SPRU Working Paper Series
SWPS 2017-21 (October)

Hate at First Sight? Dynamic Aspects of the Electoral Impact of Migrations: The Case of the UK and Brexit

Eugenio Levi, Rama Dasi Mariani
and Fabrizio Patriarca

UNIVERSITY
OF SUSSEX

SPRU Working Paper Series (ISSN 2057-6668)

The SPRU Working Paper Series aims to accelerate the public availability of the research undertaken by SPRU-associated people, and other research that is of considerable interest within SPRU, providing access to early copies of SPRU research.

Guidelines for authors

Papers should be submitted to swps@sussex.ac.uk as a PDF or Word file. The first page should include: title, abstract, keywords, and authors' names and affiliations. The paper will be considered for publication by an Associate Editor, who may ask two referees to provide a light review. We aim to send referee reports within three weeks from submission. Authors may be requested to submit a revised version of the paper with a reply to the referees' comments to swps@sussex.ac.uk. The Editors make the final decision on the inclusion of the paper in the series. When submitting, the authors should indicate if the paper has already undergone peer-review (in other series, journals, or books), in which case the Editors may decide to skip the review process. Once the paper is included in the SWPS, the authors maintain the copyright.

Websites

UoS: www.sussex.ac.uk/spru/research/swps

SSRN: http://www.ssrn.com/link/SPRU-RES.html

IDEAS: ideas.repec.org/s/sru/ssewps.html

Research Gate: www.researchgate.net/journal/2057-6668_SPRU_Working_Paper_Series

Hate at first sight? Dynamic aspects of the electoral impact of migrations: the case of the UK and Brexit

Eugenio Levi, Rama Dasi Mariani, Fabrizio Patriarca

Sapienza University of Rome

Abstract: Recent studies provide evidence that immigration has a significant positive effect on the vote for parties with anti-immigration agendas. However, this result does not emerge if we apply the same empirical analysis to the UK, whether in the case of Brexit, or if we consider support for Ukip or the political intentions expressed in the BES survey. To account for this and other fragmented evidence in the literature on personal attitudes towards immigration, we formulate the hypothesis that the increase in anti-immigration views resulting from an increased number of immigrants in a neighbourhood is a temporary effect. Different underlying mechanisms may be at the root of such negative short-run effects, such as material concerns about the adjustment cost of new migration flows, or prejudicial attitudes, both denoting a "hate at first sight" effect. We build an econometric strategy to test for the existence of such a short-run effect in the case of Brexit and then assess the robustness of our result using a panel of the vote for Ukip and individual data from the BES survey. The evidence robustly supports our hypothesis and provides a basis for further analysis.

Keywords: Immigration, Voting, Political Economy, Brexit, Biased attitudes.

JEL codes : P16 J61 D72 D83

1. Introduction

Immigration has recently become a key issue in European and US public debate. Though hardly a new topic, immigration has gained a significant role on the political agenda and has influenced voting preferences in various recent elections. Recent studies (Otto and Steinhardt, 2014; Barone et al., 2016; Dustmann et al., 2016; Steinmayr, 2016; Halla et al., 2017) have investigated the *causal role* of immigration on voting, i.e. how individual voting preferences are influenced by the stock of immigrants in the neighbourhood. Most of them provide evidence that living in an area with a higher number of immigrants increases the probability of voting for parties that promote tighter immigration policies. Nevertheless, a minority of these studies yield the opposite result for recent elections (Steinmayer, 2016; Colantone e Stanig, 2016), and the literature that has focused directly on natives' attitudes towards immigration, rather than on voting, has not observed a significant effect caused by the stock of foreign-born individuals (Sheve and Slaughter 2001; Card et al., 2005). Anecdotal evidence relating to the latest US Presidential Election points in the same direction.[1] Furthermore, among the findings of the present paper, we provide evidence that if we apply the methodology used in previous literature, the positive correlation between immigration levels and anti-immigration positions is not confirmed in the case of the UK. Here neither the case of Brexit nor support for the UK Independence Party (Ukip), nor the political intentions expressed in the British Election Study (BES) questionnaires provide evidence of such an impact being produced by the immigrant stock.

Basing ourselves on this puzzling framework, we formulate the hypothesis that increased opposition to immigration is a temporary effect. The effect of recent immigrant flows may be different than that produced by the overall stock of immigrants. In other words, the time dimension may hold the key to understanding the way immigration affects voting preferences. Disentangling these two effects is our paper's main innovation, and will give us insights into how immigration impacts political outcomes that could have relevant policy implications. Different underlying mechanisms may be at the root of such negative

[1] http://www.motherjones.com/kevin-drum/2016/11/support-trump-strongest-where- illegal-immigration-lowest, http://www.nytimes.com/2016/11/11/opinion/identity-over- ideology.html

short-run effects, such as material concerns about the adjustment cost of new migrant inflows (the early phases of new immigrant integration), or prejudicial attitudes (initial attitudes not confirmed by experience), both denoting a “hate at first sight” effect.

With regard to the former, it is important to note that integration does not happen overnight. In fact, initially immigration can place increased pressure on the welfare system and labour market, causing natives to react with hostility to the new immigrant flows. Over time, as local authorities and the native population learn to cope with the process, a potential initial situation of distress may be mitigated. The extensive literature that analyses personal attitudes to immigration has pointed out the negative attitudes regarding the effects of immigration on the labour market, on crime and on cultural homogeneity (e.g. Sheve and Slaughter, 2001; Card et al., 2005). These attitudes may not reflect the effects of immigration, but may simply represent perceptions influenced by a failure to anticipate the immigrants' integration.

In the case of prejudicial attitudes, Arrow (1971) suggests that individuals only resort to stereotyping immigrants when they lack information on their habits, customs and traditions. Therefore, as soon as direct information on the new immigrant neighbours is acquired, the negative attitude produced by their presence should cease. A similar argument is that political narratives on immigration may be more effective where immigration is more recent, as recent changes in the composition of a neighbourhood's population may make them more salient.

The fact that the perception of attitudes towards immigration are an issue in themselves is supported by evidence showing that the extent of the immigration (as a whole) is habitually overestimated. In the case of the UK (Ipsos Mori, 2016), British citizens think that an average of 15% of UK residents were born in another European country (the figure grows to 20% among Brexiters), while the actual figure is only 5%. Moreover, they think that European citizens make up only 25% of the immigrant population as a whole, whereas the actual figure is 37%.

A recent multi-country experiment has confirmed how this powerful bias is also at work in other receiving countries (Gregorieff et al., 2016). Moreover, when subjects are provided

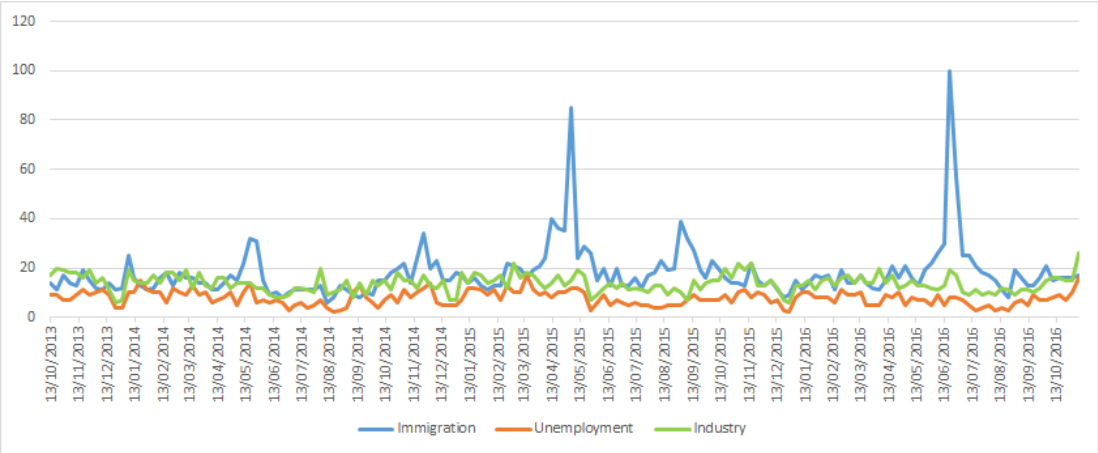
with correct information on immigrant population proportions, their attitudes towards them immediately and permanently become more positive.

There is therefore already evidence to suggest that a process of learning about immigration may occur over time, mitigating the "hate at first sight" effect. This opens up a new area for analysis: i.e. how the resulting prejudicial attitudes are formed and how they can be overcome.

The short-run negative effects of new immigration flows can be tested by examining whether areas of more recent immigration return more anti-immigrant votes than areas where immigration has a longer history. From this analysis, we may derive some insight as to why previous studies offer contradictory results. Furthermore, the fact that migration to larger urban centres generally goes back further than migration to more rural areas may account for the differences we observe in the effects of immigration in these two different contexts.

Our case study is the 2016 UK Referendum on the country's membership of the European Union. We start from the hypothesis that people's views on immigration played a major role in the victory of "Leave" over "Remain", i.e. the victory of the Brexit camp. In figure 1 we show the Google News Trend index for three different topics: immigration, unemployment and industry. Unlike in the case of the two other topics, in the days preceding recent elections (the May 2014 European Elections and the General Election of May 2015) a surge of interest over immigration can be observed, which disappears shortly afterwards. This Index reaches its highest peak during the weeks leading up to the referendum on EU membership.

Figure 1: Google Trends in UK by topic



An Ipsos MORI poll from June 2016 offers reasons to think that non-rational beliefs played a substantial role in the framing of the referendum. The research company reported that 33% of subjects said they would decide how to vote in the referendum based on the issue of the number of immigrants entering Britain, whereas more than 28% said they would base their decision on economic concerns. Only 12% reported that their decision would be nationalism-related. Some commentators state explicitly that the Brexit result was more about xenophobia than Europe.

If we take these reports seriously, the referendum gives us an opportunity to observe the effects of immigration on the popular vote. Data from the European Social Survey also confirms that the question of Britain's membership of the European Union has indeed been framed by the issue of immigration.

We use estimation methodology common to recent literature and thus deal with endogeneity issues (Halla, et al. 2017, Barone et al. 2016) using the instrument proposed by Altonji and Card (1991), which looks at the network effect, i.e. the fact that immigrants tend to move to locations where a group of immigrants of the same ethnicity is already present. The assumption is that the local pull factors that attracted immigrants in the past (in 1981 and 1991) are uncorrelated with more recent political preferences. Data supports

our hypothesis, confirming that the effect of immigration on voting is a dynamic process. The short-run effect has a stronger negative impact than the long-run effect.

Despite the relevance of the 2016 Brexit referendum as a case study, the data available suffers from the limitations that apply to cross sectional and regional level data. To overcome these drawbacks, we carry out robustness checks using two strategies: we analyse votes for Ukip, an extreme right wing party, in the 2004, 2009 and 2014 European Elections, using panel estimations with instrumental variables; then we analyse individual data on personal attitudes towards immigration and votes for Ukip and Brexit from the British Election Study.

In the next section, we begin by providing a review of the literature on the political effects of immigration and discrimination. We then offer an overview of the Brexit case, focusing on the political impact of the immigration issue, before moving on to the econometric analysis in sections 4 and 5. The final section presents our conclusions.

2. Related Literature

This paper is related first and foremost to a literature looking at the effects of immigration on electoral outcomes. Most studies belonging to this branch (Barone et al., 2016; Dustmann et al., 2016; Halla et al., 2017; Otto and Steinhardt, 2014) find a positive correlation between the flow of immigrants to a region and votes for parties with clear anti-immigration agendas. It should be noted, however, that these results are not without caveats. For instance, the panel dataset covering six general elections in Austria - on which Halla et al. (2017) base their work - allows the authors to break down the effect for each round of voting. What they find is that *"[...] the immigrants' cultural distance to Austrian society mattered (only) at the beginning of the sample period"*.[2]

More importantly, big cities are observed to behave differently in all the studies. Barone et al. (2016) suggest three alternative explanations for this pattern. Firstly, urban areas are

[2]Halla et al. (2017) p. 5.

characterised by a more highly skilled population.[3] A well-known result that emerges from the studies on natives' attitudes towards immigration (Sheve and Slaughter, 2001; Mayda, 2006; Facchini and Mayda, 2009; Card et al., 2012) is that natives may perceive immigrants with skill sets similar to their own as producing greater competition in the labour market. Given that immigration to the European countries is mainly unskilled, support for parties with an anti-immigration agenda will therefore tend to emerge among the low-skilled native population. Of note is the fact that the singularity of big cities holds even when controlling for the skill-composition of the population. Secondly, large urban areas contain more segmented neighbourhoods. Natives benefit from the positive effects of immigration (e.g. cheaper personal services), while they do not perceive any negative side effects, such as social segregation, crime or competition for local amenities. Otto and Steinhardt (2016), however, focus on the city districts of Hamburg (Germany) and what they find contradicts this hypothesis. What emerges from their disaggregated level of analysis is that immigrants induce changes in neighbourhoods and schools, and that districts with a higher concentration of immigrant children produce significantly higher shares of votes for extreme right-wing parties. Thirdly, "*immigration in big cities may have started sooner than in small municipalities*".[4] The process of integrating a foreign population into a receiving society takes time. Social and economic frictions may emerge at the beginning, but once the immigrant community has settled, additional inflows do not lead to further changes in natives' attitudes. Most studies on the effects of immigration on voting behaviour make use of a panel data model, which fails to capture such dynamics. As we will discuss in further detail later, an analysis with fixed effects can show the effect of a variation in the number of immigrants on the change in the number of votes, regardless of the size or history of an existing foreign community. Our idea is that a direct experience of the phenomenon of immigration triggers a learning and adjustment process that mitigates the initial hostility. In the same vein, Steinmayr (2016) – the only one to find a negative

[3]In the Italian dataset of Barone et al. (2016), the share of graduates in urban municipalities is about double that of the population living elsewhere.

[4]Barone et al. (2016) p. 7

correlation between the presence of refugees and the share of votes for extreme right-wing parties – interprets his results in the light of the *contact theory* (Allport, 1954).

In our study we also refer to social psychology and behavioural economics to better analyse how the presence of immigrants affects natives' attitudes. Allport (1954) is among the social psychologists who maintain that the meeting of different identities does not necessarily trigger social conflict. While 'groupness' originates as a survival strategy, rather than emerging from intergroup comparisons, the primary behaviour associated with groups is ingroup favouritism (Brewer, 2007). Individuals share stronger social preferences with members of the same group while not necessarily discriminating against members of other groups. In the absence of specific motives for outgroup hate, individuals from different groups interact only as individuals.[5] The results of experiments conducted on cooperation and group identity are consistent with this theory (Ahmed, 2007; Yamagishi and Mifune, 2009).

However, other factors may be at work in the interaction between individuals with different identities. One of these is statistical discrimination (Arrow 1971). When individuals do not possess sufficient information on the habits, customs and traditions of another group, they resort to stereotypes. There is evidence that this is indeed the case where ethnic differences are concerned. In one experiment (Castillo and Petrie, 2010) subjects had to express their preferences for partners for a cooperation game. In one test, they only knew the ethnic group of their potential partner (Black, White, Asian, etc.). In the other, they had additional information on the potential partner's behaviour in a previous cooperation game. Castillo and Petrie (2010) found discrimination at work against subjects from Black ethnic groups when the ethnic group was the only piece of information available. However, discrimination disappeared in the test where people were provided with additional information. These results support the hypothesis that prejudice can be used to explain

[5]There is some evidence that points in the opposite direction. For example, subjects discriminate against outgroups in trust games with minimal group identity (Hargreaves Heap and Zizzo, 2009; Corr et al., 2015).

discrimination. It also implies that individuals provided with sufficient individual-level information on the members of another group may overcome discrimination.

Another factor behind discrimination is the belief that there is a difference in status between the individual's group and another one. In this case, not only do people want to favour their own group, but also to maintain the perceived positive distinctiveness they associate with it (Tajfel and Turner, 1979). From this point of view, immigrants can be perceived as a threat, particularly if there is competition between groups over resources (Sherif et al., 1961; Campbell, 1965). Some support for this thesis comes from an experiment using an inter-group conflict game in which subjects were found to over-contribute to their own group in order to sustain intergroup conflict, even when this behaviour resulted in highly inefficient outcomes when compared to their behaviour when playing as individuals (Abbink et al., 2010). Where there is conflict over resources, inefficient competition between groups can be a lasting factor.

A recent contribution by Sekeris and Vasilakis (2016) on the impact of the refugee crisis on the Greek elections highlights the effects of pure xenophobia. The context of the analysis and the timing of the vote offer an explanation for the effects of immigrant arrivals in a municipality in terms of the discriminatory attitudes of the receiving population. The present study also considers immigrant flows. However, by also taking into account the stock of immigrants in a region, our analysis can shed a light on the dynamic aspects of the political impact of immigration.

3 The case of Brexit

3.1 Politics and immigration in the UK

Right from the very beginning of the national debate on the Referendum on UK membership of the European Union, the “Leave” option – which would eventually prevail on 23rd June 2016 with 17,410,742 votes, just under 52% –was linked to the issue of immigration. The two topics were linked throughout the discussion, by both public actors and the media.

During his campaign for the 2015 General Election, David Cameron committed to calling a referendum on UK membership of the EU and renewed the Conservatives' pledge on immigration targets. Indeed, his manifesto for the 2010 election was to "[...] take steps to take net migration back to the levels of the 1990's".[6] "No ifs. No buts" was the slogan of the pledge to reduce entries to 100,000 per year. As a result of stricter controls on "bogus" colleges and a rationing of visas for non-EU citizens, immigration did begin to fall in 2011. Nevertheless, the ongoing economic crisis, which has led to a general increase in migration flows all over Europe, and the ending of European transitional arrangements for the free movement of workers from Bulgaria and Romania inverted the trend. Eurosceptics took advantage of David Cameron's failure to keep his promise and Nigel Farage used it as proof of Britain's limited ability to control its own borders as long as it remained a member of the EU.

The composition of the current population of the UK reflects immigration flows to Great Britain since the independence of the Republic of Ireland in 1922. During World War II, due to the need for a greater workforce, the government chose not to introduce restrictions on inflows. Particularly significant was the arrival of individuals coming from the Commonwealth and other countries and regions that were previously part of the British Empire – particularly India, Pakistan and the Caribbean. At that time, these people all held British passports and they established important communities throughout Britain, such as the Indian community in London and the Pakistani ones in Birmingham and Bradford.

Another important source of economic migration was the *Guest Workers Programme*, under which many Polish and Ukrainian citizens moved to the UK. These were unskilled workers and were expected to settle only temporarily. Immigration from Europe began to rise in 2004 and today European citizens living in the UK represent 37% of the total immigrant population. Less relevant in the history of the UK are asylum seekers arriving under the UN 1951 Refugee Convention.[7]

---

[6]http://www.telegraph.co.uk/news/2016/10/04/theresa-mays-devotion-to-david-camerons-net-migration-target-is

[7]OECD (2016), International Migration Outlook 2016, OECD Publishing, Paris

Cultural and social concerns about the growth of the foreign population already existed among the conservative electorate, but the shift in legislation happened with the vast increase in unemployment during the 1970s. The British Nationality Act 1981 – in force since 1983 – distinguished between British citizens and British Overseas Territories citizens. It also changed the way nationality is inherited, thereby limiting the number of immigrants and their children who could enter and live in Great Britain.

Another significant change was the points-based immigration system, introduced in 2006 for workers and students coming from outside Europe. Immigration to the UK has become officially managed and highly educated individuals who bring skills which are in short supply in the UK are favoured. As previously mentioned, in 2010 Mr Cameron's government imposed further restrictions on visas, namely on the quota of non-EU visas, and increased controls over immigration. What comes next is part of the current debate.

3.2 The framing of the European issue

Data from the 2014 European Social Survey (ESS) offers some evidence of the existence of a link between attitudes to immigration and people's attitudes towards the European Union (Table 1). We analyse UK data from the 2014 survey, excluding observations from Northern Ireland and Scotland. There are two questions in this survey that capture people's attitudes towards the European Union. The first, concerning people's trust in the European Parliament, asks: "Please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly, how much do you personally trust the European Parliament?" The second one concerns the process of European unification. It says: "Now thinking about the European Union, some say European unification should go further. Others say it has already gone too far. Using this card, what number on the scale best describes your position?". At the lower extreme, i.e. 0, the answer corresponds to "Unification already gone too far"; at the upper extreme, i.e. 10, to "Unification should go further". This second question is basically "Leave" or "Remain" with a wider number of options and with less prominence given to the actual choices.

We find that self-reported attitudes towards Europe show a high correlation to issues relating to immigration, the economy and trust in the national government, as we observed in the Ipsos MORI poll at the beginning of this paper. We also find moderate but highly significant correlations with watching TV, with subjective happiness and with trust in other people. If we perform the same analysis for other European countries, we find more or less the same set of correlations with comparable magnitudes. Here we only report results from Germany, but these are consistent with those observed in France and Italy. This suggests that people's attitudes towards the European Union do not depend on country-level political debates, but on some deeper mechanism. Therefore, the model we have suggested might capture not only a uniquely British attitude towards immigration and Europe, but rather a specific combination of psychological mechanisms and political conditions that seem to be at play in Europe during present times.

Table 1 Framing of the European Union Issue

	Trust in the European Parliament	European unification	European unification (Germany)
How satisfied with present state of economy	0.30***	0.13***	0.29***
How satisfied with the national government	0.35***	0.13***	0.35***
TV watching	-0.17***	-0.12***	-0.12***
TV watching, news/politics/current affairs	-0.06**	-0.06***	0.04**
How happy are you	0.13***	0.08***	0.19***
Most people can be trusted or you can't be too careful	0.26***	0.14***	0.24***
Allow immigrants from poorer countries in Europe	-0.34***	-0.40***	-0.38***
Allow immigrants from poorer countries outside Europe	-0.31***	-0.35***	-0.36***
Immigration bad or good for country's economy	0.41***	0.40***	0.41***
Immigrants take jobs away in country or create new jobs	0.28***	0.29***	0.29***
Immigrants make country worse or better place to live	0.32***	0.29***	0.28***
How religious are you	0.12***	0.03	0.10***
How close do you feel to the country	-0.11***	-0.01	-0.00
Employment contract unlimited or limited duration	0.01	0.04*	0.01
N	1993		

Our elaborations on European Social Survey data, 2014 wave.

There is a difference between the answers to the two questions on Europe. While correlations between trust in the European Parliament and the state of the economy or trust in the national government are over 30%, they lower to 13% if we consider the unification process instead. This may be because the answers to the former question are highly correlated to answers on trust in the national parliament (coefficient: 0.53; p-value: 0.00). Immigration issues are the only ones that remain highly correlated over both questions. It should be noted that this survey was carried out before the 2015 refugee crisis. Therefore, such correlations cannot be driven by the border control emergency and the sense of panic that derived from that situation. Furthermore, there seems to be no great difference in the correlations between attitudes towards immigrants from Europe and to those from the rest of the world. Answers to these two questions show an 83% correlation. It is therefore not welfare or labour considerations related to European legislation on internal migration or social rights that are responsible for this. Overall, the answers to all questions on immigration show a high level of mutual correlation, supporting the hypothesis that it is not a specific immigration-related economic phenomenon that drives the effect of migration on political preferences over Europe.

4 Econometric analysis

4.1 Econometric strategy

Our econometric strategy extends the methodology used in previous studies, particularly in Barone et al. (2016), by analysing the effect of both the stock and the flow of immigrants on natives' voting behaviour. This allows us to distinguish between 'old' and more recent immigration.

In general, the estimating equation considered in previous literature can be written as:

$$y_{it} = \alpha + \tilde{\beta} x_{it} + \boldsymbol{\delta w_{it}} + \varepsilon_{it} \quad (1)$$

where y_{it} is the share of votes for anti-immigration parties or policies in region *i* at time *t*, x_{it} is the stock of immigrants (i.e. the number of immigrants divided by the native population), $\boldsymbol{w_{it}}$ is a vector of control variables, and ε_{it} is the error term. Although panel data estimations - namely estimations with a within-transformation over differences - are common in previous studies, the underlying relation they estimate is still the effect of the level of x_{it} on the level of y_{it}. If the coefficient is positive, we can state that an increase in the stock of immigrants brings about an increase in the share of votes for anti-immigration positions.

According to our hypothesis, for the same stock of immigrants we should observe a preference for tighter immigration polices where the phenomenon is more recent. Therefore, we need to build an econometric strategy to test for short-run and long-run effects of immigration. We turn this idea into a formula by adding to equation (1) the effect of the recent flow of *x* (in relative or in absolute terms):

$$y_{it} = \alpha + \beta x_{it} + \gamma \frac{\Delta x_{it}}{x_{it-1}} + \boldsymbol{\delta w_{it}} + \varepsilon_{it} \quad (2)$$

$$y_{it} = \alpha + \beta x_{it} + \gamma \Delta x_{it} + \boldsymbol{\delta w_{it}} + \varepsilon_{it} \quad (3)$$

We test whether the coefficient γ is negative and lower than β. Indeed, in our estimation we consider y_{it} to be the share of votes for "Remain" over "Leave", and thus the coefficient must be read with the opposite sign.

The equation (3) can also be written as:

$$y_{it} = \alpha + (\beta+\gamma)x_{it} - \gamma x_{i,t-1} + \boldsymbol{\delta w_{it}} + \varepsilon_{it} \quad (4)$$

If this model depicts the true dynamic of immigration and votes, equation (1) results to be biased. Indeed, in the case of OLS, the mean of the estimated coefficient of the current stock of immigrants is $[\beta + \gamma(1 - \rho_{\Delta x})]$, where $\rho_{\Delta x}$ is the time autocorrelation of immigration flows. In other words, the estimation of equation (1) gives a coeffcient which depends on a combination of two different effects, that of the stock and that of the flow. If the two effects have opposite sign, the bias may also reverse the sign of the estimated coefficient.

An alternative way to test for the negative short-run effect is to leave aside the stock of immigration and to consider a Finite Distributed Lag equation of the flows:

$$y_{it} = \alpha + \gamma_0 \Delta x_{it} + \gamma_1 \Delta x_{it-1} + \gamma_2 \Delta x_{it-2} + \cdots + \gamma_L \Delta x_{iL} + \boldsymbol{\delta w_{it}} + \varepsilon_{it} \quad (5)$$

As in a standard case of a FDL equation, we impose a structure to the coefficients which is consistent with our underlying theoretical hypothesis, i.e. the distinction between the short-run and the long-run:

$$\gamma_0 = \lambda + \sigma \; ; \; \gamma_1 = \lambda + \frac{1}{2}\sigma \; ; \; \gamma_2 = \lambda + \frac{1}{3}\sigma \; ; \ldots \; ; \; \gamma_L = \lambda + \frac{1}{(1+L)}\sigma \quad (6)$$

where l is the lag, λ corresponds to the long-run effect (cf. β in equation 3), while σ is the short-run effect (cf. γ in equation 3) - which is decreasing with the number of lags. We can compute the following auxiliary variables:

$$\tilde{x}_{i1} = \Delta x_{it} + \Delta x_{it-1} + \Delta x_{it-2} + \cdots + \Delta x_{iL}$$

$$\tilde{x}_{i2} = \Delta x_{it} + \frac{1}{2}\Delta x_{it-1} + \frac{1}{3}\Delta x_{it-2} + \cdots + \frac{1}{1+L}\Delta x_{iL}$$

and we can write equation (4) as:

$$y_{it} = \alpha + \lambda \tilde{x}_{i1} + \sigma \tilde{x}_{i2} + \boldsymbol{\delta w_{it}} + \varepsilon_{it} \quad (7)$$

Equation (7) justifies the exclusion of the stock of *x* from the regression model. We will estimate the model in (7) as a further robustness analysis.

The vector of control variables ***w*** includes many possible determinants of the Brexit vote, recalled in the literature previously reviewed. Our analysis is at NUTS3 level, thus, in addition to the regional (NUTS2) fixed effects, we also introduced some local-unit specific controls: controls for the economic situation, such as per-capita income and unemployment; a variable capturing the effect of the urban feature, which embodies the effect of London and similar urban contexts; the socio-demographic structure represented by the share of the population aged over 65 and the share of the population with a higher level of education. An important body of previous literature (Card and Di Nardo, 2000; Borjas, 2006; Peri and Sparber, 2011) argues that cross-regional analyses are invalidated by the fact that natives decide to relocate in response to immigration flows. In our case, the effect of a negative sentiment relating to immigration may have pushed natives to migrate internally, thus reducing the number of people voting "Leave" in the areas with a high concentration of immigrants. There is very scant evidence of the so-called *skating rink model*, according to which "each new immigrant knocks a native off the ice". However, we consider net internal

migration flows in our empirical strategy to control for such potential bias. In particular, we distinguish between internal migrations of natives and foreign-born citizens, and we regress the net flows of natives on the flows of immigrants. Then, we use the fitted values, i.e. the relocation decisions of natives due only to immigration, as a control. Finally, we also consider the results of the 1975 UK referendum on the European Union. In this way, we further control, at the 1975 county council level, that the effect of immigration is not endogenously related to past historical attitudes towards Europe.

The analysis concerns England and Wales and it is performed at the Local Administrative Unit Level (LAU1) for a total of 345 territorial units. From the total 348 territorial units we have excluded the LAU of the City of London (which is a small subset of what is commonly considered as London's financial district) since, curiously, no correspondent data on immigration is available. We also exclude the Isles of Scilly and the Isle of Wight, for which income estimates are missing.

For recent immigration flows we consider the relative and absolute variations in the stock of immigrants for the period 2012/2015. This is a period not characterised by major political changes and we purposely avoided the years of the economic crisis.

The source for electoral data is the UK Electoral Commission while the other data is derived from the Office for National Statistics. Immigration, Income and Unemployment data are model-based estimates. Unemployment is the estimated rate at March 2016 by the Regional Labour Market Statistics office of the ONS. The other control variables are the latest available estimates at LAU level (2011) by the Ness (Neighbourhood Statistics), except for net internal migration flows data, which derives from the Internal Migration Dataset and refers to 2015. The dummy for the Cosmopolitan Areas concerns 50 local authorities which, in the classification for the 2011 Census, were included by the ONS in the three categories of London Cosmopolitan Central, London Cosmopolitan Suburbia and Business and Education Centres.

4.2 Identification strategy

Comparisons between areas with different concentrations of immigrants are always problematic, as immigration flows can be endogenous to the phenomenon under analysis. Two issues in the previous body of the literature provide concerns with regard to endogeneity. Firstly, immigrants could avoid areas with anti-immigrant sentiments. The implication would be an upward bias in the effect of immigration on political outcomes. In areas with more tolerant attitudes the stock of immigrants would be higher than the expected stock predicted purely by push factors, which would in turn lead to an underestimation of the positive effect of immigration on votes for anti-immigrant agendas. Secondly, if there are underlying factors in an area that drive both sorting decisions and political preferences, there would be some spurious correlation between the effect of these factors and the effect of immigration. For example, Halla et al. (2017) suggest that an increase in votes for right-wing parties could be the result of a shift to greater *pro-business* attitudes. If these attitudes in turn determine a better economic performance in that area compared to other areas, it would create a pull factor for sorting decisions by immigrants. More generally, structural changes in the economy create the conditions for both a political shift in preferences and the emergence of a pull factor for immigration. This correlation could determine both an upward and a downward bias on the effect of immigration on political outcomes. The direction of the bias would depend on the relation between this underlying factor and political preferences.

The sorting problem can be overcome by using an instrumental variable approach. An important body of literature argues that immigrants choose where to locate according to individual networks as well as job opportunities (e.g. Beine et al. 2011; Mayda, 2010). In other words, the location choices of people who are moving for economic reasons are driven by utility maximization strategies, which include the sharing of information to reduce the costs of migration, as well as spending time with people that speak the same language and share the same culture. Then, we exploit the tendency of migrants to move to areas where people from the same country already live (Bartel, 1989) and we predict the actual distribution of the foreign population by observing the past one. Therefore, we make

use of the instrument suggested by Altonji and Card (1991), as slightly modified by Cortés and Pan (2014) and Barone et al. (2016):

$$Imm_{it} = \sum_n \frac{\lambda_{in}^{t-l} Imm_{nt,-i}}{Pop_i^t}$$

where Imm_{it} is the predicted share of current immigrants in region *i*. It is equal to the number of immigrants coming from group *n* at time *t* at country level, net of contribution of region *i* to the total, apportioned to the fraction of people coming from the same country and living in region *i* at time $t - l$; all aggregated to the main foreign nationalities present in UK.

This instrument is exogenous at one condition. The time $t - l$ chosen must be such that unobserved variables that determine voting today are not correlated with the determinants of immigration in that year. In other words, the historical sorting decisions of immigrants at that time need to be exogenous to current political preferences.

To validate this condition, we proceed, in line with previous studies, to the choice of a year $t - l$ preceding a major change in political attitudes relating to the issue of immigration. We consider three aspects: major political changes such as the emergence of new parties; substantial increases in migration flows; and changes in the role of immigration in the political debate. Taking all these aspects into consideration, for the case of the UK we chose 1981 and 1991, with the latter year being used only when we needed two instruments in the same estimation.

The year 1991 precedes the Labour governments of the 1990s. In the case of 1981, we further expand our time horizon right back to the beginning of the Thatcher years. In 1991, extreme right-wing parties received well below 1% of electoral preferences, whereas now they receive over 15%. Ukip, a nationalist right-wing party that was at the forefront of the Brexit campaign with an anti-immigration agenda, was founded only in 1993. Moreover,

it started as a Eurosceptic party and only later in the 2000s proposed a policy of reducing immigration. In 1991 the three major parties (Conservative, Labour and the Liberal Democrats) received more than 95% of the vote, while in recent elections their share has been less than 70%.

As to migration trends, during the entire 1970s and 1980s migration flows were relatively low. In 1981, the net total of migration was negative. More than 100,000 British people left the UK that year, while only 24,000 immigrants arrived. The percentage of immigrants in England and Wales (the parts of the UK considered in the analysis) increased from 5% to 6% during those decades.

Multicultural policies proposed by the Labour party in the early 1990s are usually considered to have helped the party to affirm itself at the national level. The loose immigration policies adopted during the Blair years produced a growing consensus in favour of the Labour party. These reforms produced a huge increase in immigration flows after 1997. The percentage of immigrants in the total population increased from just over 6% to about 13%. From the year 2004 onwards, more than 200,000 immigrants settled in the UK per year. The existence of a pro-immigration political climate in the early 1990s is also confirmed by the UK's signature of the Amsterdam Treaty in 1997 and its position in favour of the enlargement of the European Union to Central and Eastern European countries.

An example of this change in the role immigration plays in political debate is a straight comparison between the slogans used by Prime Ministers of the UK in the mid-1990s and today. Blair said that "a simple way to take measure of a country is to look at how many want in and how many want out", whereas now May argues that "the aim is to create here in Britain a really hostile environment for illegal migration." This issue is not the result of a difference between the Conservative and Labour parties. John Major, the Conservative Prime Minister who preceded Tony Blair (1990-1997), also expressed opinions in favour of immigration during his time in office: "There was a different social value placed on immigration (...) I saw immigration at very close quarters in the 1950s. They shared my house. They were my neighbours. I played with them as boys. I did not see people who had

come here just to benefit from our social system. I saw people with guts and the drive to travel halfway across the world in many cases to better themselves and their families. And I think that is a very conservative instinct." Furthermore, during the Brexit referendum Major supported Remain and accused Leave supporters from his own party of using arguments more akin to those of Ukip, rather than traditional Conservative arguments.

We can therefore conclude that the role of immigration in political debate has changed in line with major changes in electoral results from the nineties onwards, and with changes in the size of migration flows. These elements provide support to the hypothesis that the sorting of immigrants in 1981 and 1991 was not correlated to actual political preferences. This justifies the choices of 1981 and 1991 as base years for the instrument.

The figures for immigrant stocks in Local Authority Units in 1981 and in 1991 are taken from the corresponding censuses. We eliminated Harrogate from the units observed because it is missing from both censuses. These censuses divide immigrants into seven subgroups (Old Commonwealth, New Commonwealth, Pakistani, Irish, European Community, other Europeans and rest of the world).

This instrument is used in different ways to correct for the endogenous nature of equations (1)-(4). Firstly, in order to compare with previous studies, we regress equation (1) by using the 1981 yearly base and instrumenting the stock of immigrants. Secondly, we run the same IV estimation on equation (2), but without instrumenting the flow of immigrants. This specification derives from the assumption that the endogenous components are time invariant, and thus the rate of growth is exogenous to the model. Thirdly, to avoid our assumptions being too restrictive, we instrument the stock of immigrants both at time t (1991) and at time $t-1$ (1981). Since equation (4) takes the form of a Finite Distributed Lag equation, although with only one lag, to overcome the estimation problems typical of this functional form we also run a three-stage regression in order to avoid possible autocorrelation problems.

To overcome the limitations posed by the cross-sectional nature of the Brexit case, in the robustness section we applied the same procedure to a three-waves panel data on Ukip. Additionally, to overcome the limitations of aggregated data we run an ordered probit

estimation on individual data. These data are taken from the British Election Study and reflect personal attitudes to immigration and the vote for Ukip and the Brexit Referendum.

4.3 Results

Tables 2 and 3 show the results of the OLS and IV estimations. The first column of both tables corresponds to the standard equation (1). The stock of immigrants is not significant in the OLS estimations, but it becomes significant in all specifications of the IV model. However, contrary to many previous studies (Otto and Steinhardt, 2014; Barone et al., 2016; Dustmann et al., 2016; Steinmayr, 2016; Halla et al., 2017), we do not find that the stock of immigrants has a negative effect on the vote for "Remain": the coefficient is positive in both cases.

Recent immigration flows always have a significant and negative effect, whichever model specification and identification strategy we choose. This last result provides evidence in favour of our hypothesis of a short-run effect: the coefficient of recent flows is negative and lower than the coefficient of the stock (which is actually positive).

Table 2: OLS regressions

	Remain	Remain	Remain	Remain	Remain
Stock of immigrants	0.0720		0.170	0.0917	-0.413*
	(0.108)		(0.130)	(0.114)	(0.205)
Immigration flows 2012/2015		-0.481**	-0.583***		
		(0.175)	(0.116)		
Growth rate of immigration 2012/2015				-1.520**	
				(0.549)	
Stock of immigrants 2012					0.583***
					(0.116)
Unemployment	No	No	No	No	No
Income	Yes	Yes	Yes	Yes	Yes
Cosmopolitan areas	Yes	Yes	Yes	Yes	Yes
Higher Education	No	No	No	No	No
Over 65	No	No	No	No	No
Net internal migration flows	No	No	No	No	No
Vote at the 1975 referendum	No	No	No	No	No
Constant	12.65	14.56	13.04	14.41	13.04
	(9.515)	(10.00)	(9.530)	(9.447)	(9.530)
Observations	345	345	345	343	345
R^2	0.699	0.709	0.714	0.703	0.714

Errors clustered at regional level in parentheses.

Regional dummies are included (but not reported). We excluded 3 observations (Isle of Wright, Isles of Scilly, City of London), because of missing data.

Cosmopolitan areas include London and Business and Education centres.

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

Table 3: IV regressions

	2SLS only share	2SLS only share	2SLS	3SLS
	Remain	Remain	Remain	Remain
Stock of immigrants	0.497***	0.488***	-2.751***	-2.751**
	(0.136)	(0.156)	(0.606)	(1.138)
Growth rate of immigration 2012/2015		-2.018***		
		(0.577)		
Stock of immigrants 2012			3.251***	3.251***
			(0.734)	(1.166)
Unemployment	Yes	Yes	No	No
Income	Yes	Yes	Yes	Yes
Cosmopolitan areas	Yes	Yes	Yes	Yes
Higher Education	No	No	No	No
Over 65	No	No	No	No
Net internal migration flows	No	No	No	No
Vote at the 1975 referendum	No	No	No	No
Constant	8.340	11.09	16.46	16.46
	(7.265)	(7.865)	(7.268)	(11.04)
F statistic	16.61	15.80	14.82	
Observations	344	342	344	344
R^2	0.666	0.676	0.396	0.396

Errors clustered at regional level in parentheses.
Regional dummies are included (but not reported). We excluded 3 observations (Isle of Wright, Isles of Scilly, City of London), because of missing data. Cosmopolitan areas include London and Business and Education centres.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

It is worth noting that columns 3 and 5 of the OLS estimations produce the same results, in spite of the fact that they correspond to different formulations of the same model (see eq. 3 and 4): the coefficient of the flows in column 3 is equal to the opposite coefficient of the lagged stock in column 3, while the coefficient of the stock in column 3 is equal to the sum of the two coefficients in column 5.

Table 4 shows the results of the OLS estimations of the Finite Distributed Lag model in equation (7). Referring to the original formulation in equation (5), we consider five variables, each with a three-year lag. Although we do not have sufficient instruments to run an IV estimation, this formulation allows for a less restrictive short-run assumption, since

we do not implicitly assume that the short-run effect lasts exactly three years and then suddenly disappears. In this case, the results also support our hypothesis: the coefficients of immigration flows increase on the lag. Indeed, considering equation (6), the coefficients of the variations are:

$$\gamma_0 = -0{,}412;\ \gamma_1 = 0{,}167{,}5\ ;\ \gamma_2 = 0{,}361\ ;\ \gamma_3 = 0{,}457\ ;\gamma_4 = 0{,}515$$

and then they turn form positive to negative when l=0.551, i.e. after approximately five and a half years.

In all the specifications, the control variables 'income' and 'urban' are always significant and positive: wealthier and/or more cosmopolitan areas returned a higher percentage of votes for "Remain". Unemployment is not significant. Contrary to what has emerged from descriptive analysis on the impact of age,[8] once other effects are controlled for (especially income), age structure is not a significant feature. Controlling for natives' internal migration and the 1975 Referendum also finds them to be not significant.

[8]see for example http://www.independent.co.uk/news/uk/politics/brexit-why-did-old-people-vote-leave-young-voters-remain-eu-referendum-a7103996.html

Table 4: Distributed lag model

	Remain
Long-run effect	0.747***
	(0.137)
Short-run effect	-1.159***
	(0.232)
Unemployment	No
Income	Yes
Cosmopolitan areas	Yes
Higher Education	No
Over 65	No
Net internal migration flows	No
Vote at the 1975 referendum	No
Constant	13.07
	(9.550)
Observations	345
R^2	0.713

Errors clustered at regional level in parentheses.
Regional dummies are included (but not reported).
We excluded 3 observations (Isle of Wright,
Isles of Scilly, City of London), because of missing data.
Cosmopolitan areas include London and Business and Education centres.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

4.4 Robustness

We carried out two robustness checks. As ours is a cross-sectional analysis, robustness checks were needed to provide some evidence that this dynamic process does not result from the effects of unobserved variables on our data.

Firstly, we checked whether our results also held in other elections, namely with regard to votes for Ukip in the European elections. In particular, we exploited the panel nature of the data on Ukip to provide a fixed effect estimation, in line with Barone et al. (2016). Our second control used individual-level data from the British Elections Study to check whether

this process was at work by looking directly at personal attitudes towards immigration and declarations of vote for Ukip and in the 2016 EU Referendum.

4.4.1 Ukip votes

Immigration must have been a relevant factor in people's support for Ukip at previous European Parliament elections, just as it was in the Brexit vote. This is true for two reasons: 1) in the 2016 Referendum, "Leave" received 52% of the vote; in 2014 Ukip received 26,8% of votes cast, in 2009 16%, and in 2004 16.1%.It thus follows that what is true for the Brexit vote should hold even more true when it comes to support for Ukip; 2) Ukip is a party with a clear anti-immigration stance. The increase in their share of the vote over time can be explained by the way in which they used the immigration issue to call the UK's continued membership of the European Union into question. If our control does not confirm our previous results, then our idea of considering "Leave" votes as anti-immigration should be dismissed.

We replicated our main model and provided an additional fixed effect panel model and then an IV panel fixed effect model. Contrary to our previous analysis on Brexit, this data permits us to use an econometric strategy that controls for unobserved fixed effects. Of course, we have to look at the sign of the coefficients in the opposite way, as more votes for Ukip here correspond to a positive coefficient. We should thus find more evidence in support of our hypothesis, with recent immigrant flows having a more positive effect than the immigrant stock.

Table 5: Panel Estimations on Ukip

	OLS	OLS	FE	FE-2SLS	FE-3SLS
	Ukip	Ukip	Ukip	Ukip	Ukip
Stock of immigrants	-0.152***	-0.200***	-0.708***	-4.266***	-1.605
	(0.0317)	(0.0344)	(0.119)	(0.926)	(2.052)
Immigration flows		0.246***	0.344***	2.048***	
		(0.0705)	(0.0801)	(0.459)	
Lagged stock of immigrants					-3.758***
					(1.159)
Unemployment	0.663	0.710	2.143*	2.355**	2.040**
	(0.732)	(0.763)	(1.159)	(0.993)	(0.999)
High Education	3.199	2.998			
	(2.026)	(2.023)			
Income	0.00456**	0.00562**			
	(0.00181)	(0.00185)			
Over 65	0.294***	0.258***			
	(0.0753)	(0.0533)			
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Unit fixed effects			Yes	Yes	Yes
Constant	4.997**	5.316**	19.48***	47.21***	33.68***
	(2.079)	(1.829)	(0.855)	(7.222)	(8.419)
Observations	1031	1031	1031	1028	1028
R^2	0.641	0.647	0.803		0.017

Errors clustered at regional level in parentheses.
We excluded 3 observations (Isle of Wright, Isles of Scilly, City of London), because of missing data.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Our robustness checks conclusively support our previous results. The flow of immigrants has a positive effect on votes for Ukip, while the immigrant stock has a negative effect. Fixed effects strengthen the coefficients, which are further increased in magnitude by the use of an instrumental variable strategy. This is in line with Barone et al. (2016). The stock has a bias in the opposite direction, but the bias on flows is consistent with the theoretical underpinnings of their results.

Given that our cross-sectional analysis on Brexit may have raised concerns regarding the dependence of our results on unobserved fixed effects, it is reassuring to see these results confirm their validity. It should be noted that this provides evidence that this dynamic process is not time-dependent, as here we also consider the 2009 and 2004 elections, which are quite far removed from 2015 in terms of time. In terms of results, they tell the same story as our analysis of the Brexit vote.

4.4.2 Data at the individual level

In spite of our use of an instrumental variable approach, it is still be possible that our results are produced by some spurious correlation with political preferences at a regional level. There may be additional underlying regional factors that explain both immigration flows and political preferences, which were not taken care of by our instrumental variable approach. Therefore, it is useful to consider for robustness some finer data at the individual level that directly tests personal attitudes to immigration and people's reported voting intentions with regard to Ukip and Brexit.

We merge the 7th wave of the British Election Study, conducted by YouGov in 2015, with ONS statistics on the distribution of immigrants and exclude Scotland, Northern Ireland and all immigrants from the dataset. The flows we consider is the difference in the stock of immigrants between 2011 and 2014. The model is an ordered probit model on the questions "Do immigrants make the country a better or worse place to live", "If there were a UK General Election tomorrow, which party would you vote for?", and "If there were a referendum on Britain's membership of the European Union, how do you think you would vote?", using the same variables of interest and controls as our baseline model.

Table 6: OLS on Individual Data

	Immigration good or bad	Ukip	Remain
Stock of immigrants	0.00498*	0.000840	0.00663*
	(0.00292)	(0.00378)	(0.00365)
Immigration flows	-0.0161***	0.0128**	-0.0160**
	(0.00489)	(0.00569)	(0.00668)
Unemployment	No	No	Yes
Income	No	No	No
Cosmopolitan areas	No	No	No
Higher Education	Yes	Yes	Yes
Over 65	Yes	Yes	Yes
Gender	Yes	No	No
N	6983	6983	6983

Errors clustered at LAU level in parentheses.
We exclude all migrants from the dataset.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

This check gives relevant support to our main results, because it tests the same short-run effect with variables at the individual level. We do not find a significant effect produced by the stock of immigrants (all p-values are above 5%), which is consistent with the weak significance it had in our previous analysis and with contact theories on intergroup relations. The effect of migrant inflows in recent times is significant and negative. Therefore, even when controlling for variables such as unemployment, income and demographics at the individual level, the effect of immigration is still significant and temporary.

5. Conclusions

Arguments relating to immigration, tinged with nationalist tones, play a key role in current political debate, particularly since the onset of the economic crisis. Nigel Farage, David Cameron, Marine Le Pen, Matteo Salvini and others have succeeded, not without the help of the media, in framing the question of Europe as a question of immigration. At the same time, over the last twenty years there has been an unprecedented rise in immigration flows right across Europe. Both issues determine the need to further investigate the political impact of migration. In particular, we wanted to analyse the dynamic aspects of the impact of migrant inflows on votes, testing for a negative short-run effect. In considering this issue, we have taken into account the potential role of prejudices - stereotypes born out of a lack of information and destined to fade over time, as people become more familiar with the new immigrant population. We have also mentioned how the integration of immigrants may take time because welfare systems and job markets are slow to adjust to the increased population. Given these processes, it is relevant to assess whether the effect of immigration on voting depends merely on the stock of immigrants *per se*, or whether it is influenced by the time-path of the immigration process.

Our results show that the time-path is indeed the key. The effect of recent immigration flows is more negative than the effect of the stock of immigrants and of the lagged flows, thereby confirming a short-run effect. In general, while there are correlations between stocks and flows, estimates based on the stock alone may be biased. Trying to understand the effects of immigration on the popular vote by simply analysing the stock of immigrants *per se* can be deceptive. In the case of Brexit, where stock and flows are only weakly correlated, the effects on the electorate of the stock of immigrants *per se* would have returned a positive effect on votes, although one that was barely significant. Taking immigrant flows into account, however, enables us to find evidence that, in line with reports by research companies and evidence from the BES, immigration was indeed a key factor in the result of the Brexit referendum. Excluding income and the case of cosmopolitan areas, immigration seems to have been the referendum's main determining factor.

This paper also contributes to the emerging body of literature on the political outcomes of immigration by proposing an explanation as to why there are differences between the impact of immigration in large cities and in small towns. In fact, migration to large cities goes back further than migration to small towns, with the result that the short-run effect that we have found may have long ago been overcome. Therefore, we suggest that by considering the time process of immigration it is possible to investigate this issue without having to distinguish between areas by density of population.

In conclusion, we wish to point out that our analysis is necessarily only a starting point. We interpreted the evidence on Brexit as supportive of our hypothesis, but plenty of work is still required to analyse the factors that determine immigration's effect on the vote. The elements underpinning the short-run and long-run effects and the relationship between the two are still to be investigated. For example, which aspect is more relevant: prejudice or material concerns? As for the former, there may be attitudes rooted in culture that may derive from historical events, such as decolonisation or racism. However, it could also be that failures in integration policies are responsible for these effects. Moreover, are we fully aware of the role played by the media and by political narratives? Given the current relevance of "post-factual" phenomena, there is a need to investigate this issue. It could be that there is no correlation between watching television and personal attitudes towards migration; alternatively, it could be that the media and political narratives influence people's perceptions or that, more subtly, they validate previously-held beliefs, facilitating their propagation.

In the 1930s, alternative facts and propaganda in Europe were already fuelling prejudices against ethnic or religious minorities. Back then, the same arguments over minorities were being propagated as over immigrants now. There would appear to be nothing new under the sun! However, given that the current popularity of anti-immigration agendas corresponds to increased immigration flows in recent years, there is need to better understand this relation. Our contribution to the subject is the conclusion that the effect of immigration on voting patterns depends on the specific time-path of immigration.

References

Abbink, K., Brandts, J., Herrmann, B. Orzen, H., 2010. Intergroup conflict and intra-group punishment in an experimental contest game. The American Economic Review 100(1), 420–447.

Ahmed, A. M. 2007. Group identity, social distance and intergroup bias. Journal of Economic Psychology 28(3), 324–337.

Allport, G. W., 1954. The nature of prejudice. Basic books.

Altonji, J. G. Card, D., 1991. The Effects of Immigration on the Labor Market Outcomes of Less-skilled Natives. In J. M. Abowd and R. B. Freeman (Eds.), Immigration, Trade and the Labor Market, pp. 201–234. University of Chicago Press.

Arrow, K. J. 1971. The theory of discrimination. Working Paper 403, Princeton University, Department of Economics, Industrial Relations Section.

Barone, G., D'Ignazio, A., De Blasio, G., Naticchioni, P., 2016. Mr. Rossi, Mr. Hu and politics. The role of immigration in shaping natives' voting behavior. Journal of Public Economics 136, 1 – 13.

Bartel, A. P. 1989. Where Do the New U.S. Immigrants Live? Journal of Labor Economics 7(4), 371–391.

Beine, M., Docquier, F., Özden, Ç., 2011. Diasporas. Journal of Development Economics 95(1), 30–41.

Ben-Ner, A., McCall, B.P., Stephane, M., Wang, H., 2009. Identity and in-group/out-group differentiation in work and giving behaviors: Exper- imental evidence. Journal of Economic Behavior & Organization 72(1), 153–170.

Borjas, G. J. 2006. Native Internal Migration and the Labor Market Impact of Immigration. The Journal of Human Resources 41(2), 222–258.

Brewer, M. B. 2007. The importance of being we: human nature and intergroup relations. American Psychologist 62(8), 728.

Campbell, D. T. 1965. Ethnocentric and other altruistic motives. In Ne- braska symposium on motivation, Volume 13, pp. 283–311.

Card, D., 2001. Immigrant inflows, native outflows, and the local market impacts of higher immigration. J. Labor Econ. 19, 22–64.

Card D., Dustmann C., Preston I., 2005. Understanding Attitudes to Immigration: The Migration and Minority Module of the First European Social Survey. CDP Discussion Paper Series 03/05, Centre for Research and Analysis of Migration, University of London.

Card, D. Di Nardo, J. 2000. Do Immigrant Inflows Lead to Native Outflows? The American Economic Review 90(2), 360–367.

Card, D., Dustmann,C. , Preston I., 2012. Immigration, wages, and compositional amenities. Journal of the European Economic Association 10(1), 78–119.

Castillo, M. R., Petrie, R., 2010. Discrimination in the lab: Does information trump appearance? Games and Economic Behavior 68(1), 50–59.

Colantone, I., and Stanig, P., 2016 Global Competition and Brexit . BAFFI CAREFIN Centre Research Paper No. 2016-44.

Cortés, P., Pan, J., 2014. Foreign nurse importation and the supply of native nurses. Journal of Health Economics 37(C), 164–180.

Dustmann, C., Vasiljeva, K., Damm, A. P., 2016. Refugee Migration and Electoral Outcomes. CReAM DP 19, 16.

Facchini, G., Mayda, A.M, 2009. Does the welfare state affect individual attitudes toward immigrants? evidence across countries. The Review of Economics and Statistics 91(2), 295–314.

Grigorieff, A.Roth, C., Ubfal, D, 2016. Does Information Change Attitudes Towards Immigrants? Representative Evidence from Survey Experiments. Available at SSRN: https://ssrn.com/abstract=2768187

Halla, M., A. F. Wagner, F., Zweimüller, J., 2017. Immigration and voting for the far right, Journal of the European Economic Association, forthcoming.

Ipsos Mori, 2016. Political Monitor, June.

Mayda, A. M. 2006. Who is against immigration? a cross-country investigation of individual attitudes toward immigrants. The review of Economics and Statistics 88(3), 510–530.

Mayda, A. M. 2010. International migration: A panel data analysis of the determinants of bilateral flows. Journal of Population Economics 23(4), 1249–1274.

Otto, A. H., Steinhardt, M.F., 2014. Immigration and election out- comes—evidence from city districts in hamburg. Regional Science and Urban Economics 45, 67–79.

Peri, G., Sparber, C. 2011. Assessign Inherent Model Bias: An Ap- plication to Native Displacement in Response to Immigration. Journal of Urban Economics 69, 82–91.

Sekeris, P., Vasilakis,C., 2016. The mediterranean refugees crisis and extreme right parties: Evidence from greece. MPRA Working Paper, n.72222.

Scheve, K. F., Slaughter, Matthew J., 2001. Labor Market Competition And Individual Preferences Over Immigration Policy, *The Review of Economics and Statistics*, 83, issue 1, p. 133-145.

Sherif, M. Harvey, O. J., Jack White, B., 1961. Intergroup conflict and cooperation: The Robbers Cave experiment, Volume 10. University Book Exchange Norman, OK.

Steinmayr, A., 2016. Exposure to Refugees and Voting for the Far-Right: (Unexpected) Results from Austria. IZA Discussion Papers 9790, Institute for the Study of Labor (IZA).

Tajfel, H., Turner, J.C., 1979. An integrative theory of intergroup conflict. The social psychology of intergroup relations 33(47), 74.

Yamagishi, T., N. Mifune, 2009. Social exchange and solidarity: in- group love or out-group hate? Evolution and Human Behavior 30(4), 229–237.

Recent papers in the SPRU Working Paper Series:

October

School Infrastructure Spending and Educational Outcomes in Northern Italy. Alessandro Belmonte, Vincenzo Bove, Giovanna D'Inverno and Marco Modica

September

Do Policy Mix Characteristics Matter for Low-Carbon Innovation? A Survey-Based Exploration for Renewable Power Generation Technologies in Germany. Karoline S. Rogge and Joachim Schleich

Lost in Transition? Drivers and Barriers in the Eco-innovation Road to the Circular Economy. Ana de Jesus and Sandro Mendonça

Towards a Typology of Intermediaries in Transitions: A Systematic Review. Paula Kivimaa, Wouter Boon, Sampsa Hyysalo and Laurens Klerkx

August

Innovation, Inequality and the Skill Premium. Riccardo Leoncini

User-Intermediaries and the Local Embedding of Low Carbon Technologies. Jake Barnes

July

Who Gains from High-Tech Growth? High-Technology Multipliers, Employment and Wages in Britain. Neil Lee and Stephen Clarke

June

Measures, Drivers and Effects of Green Employment: Evidence from US Local Labor Markets, 2006-2014. Francesco Vona, Giovanni Marin and Davide Consoli

Structural Changes and Growth Regimes. Tommaso Ciarli, André Lorentz, Marco Valente and Maria Savona

Explaining Sociotechnical Transitions: A Critical Realist Perspective. Steve Sorrell

Social Innovation, Democracy and Makerspaces. Adrian Smith

Suggested citation:
Eugenio Levi, Rama Dasi Mariani and Fabrizio Patriarca (2017). *Hate at First Sight? Dynamic Aspects of the Electoral Impact of Migrations: The Case of the UK and Brexit.* SPRU Working Paper Series (SWPS), 2017-21: 1-36. ISSN 2057-6668. Available at: www.sussex.ac.uk/spru/swps2017-21

SPRU – Science Policy Research Unit
University of Sussex
Falmer, Brighton, BN1 9SL,United Kingdom
SWPS Website: www.sussex.ac.uk/spru/research/swps
SPRU Website: www.sussex.ac.uk/spru
SPRU Twitter: @SPRU