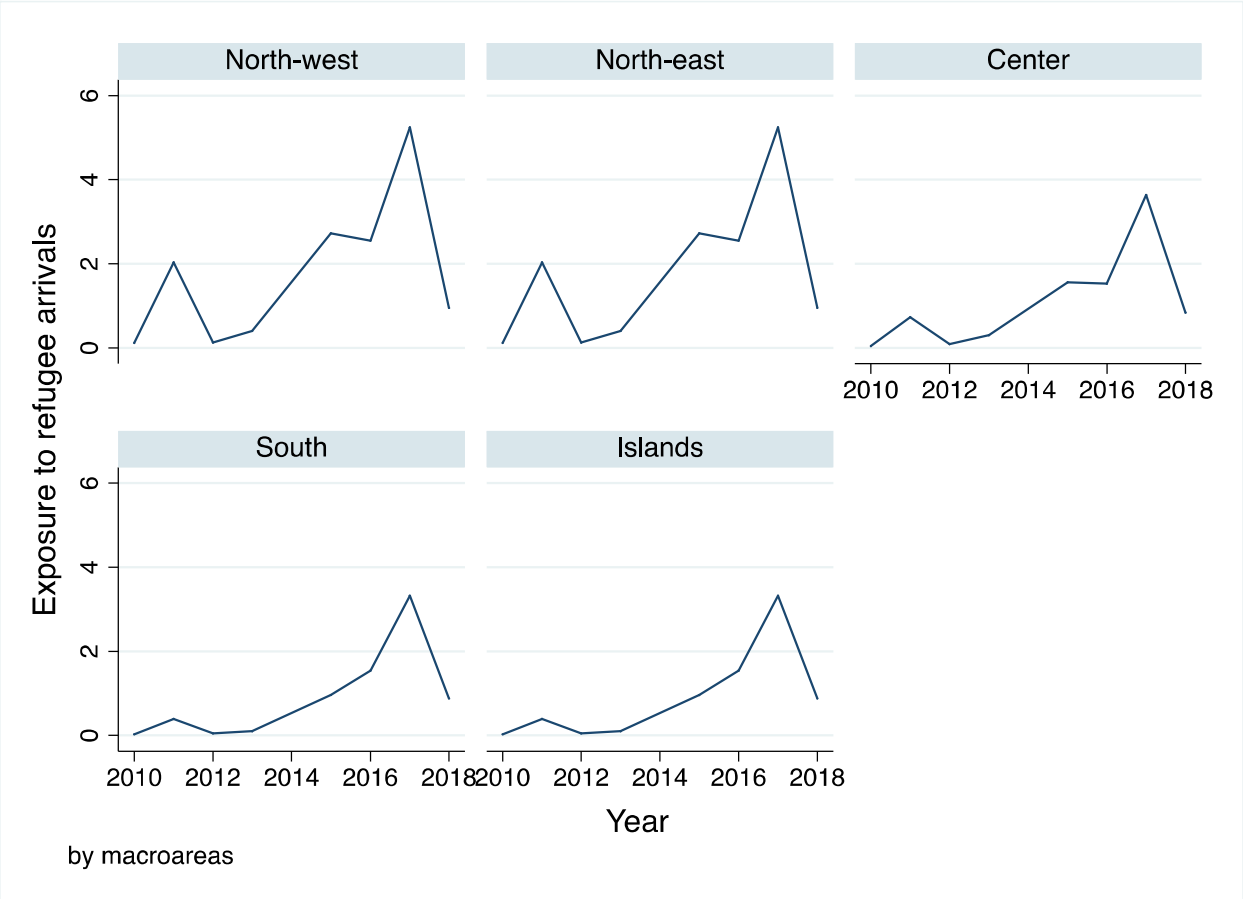
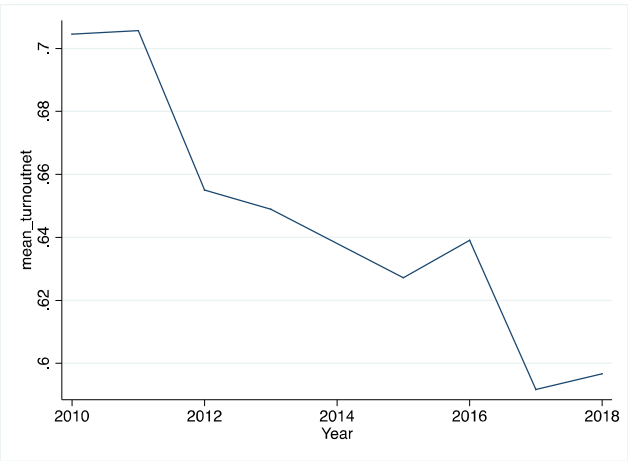


Figure A5 – Turnout and protest votes

Panel A



Panel B

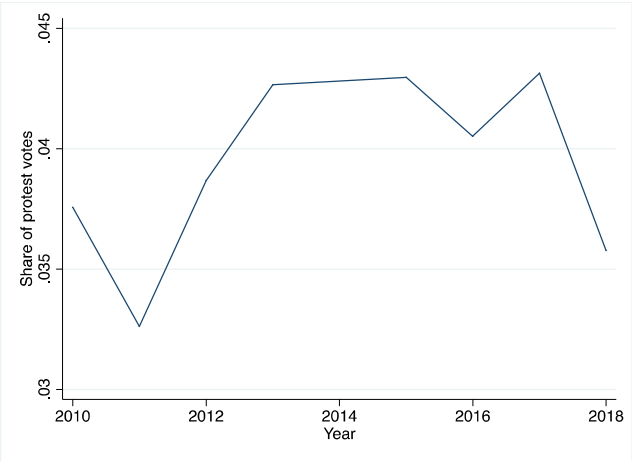
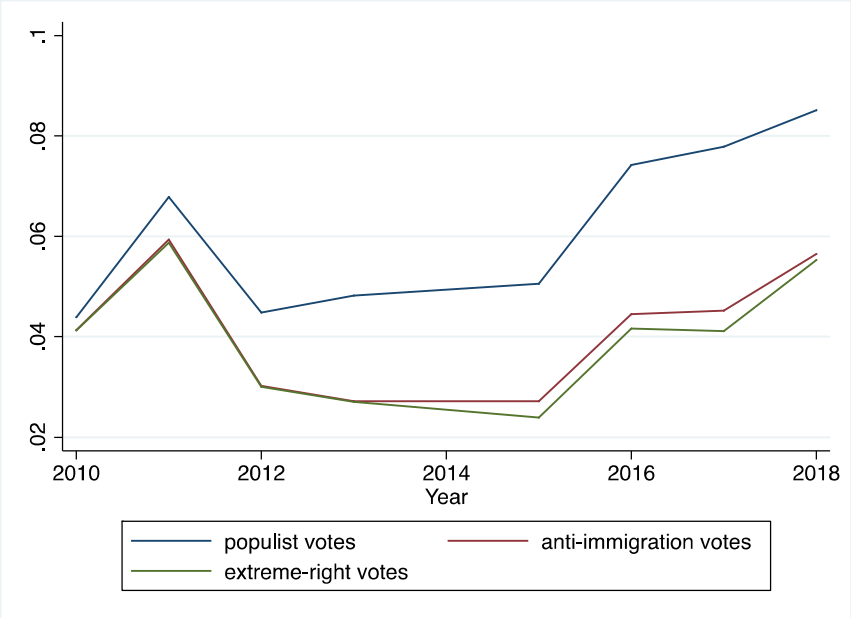


Figure A6 – Populist, extreme-right and anti-immigration votes

Panel A



Panel B

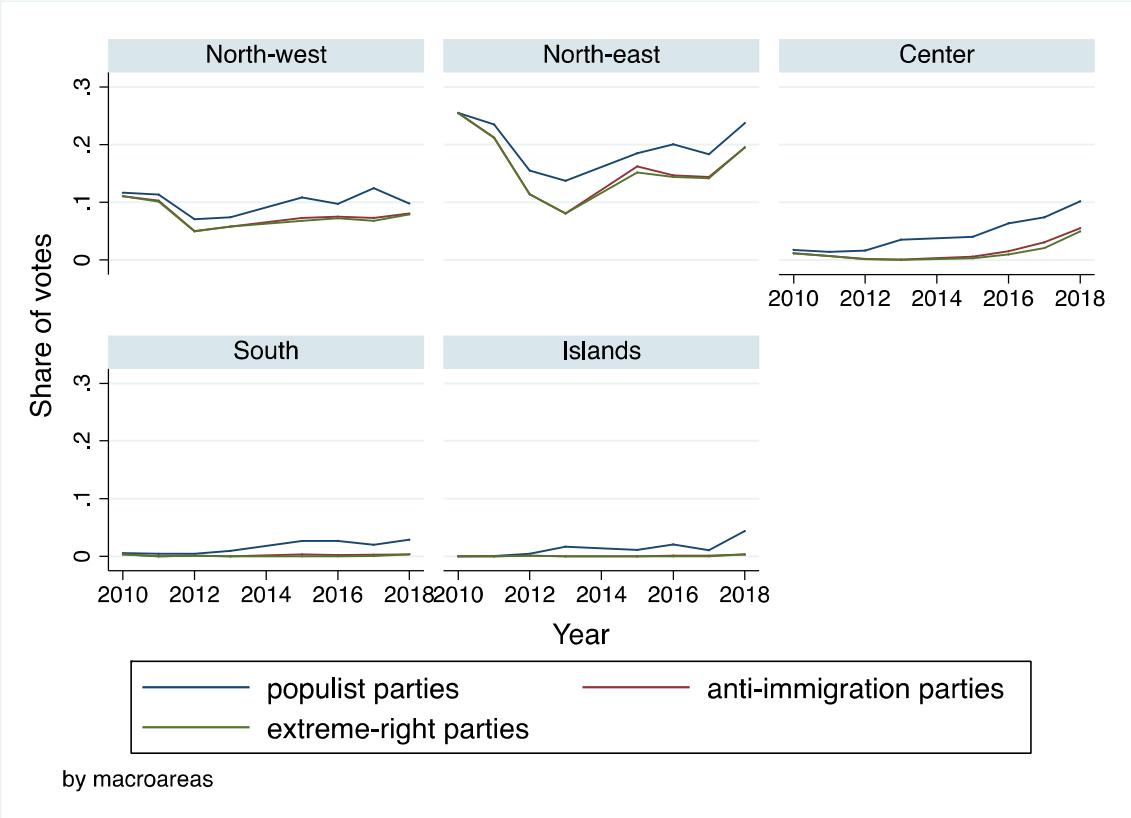
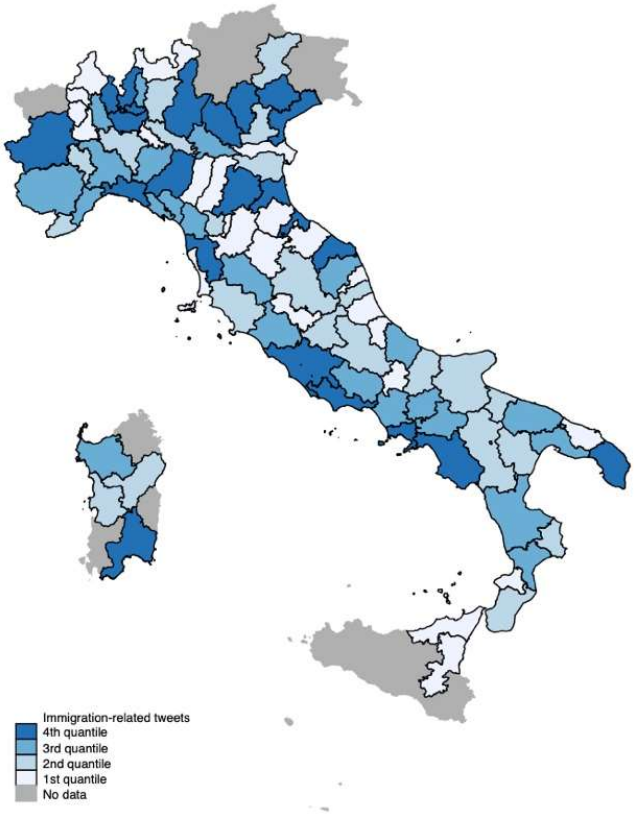


Figure A7 – Immigration-related tweets across Italian provinces (average 2010-2018)

Panel A – All provinces



Panel B – Provinces with municipalities that voted at least once in the period 2010-2018