Perceived sentiments towards foreigners: A longitudinal and cross-national approach to immigrant group size and populist radical right voting

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Abstract

This research aims at disentangling the contradictory evidence about the relationship between immigrant group size and populist radical right (PRR) voting. This is one of the first studies to adopt (1) a longitudinal approach to the two phenomena instead of a cross-sectional approach, (2) a cross-national approach while controlling for economic circumstances in a country, (3) a direct comparison of the three theories about the relationship between immigrant group size, and PRR voting and (4) the role of perceived sentiments towards foreigners as key variable. The latter is conducted by constructing an index based on six questions in the European Social Survey about immigration. The results indicate that the hypothesis of fear of small numbers describes the relationship between immigrant group size and PRR voting best over all countries between 2002 and 2018. The relationship is moderated by perceived sentiments towards foreigners, as the relationship between immigrant group size and PRR voting depends on the level of perceived sentiments towards foreigners. Moreover, dynamics within the studied countries illustrate that perceived sentiments towards foreigners predict a part of the PRR voting dynamics and the level of this perception affects the relationship between immigrant group size and PRR voting. This study leaves the question open how different types of immigrant groups vary in their dynamic relationship between PRR voting and immigrant group size.

Keywords

Migration – Populist radical right parties – Perceived sentiments – Fear of small numbers – Minority – Majority - Europe

A word of thanks

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Abbreviations (in order of appearance)

EU	European Union
PRR	Populist radical right
UNCHR	United Nations High Commissioner for Refugees
ESS	European Social Survey
EDPR	European Data Protection Regulation
DPIA	Data Protection Impact Assessment

1 Introduction

1.1 Background

The current political debates in European countries are characterized by discussions regarding migration and are consequently affecting political decisions (Berning & Schlueter, 2016). In 2016, countries in the European Union, together with Norway and Switzerland, received around 1.3 million applications for international protection (European Parliament, 2019). Although this number of applications declined in the following years, with 634.700 applications left in 2019, the political debate in European countries still involves migration-related questions. This is evident noticing specific political parties and changes in the political spectrum. An average share from 8% in the 1990s to 12.5% in national elections in more recent years, alongside entering national governments, indicates that populist radical right (PRR) parties and their anti-immigrant ideas are affecting politics more than before (Rydgren, 2007; Mudde, 2013; Akkerman et al., 2016; Essletzbichler et al., 2018). Furthermore, the Eurobarometer survey from June 2019 reveals that immigration was the fifth largest issue that European citizens had in mind when voting for the EU elections in May 2019 (European Parliament, 2019). Ipsos Italy illustrates that the number of respondents indicating immigration as an issue facing the country increased from 4% in 2013 to 33% in 2017 (Ipsos Italy, 2017). Taken all together, the relationship between immigration issues and political aspects, such as voting, seems subject to changes over time and is already interesting enough for further examination from a non-academic perspective.

The issue of growing PRR parties has even more exacerbated in light of the recent 'migration crisis'. The sudden increase in refugees from countries like Afghanistan and Syria around 2015 and 2016 led to the framing of the so-called 'migration crisis', where especially the media were responsible for creating a feeling of threat to Europe (Berry et al., 2016). In the first half year of 2015, United Nations High Commissioner for Refugees (UNCHR) counted 137,000 refugees and migrants who tried to enter the EU (Berry et al., 2016). To illustrate, this number was an increase of 83% compared to the same period in 2014. The main reason for this sharp increase is the civil war in Syria and Iraq (Berry et al., 2016). Besides the increase in the number of migrants and refugees, the way of migrating, as people were trying to reach the coast of Greece from Turkey in small boats leading to a significant number of deaths, contributed to the creation of the so-called 'migration crisis' in the media and politics (Crawley & Skleparis, 2018). However, both the number of migrants and the way of migrating do not directly cause a feeling of threat to Europe. This migration crisis inevitably had consequences for European politics and subsequently voting behaviour, as the main theories on PRR parties argue that the perceived threat of non-natives entering a country is one aspect of the ideology of those PRR parties (Mudde, 2007; Akkerman et al., 2016).

Especially in European politics, the distinction between migrants and refugees was postulated in a way that politicians considered a significant part of the migrants as economic migrants 'looking for a better life' rather than refugees fleeing the country for civil war (Crawley & Skleparis, 2018). A discrepancy exists between intra-EU migration, which is perceived positive as it will contribute to vitality and competitiveness of the EU, and migration towards the EU, which is limited because of border control and restrictions (Van Mol & De Valk, 2016). This discrepancy explains why the increase in the inflow of non-EU migrants is considered problematic and subsequently considered and named a 'migration crisis'. The migration crisis can be perceived more negatively considering the economic crisis of 2008, during which the peripheral countries like Greece and Italy were affected the most, leading to more people emigrating from those countries for economic reasons (Castles et al., 2014). For this reason, a sharp increase in the inflow of refugees and migrants can be inevitably considered problematic in countries that are performing economically worse than their EU counterparts and are at the same time suffering from out-migration of their native population.

During turbulent or 'crisis' times, PRR parties can easily receive their vital ingredients for

increased support from these developments. As they are known for their anti-immigrant ideas and scapegoating in times of crisis, an economic crisis, followed by a 'migration crisis' provides these parties with enough empirical evidence and data to argue that immigration leads to significant threats to their countries (Akkerman et al., 2016). Scholars have studied the relationship between PRR voting and immigrant group size before. However, the results of these studies are inconclusive as they provide mixed evidence. Fundamental in this light is the fact that the three main theories on the relationship between immigration group size and PRR voting are not consistent in the direction of the relationship. In general, those theories assume that perceived sentiments towards foreigners play a role in the relationship between immigrant group size and PRR voting. First, group threat theory argues that more immigrants causes more racial prejudices towards immigrants, as competition over resources will exist and therefore support for PRR parties in the form of voting will increase (Quillian, 1995). Second, intergroup contact theory argues that more immigrants will cause more contact opportunities, leading to less racial prejudices towards immigrants and therefore less support in the form of voting for PRR parties will exist (Pettigrew, 1998). Lastly, the fear of small numbers theory states that PRR voting will first increase when immigrant group size is increasing, until a threshold after which immigrant group size is still increasing while PRR voting decreases (Appadurai, 2006). Evidence for this theory is found by Charitopoulou & García-Manglano (2017) in Switzerland, yet only if perceived threat of immigrants by natives is high. Whereas some studies did not claim significant relationships between immigrant group size and PRR voting (Lubbers & Scheepers, 2000; Hjerm, 2009), some claim positive or negative relationships across countries (Knigge, 1998; Golder, 2003) and some claim positive or negative relationships within countries (Coffé et al., 2007; Stein et al., 2000; De Vos & Deurloo, 1999).

1.2 Research objectives and research questions

The aim of this research is to re-examine the group threat theory, intergroup contact theory and fear of small numbers theory by adopting an approach in which immigrant group size, perceived sentiments towards foreigners and PRR voting are examined over time and within countries with the use of a macro-approach to disentangle the mixed evidence. This study contributes to the field of migration studies by adopting a longitudinal research design with the use of data from the European Social Survey (ESS) from 2002 to 2018, as the cross-sectional character of some of the previous studies fails to provide an overview of trends over time. Furthermore, bias towards negative perceived sentiments towards foreigners exists, as most studies use negative statements as 'The presence of immigrants is one of causes of delinquency and violence' (Semyonov et al., 2006). This is the first study to centralize the role of perceived sentiments towards foreigners by conceptualizing and testing an index based on the questions in the ESS aiming at a systematic comparison between countries and over time. The main research question is *'What is the role of perceived sentiments towards foreigners in the relationship between immigrant group size and populist radical right voting between 2002 and 2018 in Europe?*. This research question is assisted by the following questions:

1. To what extent did perceived sentiments towards foreigners, immigrant group size and PRR voting change over time between 2002 and 2018 in Europe and in European countries?
2. What is the role of perceived sentiment towards foreigners in the relationship between immigrant group size and PRR voting within European countries?

The results of this study reveal that the fear of small numbers theory seems to work best at the European level compared to the other two theories. Moreover, the results indicate that the role of perceived sentiments towards foreigners is significant in distinguishing countries in their PRR voting dynamics. Throughout this paper, the words 'immigrants' and 'foreigners' are used interchangeably, as the connotation means more or less the same in the context of this study, although it is realized that there is a difference in the exact meaning of these words.

2 Theoretical framework and literature review

In this part of the study, the theoretical framework and literature review are presented in a combined way. First, the PRR parties are described, and examples of parties are provided in paragraph 2.1. Trends over time are discussed and the PRR parties are put in context by describing their supply and demand in society. Second, the implications of PRR success are discussed in paragraph 2.2, where the last part will elaborate on the implications for individuals and their attitudes. In paragraph 2.3, the focus shifts towards the group threat theory as this theory clarifies mechanisms based on attitudes of ingroup members when confronted with outgroup members. This part will be followed by paragraph 2.4, where the group threat theory is applied to immigration issues. As this paragraph only focuses on negative attitudes, paragraph 2.5 changes the perspective towards positive attitudes by explaining the intergroup contact theory. In paragraph 2.6, a critical reflection on the group threat theory and intergroup contact theory is provided. In an attempt to solve the contradictory between the group threat theory and intergroup contact theory, scholars have come up with the fear of small numbers theory, which will be the main topic of paragraph 2.7. The conceptual framework following from this review will be presented graphically in paragraph 2.8, preceded by the hypotheses.

2.1 Populist radical right parties

Populist radical right (PRR) parties have an ideology that can be described with the terms authoritarianism, nativism, and populism. Authoritarianism is the term referring to the belief that a society should be strictly ordered (Pirro, 2015). This implies that PRR parties feel and take the responsibility for creating this ordered system. Nativism is defined by Mudde (2007) as a combination of nationalism and xenophobia. This entails that countries should be inhabited exclusively by natives of the country and the non-native components of the country such as foreign people and their culture and ideas is something to feel threatened about (Mudde, 2007; Akkerman et al., 2016). To illustrate, in the last years PRR parties considered people from Islamic countries as the main non-native component of the country, as their values do not coincide with Western values such as autonomy and democracy (Swank & Betz, 2003; Akkerman, 2015). Lastly, populism refers to the practical side of this ideology, as politicians are in charge of dividing and keeping society into the 'pure people' and 'corrupt elite' (Pirro, 2015). It must be stated that the definition and classification of a PRR party is still a debate amongst scholars (Mudde, 2007; Muis & Immerzeel, 2017). Whereas labels such as 'extreme right' and 'far right' seem interchangeable, it is essential to keep in mind that those labels do not apply for every PRR party. For example, several academics tend to capture PRR parties in the general slogan 'own people first' (Muis & Immerzeel, 2017). The problem is that even Western and Eastern European countries differ already considering this slogan. Whereas PRR parties in Western European countries tend to be anti-immigration (Abou-Chadi, 2016), PRR parties in Eastern European countries tend to fight against ethnic minorities such as the Roma (Minkenberg, 2017). Although defining and classifying PRR parties stays a topic of debate, Akkerman et al. (2016) conclude that PRR parties could be enfold as a party family, of which authoritarianism, nativism and populism are the main characteristics.

History reveals that PRR parties in Europe are gaining support from voters since approximately 1990 (Rink et al., 2009; Akkerman et al., 2016). Adopting an anti-immigrant framework around that time led to the increased support of voters and made the PRR parties stand out in comparison with their fellow parties in the political spectrum (Akkerman et al., 2016). Amongst the most successful PRR parties of Western Europe are the French National Front (Front National, FN), the Swiss People's Party (Schweizerische Volkspartei, SVP) and the Austrian Freedom Party (Freiheitliche Partei Österreichs, FPÖ). Alongside the increased support for PRR parties, new parties emerged around 2000, like the Dutch Party for Freedom (Partij voor de Vrijheid, PVV), the Finns Party (Perussuomalaiset, PS) and the Alliance for the Future of Austria (Bündnis Zukunft Österreich, BZÖ). Although little attention is offered to PRR parties in Eastern Europe (Minkenberg, 2015; Pytlas, 2016), Pirro (2015) distinguishes

the three most successful PRR parties from Eastern Europe, which include Ataka from Bulgaria, Jobbik from Hungary and SNS from Slovakia. A possible reason for the little attention for PRR parties in Eastern Europe is provided by Muis & Immerzeel (2017), who state that parties like Law and Justice (PiS) from Poland and Fidesz from Hungary tend to stay more diverse in their ideology than the PRR parties in Western Europe. While Inglehart and Norris (2016) conclude that their positions are more radical than some of the Western European PRR parties, their support could possibly be larger as their ideology is more diverse.

The rise of the PRR parties in Europe is further visible from their increased support over time. This increased support is for example noticed in Austria, where the Freedom Party of Austria (FPÖ) had a significant increase in seats in the Austrian parliament in the last years (Bodlos & Plescia, 2018). In addition, the French Front National (FN) nearly won recent elections in France (Essletzbichler et al., 2018). In the Netherlands, the Party for the Freedom (PVV) became the second largest party after the elections of 2017 (Inglehart & Norris, 2016). Lastly, in Switzerland, the Swiss People's Party (SVP/UDC) took 26.6% of the votes in the 2011 elections (Charitopoulou & García-Manglano, 2017). These facts imply that the rise of the PRR parties in both number and support is something that cannot be ignored, especially considering their anti-immigrant ideology and the fact that immigrant group sizes increase in a globalized world (Swank & Betz, 2003). More specific, scholars acknowledge that PRR parties can endanger the foundations of liberal democracies, like the protection of minority groups (Swank & Betz, 2003; Mudde, 2007).

In explaining the evolution of PRR parties and their increased support from voters, Mudde (2007) distinguishes between supply-side and demand-side explanations. Where supply-side explanations engage in how those parties practice their politics, demand-side explanations engage in the factors influencing the demand for those parties (Mudde, 2007; Muis & Immerzeel, 2017). On the macro-level, Mudde (2007) reckons crises to affect the demand for PRR parties. This implies that the migration crisis of 2015 itself might create more support for PRR parties in Europe, although the economic crisis from 2008 offers a reason for scapegoating minorities as well (Bobo, 1983; Quillian, 1995). Alternatively, Muis and Immerzeel (2017) state that macro demand-side explanations do not account for any short-term fluctuations within countries, such as the economic crisis from 2008 and the migration crisis of 2015. For example, comparing Austria and Germany, whereas Austria is less deprived than Germany during those crises, one would expect the PRR support to be larger in Germany than in Austria, which is not the case. In fact, Knigge (1998), and Arzheimer and Carter (2006) likewise found evidence that support for PRR is lower in times of relative unfortunate economic conditions. In addition, the role of media is underlined by several scholars, as news coverage on typical PRR issues such as immigration, and law and order tend to enhance the attractiveness of those PRR parties (Boomgaarden & Vliegenthart, 2007).

Considering socio-demographic characteristics of PRR voters and supporters, extensive research has been conducted (Muis & Immerzeel, 2017). Two general conclusions can be distinguished from this research. First, PRR voting seems to be related to policies regarding immigration, and law and order, rather than voting for the ideology of those parties. Research to the motivations to vote for a PRR party indicates that cultural and economic grievances represent the majority of the reasons to vote for PRR parties (Golder, 2016). Second, no conclusions can be made according to the characteristics of those people, as for example the support for Jobbik (Hungary) stems from younger and higher-educated people, considering that one would expect the people which suffer most from economic grievances to vote for PRR parties (Muis & Immerzeel, 2017). Furthermore, Mudde (2007) assumes the attitudes of individuals as one of the micro-level factors influencing the demand of PRR parties. When the level of threat perceived by individuals increases by the entrance of outgroups, negative perceived sentiments towards foreigners can develop. Subsequently, this can lead to specific behaviour regarding those outgroups. The so-called 'competitive exclusion' causes voting for PRR parties (Olzak, 1992). In fact,

Rink et al. (2009) state that voting for a PRR party is the best alternative for competitive exclusion, as expulsion and lynching is not possible in democratic societies. In the following paragraph, more attention will be offered to the concept of attitudes and sentiments towards immigration, as mixed evidence regarding the effect of PRR success on those attitudes exist (Muis & Immerzeel, 2017).

2.2 Consequences of PRR success

The emergence and increased support for PRR parties might have macro-level consequences, for example consequences for policies regarding immigration and integration in governments of countries (Mudde, 2013; Muis & Immerzeel, 2017). To illustrate, Mudde (2013) concludes that the influence of PRR parties in policy making at the governmental level is limited to immigration and integration issues, while this impact is modest and indirect. This indirect effect stems from the influence of PRR parties on other parties, as ideologies of those other parties might converge towards the extreme right regarding immigration-related issues (Van Spanje, 2010). These shifts occur mostly at mainstream right-wing parties (Akkerman, 2015). Effects of the participation of PRR parties in governments regarding the dynamics of their own ideology are not detected (Akkerman et al., 2016), although Mudde (2013) expected entrance into the government to undermine the oppositional character of PRR parties.

Shifting towards the micro-level, PRR success might affect individuals as well. To illustrate, when PRR parties are gaining support, enter governments, and consequently have a larger share in decision making, their anti-immigration ideology might affect views and voting behaviour of individuals. Bale (2003) describes this process as PRR parties making issues such as immigration and integration more salient amongst individuals that otherwise would not have been informed about these issues. Nonetheless, empirical evidence from Bohman and Hjerm (2016) indicates that over time PRR parties are not responsible for changes in anti-immigration attitudes. However, this research only focused on the period between 2002 and 2012, thereby ignoring the possible negative consequences of the migration crisis of 2015. Muis and Immerzeel (2017) acknowledge the lack of longitudinal studies aiming at the consequences of PRR success for individual attitudes concerning immigration issues, although a solid argumentation for the direction of this effect is missing. It is even more striking that they conclude by noticing that Berning and Schlueter (2016) discovered, based on German and Dutch panel data, that attitudes concerning immigration precede rather than follow PRR support. This notion supports the idea of this study to examine the effect of perceived sentiments towards foreigners on PRR voting rather than the other way around.

2.3 Group threat theory

The idea that attitudes towards foreigners or immigrants predict PRR support instead of the other way around, is suggested by several scholars, as people's perceptions of threat from immigration is considered the crucial predictor for PRR support (Lubbers et al., 2002; Norris, 2005; Rydgren, 2007; Arzheimer, 2008). The main theoretical framework for explaining the effect of perceived threat towards immigrants on PRR support derives from the group threat theory. The group threat theory assumes that attitudes and the subsequent competition between ingroup and outgroup originates in the idea of maintaining the groups' status position and resources (Blumer, 1958; Quillian, 1995; Schneider, 2008). The theory originates in the concept of racial prejudice, as individuals perceive their agencies as belonging to a racial group (Blumer, 1958; Quillian, 1995). The basis of racial prejudice is counter-identification with another group, alongside feelings of superiority over the other group, a feeling of existing differences between the groups, feelings of having certain privileges, and feelings that the other group claims these privileges (Charitopoulou & García-Manglano, 2017). Applied to immigration within the context of a country, this theory implies that the competition is interethnic, and immigrants are thus conceived as threats to the national ingroup (Schlueter & Scheepers, 2010).

Competition between the groups can develop with respect to (material) resources, status,

(cultural) values, and identity (Schneider, 2008; Berning & Schlueter, 2016). Furthermore, on the individual level, this competition can be felt by ingroup members, as they might fear for their own resources when outgroup members have the same economic niches as they have (Olzak, 1992). Even when individual members of the ingroup might not feel threatened by the outgroup, they might see the outgroup endangering the common interests of the national ingroup (Riek et al., 2006). A zero-sum belief explains the negative perceived sentiments towards foreigners in this context: the gain of one group implies the loss for another group (Bobo, 1983). The anti-immigration ideology from PRR parties comes into play for establishing the aim of defending the dominant status of the national ingroup (Berning & Schlueter, 2016).

2.4 Minority and majority

When the mechanisms as proposed by the group threat theory are correct, the relative size of the immigrant outgroup matters. In fact, the dynamics of the group threat theory can activate via the mechanism of minority group size relative to the majority (Quillian, 1995). This entails that a growing minority can sharpen the competition over resources, as in this case the minority will take more of the resources only because they are increasing in size. Following the reasoning from the group threat theory, an increasing number of immigrants causes more competition felt by the ingroup, resulting in more racial prejudices from the ingroup towards the outgroup. Especially when the ingroup and outgroup are proximally close, negative attitudes towards the minority can develop (Charitopoulou & García-Manglano, 2017). This proximity happens when immigrants are entering the host country. Quillian (1995) published the first cross-national study on perceived sentiments towards foreigners, testing for relative group size of immigrants influencing anti-immigrant attitudes. Other studies have been conducted afterwards, where multivariate and multi-level analyses on anti-immigrant attitudes illustrated that perceived threat had a significant influence on anti-immigrant attitudes (Scheepers et al., 2002; Semyonov et al., 2006). However, Schneider (2008) concludes that it is not the competition between groups that explain the differences in anti-immigrant attitudes, yet rather the lack of familiarity and fear of conflict over culture. Hence, this research aims at considering attitudes towards foreigners more broadly than only perceived threat.

The major issue with the mechanisms as proposed by the group threat theory regarding immigrant group size is the mixed empirical evidence. Cross-national studies have revealed evidence for a positive relationship between minority group size and PRR voting (Jackman & Volpert, 1996; Knigge, 1998; Lubbers et al., 2002; Golder, 2003), while others failed to encounter evidence (Hjerm, 2007). One level below, within countries, a positive relationship between minority group size and PRR voting is found in the Netherlands (De Vos & Deurloo, 1999) and in Belgium (Coffé et al., 2007), while in Germany (Lubbers & Scheepers, 2000), Sweden (Hjerm, 2009) and the United Kingdom (Biggs & Knauss, 2012) no evidence is discovered. These empirical results imply that it stays uncertain whether an increasing minority is accompanied by perceived threat by the majority, leading to behaviour such as PRR voting.

One possible explanation for these diverging results might be that the definition of the minority differs between the studies, although two of the above mentioned studies (Coffé et al., 2007; De Vos & Deurloo, 1999) both use a narrow definition of the minority group (e.g. people from a specific country, in this case Morocco or Turkey) and do not acquire the same results (Charitopoulou & García-Manglano, 2017). This hints at the possibility of diverging results for different minority groups. Furthermore, this denotes that distinct sorts of threat might exist for different kinds of minority groups and subsequently PRR voting is dependent of this threat. This is one of the main reasons to strengthen the mechanism of perceived sentiments towards foreigners in this study, as in reality different immigrant groups will enter host countries and thus different kinds of attitudes towards immigration might exist.

In addition, the group threat theory can in like manner be set in motion via the mechanism of unfavourable economic conditions. This is related to the concept of scapegoating, where the minority is blamed for these economic conditions and held responsible for the heightened competition that occurs because of these unfavourable economic conditions (Bobo, 1983; Quillian, 1995). Scholars found mixed evidence according the relationship between unemployment or unfavourable economic conditions and PRR voting. In this study, there will be controlled for economic conditions to put more emphasis on the mechanism of immigrant group size in the group threat theory.

2.5 Intergroup contact theory

In contrast to the previous reasoning, perceived sentiments towards foreigners could as well turn out positive. The growing familiarity when outgroup members are proximally close can for example lead to a friendship potential, while the opposite reasoning is more common: the absence of interaction between ingroup and outgroup leads to more opportunities for racial prejudices to emerge (Allport, 1954; Pettigrew, 1998). Allport his intergroup contact hypothesis (1954) states that intergroup contact is perceived positively when four conditions are met: (1) there is equal group status between the groups within the situation, (2) there is a common goal for the groups, (3) there is intergroup cooperation towards these goals and (4) authorities support the intergroup cooperation (Pettigrew, 1998, p.75). Pettigrew (1998) extends these conditions with (5) "the contact situation must provide the participants with the opportunity to become friends" (Pettigrew, 1998, p.76). This fifth condition is referred to as the friendship potential. The main difference between the intergroup contact theory, as this reasoning is called with the extension of Pettigrew, and the group threat theory is the effect on the individual itself. Whereas the group threat theory remains at the group level, in which the perceived sentiments felt due to the entrance of outgroups and the subsequent behaviours seem to be universal for all ingroup members, the intergroup contact theory puts more emphasis on the consequences of group dynamics for group members itself. When the intergroup contact theory is applied to the situation of immigrants entering the host country, one would expect the possibility of interaction to take away racial prejudices, thereby lowering the chance of the development of perceived threat. Consequently, behaviour based on individual attitudes such as PRR voting will not occur. This reasoning causes the group threat theory and intergroup contact theory to be the opposite when applied to the relationship between immigrant group size and PRR voting.

A critical reader might question that the group threat theory generalizes ingroup members as they all develop negative sentiments towards foreigners and act towards these negative sentiments, while intergroup contact theory generalizes the opportunity for intergroup interaction amongst all ingroup members. What these theories have in common is that they reason from a perspective of individuals developing attitudes towards a macro phenomenon, in this case the immigrant group size. Additionally, intergroup contact theory is the only theory that assumes positive perceived sentiments towards foreigners to exist or develop, although this is not touched upon in other studies. Again, this is one of the reasons to put more emphasis on perceived sentiments towards foreigners in general in this study, instead of focusing on perceived threat alone.

Empirical evidence for the intergroup contact theory is uncovered in smaller geographical regions in France (Jolly & DiGiusto, 2014) and Germany (Teney, 2012). However, Pettigrew (1998) points at a possible selection bias within the intergroup contact hypothesis: people who already are more negative prejudiced might avoid intergroup contact, while those who tend to have less racial prejudice are more open to intergroup contact. While concluding about any causal effect in the mechanism of the intergroup contact theory, cross-sectional studies do not provide disclosure. As the empirical evidence from Jolly and DiGiusto (2014) and Teney (2012) is cross-sectional rather than longitudinal, it remains uncertain whether the possibility of intergroup contact in case of an increasing immigrant group size

causes less people to vote for PRR, as their perceived sentiments towards foreigners tend to become less prejudiced and more positive.

2.6 Combining group threat theory and intergroup contact theory

As stated earlier, the group threat theory and intergroup contact theory argue adversative: the group threat theory assumes that when faced with an outgroup, negative attitudes and prejudices will develop, while intergroup contact theory assumes that when faced with an outgroup, positive attitudes can develop when interaction is possible. Consequently, these attitudes have their effect on behaviour, like voting for PRR. Over time, several studies have been conducted to clarify these opposing theories (Stein et al., 2000; Biggs & Knauss, 2012). Interestingly, those studies reveal that the unit of analysis affects the mechanisms of group threat theory and intergroup contact theory. To illustrate, Biggs and Knauss (2012) identify in the United Kingdom the neighbourhood level as the unit of analysis on which the intergroup contact theory works, but as they moved up towards higher levels of analysis towards authority level, group threat theory prevails. They argue that the differentiation of the spatial scale can disentangle the mechanisms in the contrary theories. Whereas threat is perceived over greater distances, for example at the country level, when the general economy or culture is threatened by the inflow of minorities, contact is only possible at smaller spatial scales, such as within neighbourhoods or villages (Biggs & Knauss, 2012). Applied to a random individual, this would imply that two mechanisms can work simultaneously: he or she can both feel positive and negative sentiments towards foreigners, dependent on contact opportunities and the level of threat felt in case of macro contexts such as economic and cultural contexts.

The study of Biggs and Knauss (2012) seems promising in solving the contradictory empirical evidence in the group threat theory and intergroup contact theory, although the study is cross-sectional and is therefore not able to isolate causal effects. Moreover, the exact threshold when the mechanisms of the intergroup contact theory shift to the mechanisms of the group threat theory on a spatial scale is unknown and does not provide generalizable results as neighbourhoods might differ in their ethnic composition. Lastly, a fundamental remark must be made according to the subjective perception of the objective size of immigrant groups. Empirical evidence demonstrates that people in the majority or ingroup tend to overestimate the size of the minority or outgroup (Citrin & Sides, 2008). When applied to the group threat theory, threats experienced by ingroup members would be larger realizing that ingroup members overestimate the size of the outgroup, as earlier is concluded that the size of the outgroup is relevant for the development of perceived threat (Quillian, 1995). However, when applied to the intergroup contact theory, this reasoning is not relevant. As the intergroup contact theory argues from a contact perspective, the subjective perception of the size of the immigrant group makes no difference in contact opportunities. It is rather the objective size of immigrant groups that influences the opportunities of one-on-one contact.

2.7 Fear of small numbers theory

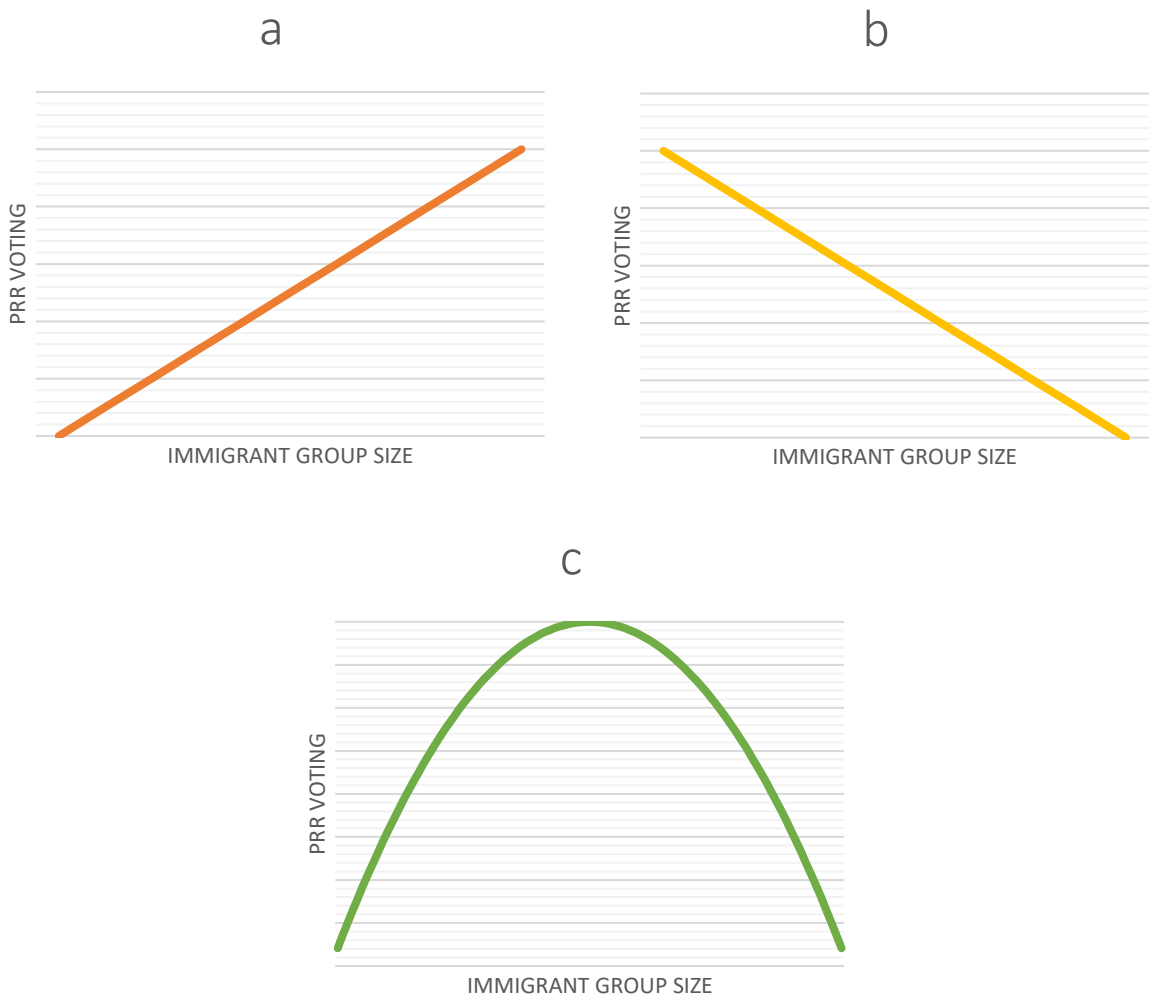
Zooming in on to the concept of majority and minority to obtain a grip on these concepts, Appadurai (2006) defends the thesis that these concepts are man-made and consequences of the formation of modern nations as they are known nowadays. Moreover, he argues that the majority is concerned with the sovereignty of their nation and the current globalization leads to feelings of anxiety, as the majority is not able to maintain their sovereignty when other groups are entering the nation. According to Appadurai, it is this feeling that leads the majority to work towards closing the gap between the majority and the “purity of the national whole” (Appadurai, 2006, p. 52). This goal can be reached by the emergence of racial prejudices or even more radical, the emergence of PRR parties. However, Appadurai (2006) acknowledges the concept of the relative size of minority and majority to be significant. In case of the purity being threatened by a small minority, it makes sense to fight against

this minority to maintain the purity of the nation. Nonetheless, in case of a large or increasing minority, it becomes more difficult to maintain the purity and closing the gap between the majority and the minority is not effective anymore.

Following this reasoning, Charitopoulou and García-Manglano (2017) argue that the group threat theory and intergroup contact theory, when applied to Appadurai his argumentation, differ as the mechanisms of the group threat theory might be active considering a small minority, while at the same time the mechanisms of the intergroup contact theory might be active considering a large minority. When a small minority is present, it is effective to be prejudiced and vote for PRR, aiming at maintaining the purity of the nation. On the contrary, when the minority is already large, maintaining the purity of the nation is not a feasible goal and the opportunity for intergroup contact increases, leading to less racial prejudice and subsequently less PRR voting. As Appadurai (2006) speaks about the 'fear of small numbers', the application of this proposition to the relationship between immigrant group size and PRR voting is called 'the fear of small numbers theory' by Charitopoulou and García-Manglano (2017). The theory is graphically illustrated in figure 1 below, alongside the group threat theory and intergroup contact theory.

As the figure indicates for the fear of small numbers theory, an increasing immigrant group size is accompanied by an increase in PRR voting until a certain threshold, after which an increasing immigrant group size is accompanied by a decrease in PRR voting. Empirical evidence for this theory is revealed, although not explicitly tested, as Charitopoulou & García-Manglano seem to be the first to apply the ideas of Appadurai to the relationship between immigrant group size and PRR voting. When it is assumed that this relationship between immigrant group size and PRR voting is curve-linear, evidence is found in Belgium (Rink et al., 2009). This study about the voting for Vlaams Blok, a PRR party from that country, revealed that a curve-linear trend between PRR voting and immigrant group size described the relationship. The threshold in that study was around 4.8% immigrant population as part of the total population, as before this percentage PRR voting increased with increasing immigrant group size and after this percentage PRR voting decreased with increasing immigrant group size. Cross-nationally in Europe, Schneider (2008) uncovered evidence for a non-linear effect of immigrant group size on anti-immigrant attitudes. This result does not imply a non-linear effect on PRR voting, although anti-immigration attitudes could be a proxy for PRR voting. Charitopoulou & García-Manglano (2017) tested the theory in Switzerland and found evidence, although the results are only marginally significant and strongly based on the level of perceived ethnic threat. In like manner, the definition of immigrants reveals divergence in the results, as the theory holds for the overall proportion of immigrants, yet not for Eastern European and Balkans immigrants (Charitopoulou & García-Manglano, 2017).

Figure 1 Group threat theory (a), intergroup contact theory (b), and fear of small numbers (c)



a) Source: a) Quillian (1995), b) Pettigrew (1998), c) Appadurai (2006) & Charitopoulou & García-Manglano (2017)

From the figures above and the three theories, the hypotheses for the current study are formulated. The first two hypotheses regarding group threat theory are formulated to provide clarity about the mechanisms over time, meaning in a dynamic way as this study is performed longitudinal:

H1 An increase in immigrant group size will lead to an increase in PRR voting (direct effect)

H1a An increase in immigrant group size will lead to an increase in PRR voting for those most likely to perceive foreigners negative (moderation effect)

Second, the following hypotheses regarding the intergroup contact theory are formulated to provide clarity about the mechanisms:

H2 An increase in immigrant group size will lead to a decrease in PRR voting (direct effect)

H2a An increase in immigrant group size will lead to a decrease in PRR voting for those most likely to perceive foreigners positive (moderation effect)

Third, the following hypotheses regarding the fear of small numbers theory are formulated to provide clarity about the mechanisms:

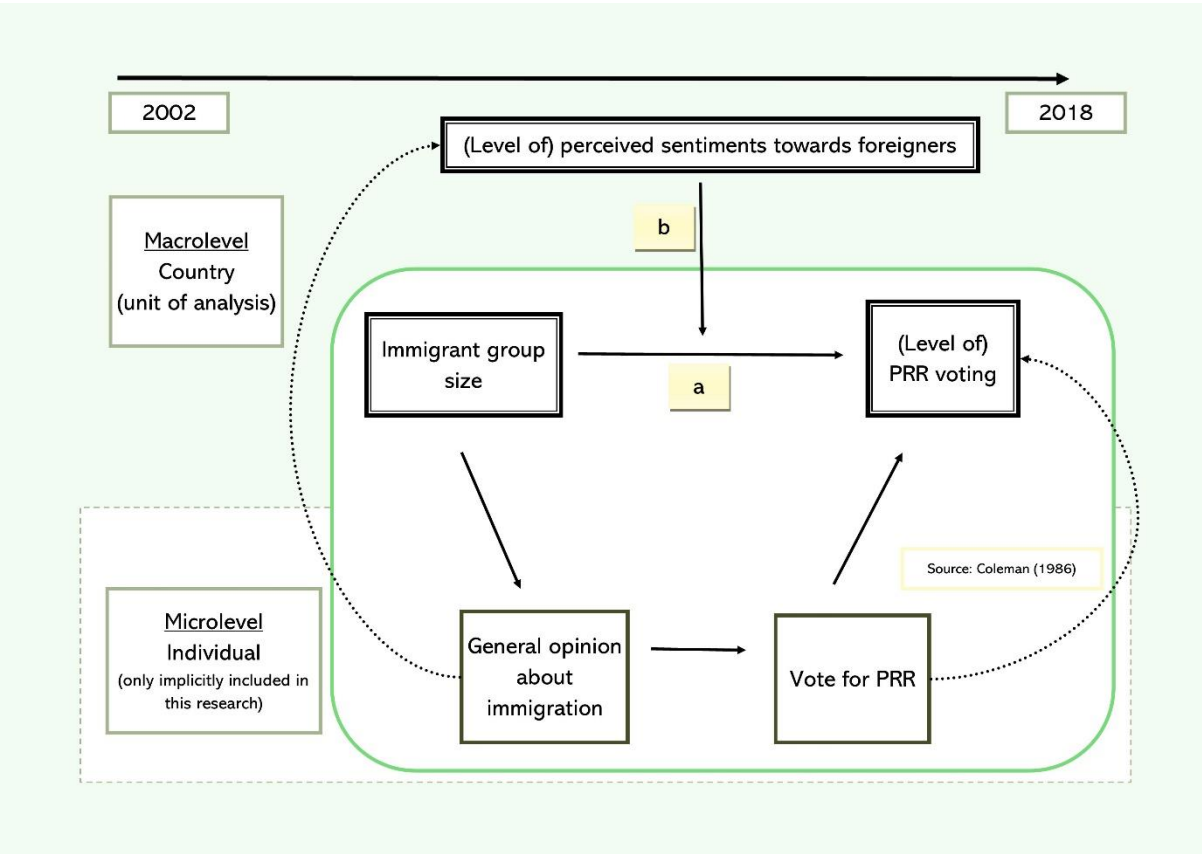
H3 An increase in immigrant group size will lead to an increase in PRR voting until a threshold, after which an increase in immigrant group size will lead to a decrease in PRR voting (direct effect)

H3a An increase in immigrant group size will lead to an increase in PRR voting until a threshold, after which an increase in immigrant group size will lead to a decrease in PRR voting, for those most likely to perceive foreigners negative (moderation effect)

2.8 Conceptual framework

Several research gaps and limitations of other research are described above, amongst the critical ones are the lack of longitudinal studies and consequently the uncertainty about causal effects, the contradictory results according the group threat theory and intergroup contact theory, the lack of empirical evidence for the fear of small numbers theory over time, and the limitations with regard to the measurement of perceived sentiments towards foreigners. Another limitation derived from the review above is the difference between origins of immigrant groups regarding the relationship between immigrant group size and PRR voting. However, the current research is not able to distinguish between those groups by reason of data. Therefore, this topic is not touched upon any further. The other research gaps about the theories for immigrant group size, perceived sentiments towards foreigners and PRR voting lead to the following conceptual framework in figure 2.

Figure 2 Conceptual framework



As can be derived from the figure above, which denotes a 'Coleman boat', this study aims at capturing the effects of immigrant group size on PRR voting over time, from 2002 until 2018. The study focuses on the macro-level, as the country is selected as the unit of analysis. The main reason for this choice is

the availability and quality of data. Following the Coleman boat, the macro phenomenon of immigrant group size is expected to affect the macro phenomenon of PRR voting. At the micro-level, it is illustrated in the figure that immigrant group size is expected to affect the general opinion of an individual regarding immigration. These opinions will be captured in a macro concept in the form of the level of perceived sentiments towards foreigners on average, which differs amongst countries. The general opinion about immigration is likely to affect voting for PRR on the individual level, which will in like manner be captured in a macro measure for the level of PRR voting in a country. The relationship referred to as 'a' indicates the hypotheses about the direct effect of immigrant group size on PRR voting, 'b' refers to the moderation effect of perceived sentiments towards foreigners in this relationship.

3 Methodology

3.1 Study design

For this quantitative research, the longitudinal macro-approach from Arpino et al. (2015) is used. In their paper, the authors examine the diffusion of gender-equitable attitudes towards female employment which they assume is associated with fertility rates. In their macro-level analysis, they take 27 countries and examine the change of those gender-equitable attitudes over time and examine the effect on fertility rates. The authors use the World Values Study (WVS) and European Values study (EVS) and take the waves of these two studies as panel data. Their macro-approach deals with the same issue as this research does, which that a macro-level variable, like gender equity in the Arpino et al. (2015) paper and immigrant group size in this research, influences a micro-level variable, like fertility behaviour or voting for PRR. As this research is interested in the changes over time and within countries, their approach on the macro-level is appropriate for this research. In short, this methodology takes all the variables at a macro-level, in this case the country level, and takes waves of the used surveys as a measure of time. The analyses are performed as panel or longitudinal regression analyses. This implies that some of the variables, such as PRR voting, need to be reconstructed to a meaningful macro-variable.

3.2 Description of secondary data

The European Social Survey (ESS) is used for the variables about perceived sentiments towards foreigners and PRR voting. The ESS is a cross-sectional and cross-national survey about the attitudes and behaviour of European inhabitants. This survey is conducted every two years and uses a representative sample of European inhabitants aged 15 years and over in several European countries (ESS, 2020). Since the start of the survey with the first round in 2002, nine rounds of data collection have been performed, with the most recent round performed in 2018. The topics covered by the ESS in each wave are for example media and social trust, human values, politics, and well-being (ESS, 2020). Each participating country needs to have a minimum effective sample size of 1500, although for smaller countries (with a population of less than 2 million) this number is 800 (ESS, 2020). All participating countries use cross-sectional probability sampling for selecting participants. The data is collected via face-to-face interviews in each country.

Eurostat is consulted for the variables about immigrant group size. The statistics offered by Eurostat are derived from administrative sources in each European country and other registers (Eurostat, 2020). Eurostat offers downloadable datasets for several demographic measures, like the population size and immigration numbers. For this research, the numbers derived from Eurostat are those stating the number of immigrants per country per year. Immigration is defined by Eurostat as “the action by which a person establishes his or her usual residence in the territory of a Member State for a period that is, or is expected to be, of at least 12 months, having previously been usually resident in another Member State or a third country (Regulation (EC) No 862/2007 on Migration and international protection).” (Eurostat, 2020a). Besides these numbers, the population size numbers for each country and year are downloaded, causing the immigration numbers to be more comparable across time, and between and within countries.

3.3 Data quality of secondary data

The ESS Core Scientific Team (CST) is responsible of ensuring data quality of the ESS (ESS, 2020a). Ensuring data quality includes evaluating data quality and comparability of measurement instruments and looking at the socio-demographic sample composition in each country and wave. The Multitrait-Multimethod is used for measurement quality of single questions (ESS, 2020a). The supplementary data of the Arpino et al. (2015) paper uses this method of ESS to evaluate the measurement of several variables in the WVS and EVS as well. The idea is that the different concepts are measured twice with

different scales. This method therefore can estimate reliability, validity, and method effects of the questions included in the ESS. This method is the basis of the Survey Quality Predictor (SQP) which is an online software tool that is developed to predict measurement quality of survey questions. The assessment of socio-demographic sample composition is performed by comparing the survey with the European Union Labour Force Survey (ESS 2020a).

The Eurostat Quality Team ensures data quality in case of the statistics offered by Eurostat (Eurostat, 2020b). The European Statistics Code of Practice is the standard for Eurostat for developing, producing, and disseminating the statistics (Eurostat, 2020b). More practically, the Quality Assurance Framework of the European Statistical System (ESS QAF) is the tool for implementing this code of practice. The data quality of Eurostat is partly derived from the idea that the product must be related to the need of the user. This means that the data needs a specific purpose to be informative and useful (Eurostat, 2020b).

3.4 Concepts and operationalization

In this paragraph, the three main variables of this study will be discussed. For each of the variables, it will be stated how the variable is conceptualized and operationalized. Information about missing values of each of the variables is located in the methodological appendix.

3.4.1 Perceived sentiments towards foreigners

The first concept of this study is perceived sentiments towards foreigners, which is conceptualized as individuals' sentiments towards immigrants present within their country. To measure this opinion as accurate as possible, an aggregated variable is constructed to collect valid information that reflects the opinion individuals have towards foreigners. For this reason, it is essential to include questions that will reflect a wide range of opinions people can have towards immigration and immigrants. Immigrants are defined by the ESS as "people from other countries coming to live in [country]" (ESS, 2020b). As the definition of immigrants and foreigners might be perceived differently by individuals answering this question, it is crucial to keep in mind that this definition stated here might not be the definition in mind of individuals answering these questions. This can lead to possible bias in the results. Perceived sentiments towards foreigners is measured in this research with the use of questions in the ESS that focus on immigrants. The six questions are stated in the table below.

Table 1 Questions in the European Social Survey regarding immigration

1.	To what extent do you think [country] should allow people of the same race or ethnic group as most [country]'s people to come and live here?
2.	How about people of a different race or ethnic group from most [country] people?
3.	How about people from the poorer countries outside Europe?
4.	Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?
5.	And, using this card, would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries?
6.	Is [country] made a worse or a better place to live by people coming to live here from other countries?

The answer categories from question 1 to 3 are 1 - Allow many to come and live here, 2 - Allow some, 3 - Allow a few, 4 - Allow none. A higher score on these questions means more negative perceived sentiments towards foreigners, while a lower score means more positive perceived sentiments towards foreigners. Question 4 to 6 include an answering scale from 0 to 10, where 0 represents negative perceived sentiments towards foreigners and 10 represents positive perceived sentiments towards

foreigners. To construct one variable, the scores of the first three questions will be rescaled the other way around. A factor analysis is performed afterwards to control whether the six questions are related enough to construct one variable. This factor analysis indicates that the six questions load on one factor with loadings between 0.83 (question 2) and 0.68 (question 1). Scale reliability can be tested via the Cronbach's alpha (α), which is a test for internal consistency. This α is 0.83, which indicates that these six questions have enough internal consistency for creating one measure. Output of this factor analysis and reliability analysis is located in the methodological appendix.

The new created variable based on the six questions in the ESS is called 'psentiments' and indicates the level of perceived sentiments towards foreigners by summing the values of the six questions together. The variable ranges from 3 until 42 and is normally distributed (output in the methodological appendix). The higher the score on 'psentiments', the more positive the perceived sentiments towards foreigners are. To transform this individual-level variable for the macro dataset, the variable is restructured so that the mean, median, 25%-, and 75%-percentile from the distribution of this variable for each country in each wave is entered in the macro-dataset. In the methodological appendix, an example table is located, in which for each country these four measures are presented. Perceived sentiments towards foreigners is thus measured per wave (t) and country (c), in which the mean of this measure per wave and country will be included in the model:

Perceived sentiments towards foreigners$_{c,t}$ *= μ (perceived sentiments towards foreigners) in country c and in wave t.*

3.4.2 Immigrant group size

The second concept is immigrant group size. Schneider (2008), amongst others, emphasizes the difficulty with the concept of immigrants, as there are differences between countries with the acquirement of citizenship in Europe. The best indicator for immigrant group size therefore must be derived from the data source for this data, namely Eurostat, which provides the numbers of immigrants in each European country for each year. Subsequently, immigrant group size can be interpreted in several ways. The number of immigrants can be divided by the number of the population size in the country in each year, so that immigrant group size is measured like a share. As this share is comparable then between years and countries, this is the preferred measure for this research. Immigrant group size is included in the model as the percentage of immigrant group size in a country in a wave:

Immigrant group size$_{c,t}$ *= % immigrant group size in country c and in wave t / population size in country c and in wave t*

3.4.3 PRR voting

The third concept is PRR voting, which is conceptualized as voting for a political party which is considered populist radical right during national elections. For this concept, a variable is constructed based on the country-specific ESS question 'To which party did you give your first-preference vote in that election?'. For each of the countries included in this study, it needs to be defined what the PRR parties are. This classification is based on two sources, namely information from The PopuList (Rooduijn et al., 2020) and Wikipedia. The PopuList is a dataset supported by the Amsterdam Institute for Social Science Research, the Amsterdam Centre for European Studies, The Guardian and the ECPR Standing group on Extremism and Democracy, which states the several European populist and far right parties. The definitions used for the classification of the PopuList are derived from Mudde (2004) and Mudde (2007), who characterises populist and far right parties as stated in the table below.

Table 2 Characteristics PRR parties

Populist parties	"Parties that endorse the set of ideas that society is ultimately separated into two homogeneous and antagonistic groups, "the pure people" versus "the corrupt elite," and which argues that politics should be an expression of the volonté générale (general will) of the people"
Far right parties	"Parties that are nativist (which is an ideology that holds that states should be inhabited exclusively by members of the native group and that non-native elements are fundamentally threatening to the homogenous nation-state) and authoritarian (which is the belief in a strictly ordered society, in which infringements of authority are to be punished severely)"

a) Source: Mudde (2004), Mudde (2007)

Both these definitions need to be met for a political party to be considered populist radical right in this research. A second source is used as The PopuList only consists of parties that have either won 1 seat in national elections or has at least 2% of the votes. This source is Wikipedia, who provides lists of general right oriented political parties in several countries in Europe. For each of these parties, Wikipedia includes a classification in terms of anti-immigration ideology. This classification is used to control the parties mentioned in The PopuList and came up with other parties which are not found in The PopuList by reason of size of the party. Lastly, the parties which are considered both far right (or radical right) and populist needed to be included in the possible answers on the question about voting in the ESS. These three selection mechanisms have led to the list of PRR parties which is located in the methodological appendix.

With the use of this list, an excel-file is created in which for each ESS round the share of PRR votes is calculated per PRR party. This is calculated by taking the tabulation of the question about voting and dividing the number of votes for a PRR party by the total number of votes in that wave and in that country, while at the same time using weights correcting for design and population sampling. These shares are summed in case a country had more than one PRR party to vote for and manually entered in the macro dataset for each country and year, in the form of the variable 'Share_PRR_voting'. In some cases, information is not available from the ESS by reason of a country missing a research wave. In this case, information from the Parliaments and Governments database (parlgov) of the University of Bremen will be used, as discussed in the methodological appendix (Döring & Manow, 2019). Voting for PRR parties is included in the model as the dependent variable, in which the percentage of PRR votes of all votes in a country in a wave is included in the model:

$$PRR\ voting_{c,t} = \%\ PRR\ votes\ in\ country\ c\ and\ in\ wave\ t$$

3.5 Data analysis

First, the changes over time in each of the countries that are included in the research are examined with the use of descriptive statistics. Second, the variables mentioned above will be used so that a dynamic model can be estimated with PRR voting as the dependent variable. The model is defined as:

$$PRR\ voting_{c,t} = \beta_0 + \beta_1\ Perceived\ sentiments\ towards\ foreigners_{c,t} + \beta_2\ Immigrant\ group\ size_{c,t} + \beta_3\ Immigrant\ group\ size^2_{c,t} + \beta_4\ Perceived\ sentiments\ towards\ foreigners_{c,t}\ x\ Immigrant\ group\ size_{c,t} + + \beta_5\ Perceived\ sentiments\ towards\ foreigners_{c,t}\ x\ Immigrant\ group\ size^2_{c,t} + \alpha_c + \varepsilon_{c,t}$$

in which $\beta_3\ Immigrant\ group\ size^2_{c,t}$ is added for the non-linear effect of immigrant group size on PRR voting as the fear of small numbers theory predicts and $\beta_4\ Perceived\ sentiments\ towards\ foreigners_{c,t}\ x\ Immigrant\ group\ size^2_{c,t}$ and $\beta_5\ Perceived\ sentiments\ towards\ foreigners_{c,t}\ x\ Immigrant\ group\ size^2_{c,t}$ are added for the moderation effect of perceived sentiments towards foreigners. α_c is added for the country-

fixed effects, as this study is interested in the within-country dynamics of this relationship. $\varepsilon_{c,t}$ is the idiosyncratic error. This model can best be estimated with the use of panel regression analyses, using the fixed effects version.

Robustness checks are performed afterwards to control for the robustness of the model, with the use of alternative measures for the three variables. During the modelling, there are several control variables included. In other studies, economic performance of a country is used to control for, alongside population size and demographic composition. Population size and demographic composition is already controlled for by including weights offered by ESS (see methodologic appendix). To control for economic circumstances, three measurements of economic performance are selected. First, GDP in each wave and in each country is used as a control variable to exclude the effect of GDP on PRR voting. This variable is derived from Eurostat and is measured as the percentage of EU27 (from 2020) total per capita (based on million euro, EU27 from 2020) in current prices. Second, the unemployment rate, measured as the percentage of unemployed people from the active population between 15 and 74 years is included as a control variable. This information again is derived from Eurostat (2020). Third, the Gini coefficient is used as a control variable. This variable is derived from Eurostat (2020) as well and indicates the income equality in a country.

3.6 Ethical considerations and positionality

One of the ethical aspects of quantitative research is how the data will be managed and stored. As secondary data is used, the ethical considerations of data collection and participation are managed by the third party responsible for this, although the use of this data implies that the researcher in charge is responsible for ethical issues as well. This is referred to as the positionality of the researcher. The European Social Survey publishes about methodological aspects of their research, so that it is ensured that the research is performed in an ethical way (ESS, 2020a). One of the ethical aspects which need to be kept in mind is that research must provide benefice to participants. With this research, possible contributions to society and the academic society can be defined. Benefice for participants is guaranteed, although the direct benefits for the individual itself are debatable. Moreover, as voting behaviour and attitudes towards immigrants are sensitive topics, anonymity and respect must be guaranteed.

Moreover, in terms of data management, the European Data Protection Regulation (EDPR) can be used. This framework helps researchers to be aware of the possible risks of storing and managing data during the process of research. Furthermore, this points at the responsibilities of several actors, like universities, researchers themselves and third parties, like the ESS or Eurostat in this research. To know whether data is protected in a suitable way, a Data Protection Impact Assessment (DPIA) can be performed. For this research, it is needed to save the data in a safe environment, as the university offers. With the use of a password, the data is not easily hacked or noticed by others.

4 Results

In this part of the study, the results will be discussed. The first paragraph focuses on the descriptive statistics of the three main variables: immigrant group size, perceived sentiments towards foreigners and PRR voting. The variables will be described in trends over time and within the different countries. In the last part of the descriptive results, bivariate analyses will be reported about, and the paragraph ends with a preliminary conclusion. The second paragraph focuses on the analyses that are performed based on the equation in the method section. First, the relationship between immigrant group size and PRR voting is discussed with tables and figures. Second, the role of perceived sentiments towards foreigners as a moderator is discussed and backed with tables and figures. Third, the different countries are highlighted, and the paragraph ends with a notion on robustness checks. The results paragraph is backed by the results appendix, to which will be referred from time to time.

4.1 Descriptive results

4.1.1 Immigrant group size

As the focus of this research is on the change in immigrant group size over time, it is particularly fundamental to take a closer look into the dynamics of immigrant group size between 2002 and 2018. In table 3, the percentage of the immigrant group size measured as the percentage of immigrants compared to population living in a country is presented.

Table 3 Percentage of immigrants by population size per country and year, in %[a]

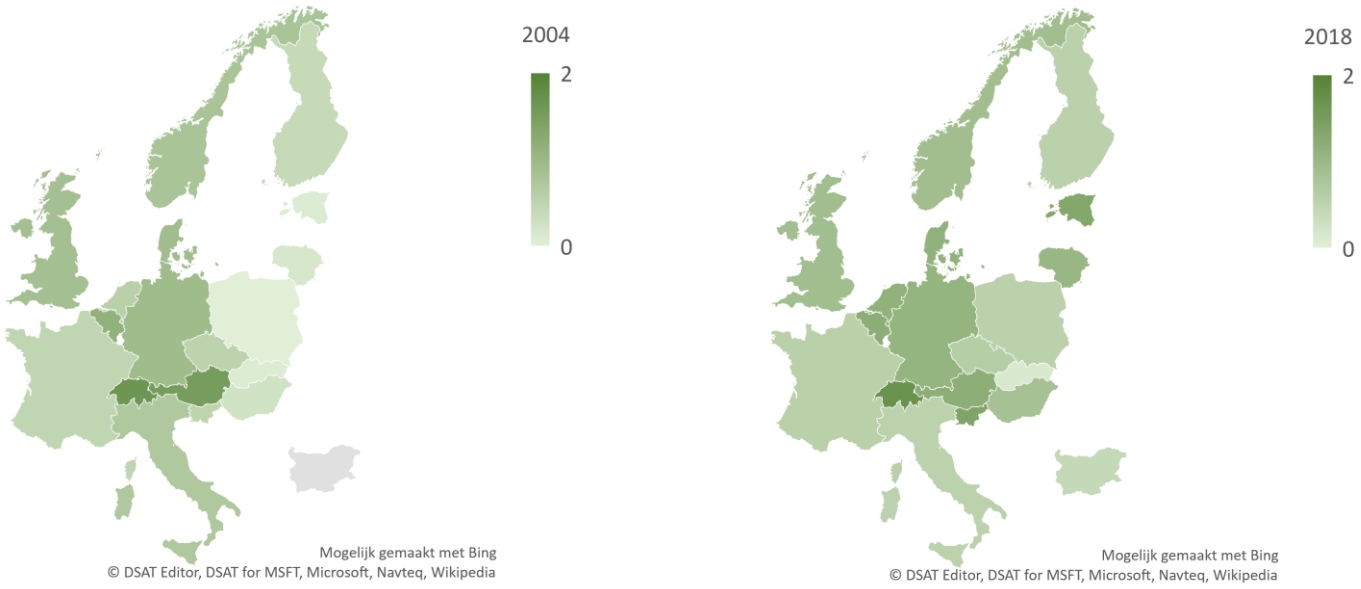
	2002	2004	2006	2008	2010	2012	2014	2016	2018	Mean
Austria	1.34	1.50	1.19	0.89	0.85	1.09	1.37	1.49	1.20	1.21
Belgium	1.10	1.13	1.31		1.25	1.17	1.10	1.09	1.21	1.17
Bulgaria						0.19	0.37	0.30	0.42	0.32
Czechia	0.44	0.52	0.67	1.05	0.46	0.33	0.28	0.61	0.62	0.55
Denmark	0.98	0.92	1.05	1.05	0.94	0.97	1.22	1.30	1.12	1.06
Estonia	0.04	0.08	0.17	0.27	0.21	0.20	0.30	1.13	1.33	0.41
Finland	0.35	0.40	0.43	0.55	0.48	0.58	0.58	0.64	0.56	0.51
France			0.48	0.46	0.48	0.50	0.51	0.57	0.58	0.51
Germany	1.02	0.95	0.80	0.83	0.49	0.73	1.10	1.25	1.08	0.92
Hungary	0.20	0.24	0.26	0.37	0.25	0.34	0.55	0.55	0.85	0.40
Italy	0.37	0.72	0.48	0.91	0.78	0.59	0.46	0.50	0.55	0.60
Lithuania	0.15	0.16	0.24	0.29	0.17	0.66	0.83	0.70	1.03	0.47
Netherlands	0.75	0.58	0.62	0.87	0.76	0.75	0.86	1.11	1.13	0.83
Norway	0.89	0.80	0.99	1.23	1.42	1.40	1.31	1.18	0.90	1.12
Poland	0.02	0.02	0.03	0.04	0.41	0.57	0.58	0.55	0.56	0.31
Slovakia	0.04	0.08	0.10	0.16	0.10	0.10	0.10	0.14	0.13	0.11
Slovenia	0.46	0.51	1.00	1.52	0.75	0.73	0.67	0.81	1.38	0.87
Switzerland	1.76	1.63	1.71	2.43	2.08	1.87	1.92	1.79	1.70	1.88
United Kingdom	0.65	0.87	0.87	0.96	0.95	0.78	0.98	0.90	0.91	0.87
Mean	0.62	0.65	0.68	0.82	0.71	0.71	0.79	0.87	0.91	0.76

a) Calculations based on number of immigrants / population size * 100%
b) N = 163, standard deviation = 0.76, minimum = 0.02, maximum = 2.43, missing values N = 8
c) Source: Eurostat, own calculations

As can be derived from the last row of the table, the mean percentage of immigrant group size over all countries increased from 0.62% in 2002 to 0.91% in 2018. This percentage increases annually except for 2008, where the growth is larger than previous years and decreases in the year after. It is apparent from this table that differences exist between countries. Switzerland has on average the largest percentage of immigrants in the period 2002-2018 (1.88% of the population), whereas Poland has the

smallest percentage of immigrants (0.31% of the population) in the period 2002-2018. The dynamics in each country differ as well, as a country like Lithuania experiences a steady increase over the years from 0.15% immigrants in 2002 to 1.03% in 2018. In contrast, Austria seems to have a decreasing percentage of immigrants over time with a decline from 1.34% to 1.20% over the period 2002-2018. France is representing a different trend, staying on a stable percentage around 0.50% in all years, although this percentage increased to 0.57% in 2016 and 0.58% in 2018. To compare the immigrant group size before and after the migration crisis, a map of Europe is presented in figure 3.

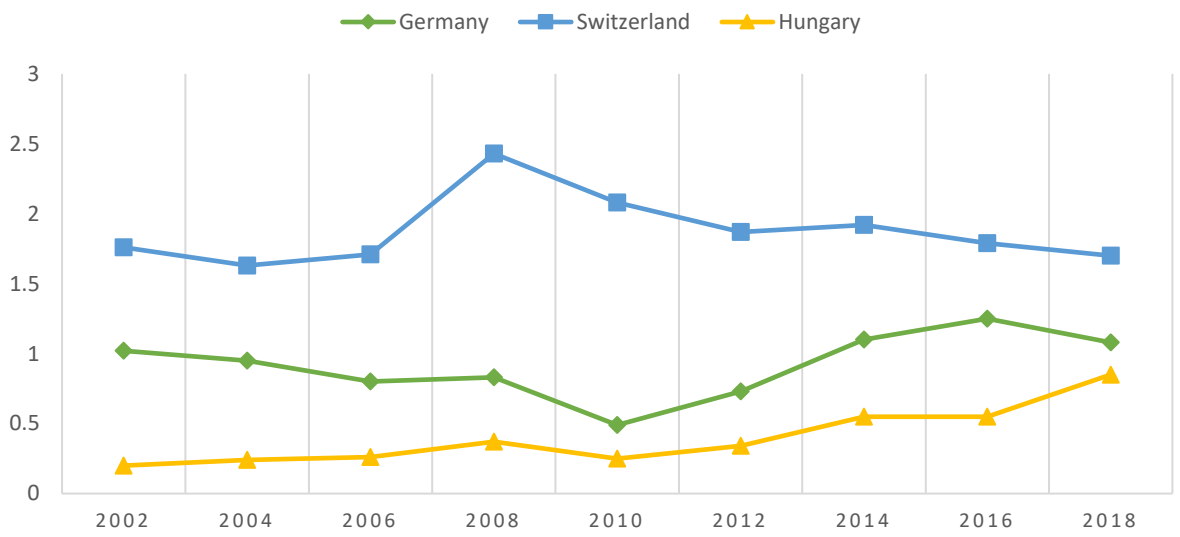
Figure 3 Map of percentage of immigrants per country, 2004 and 2018



a) Source: Eurostat, own calculations
b) France data from 2006 instead of 2004 by reason of missing values

In the Eastern European countries like Hungary and Lithuania, there is a clear trend of increasing immigrant group size. Some countries stay relative stable regarding immigrant group size, like France and Italy, whereas Germany and the Netherlands experience an increase in the percentage of immigrants. Two general trends can be distinguished from these descriptive statistics: (1) an increase in the percentage of immigrants and (2) a moderate increase or stable trend in the percentage of immigrants. The figure below examines the dynamics of immigrant group size for three representative countries in more detail to elaborate more on these two trends. These countries are selected because of their representativeness for the two trends and are used as example countries throughout the whole results section.

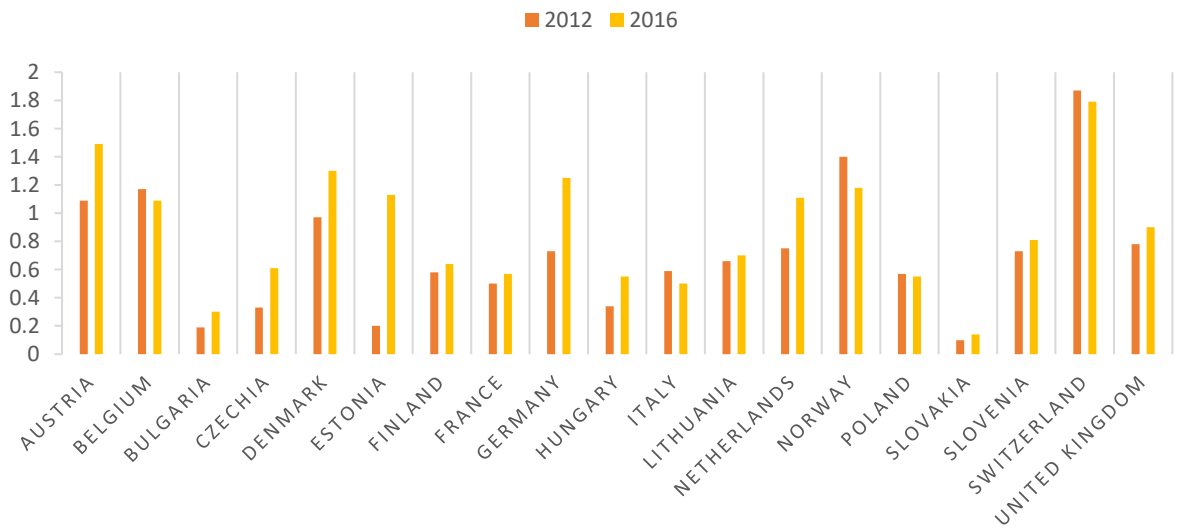
Figure 4 Change over time in immigrant group size for Germany, Switzerland, and Hungary 2002-2018, in %



a) Source: Eurostat, own calculations

Closer inspection of this figure indicates that Hungary experiences a substantial increase in the immigrant group size, while both Germany and Switzerland experience a more stable trend, although over time increase and decrease in immigrant group size tend to alternate. As the migration crisis of 2015 and 2016 is especially of interest for this research, below a figure is provided with the immigrant group size in each of the studied countries for two comparing years before and after the migration crisis.

Figure 5 Immigrant group size per country 2012 and 2016, in %



a) Source: Eurostat, own calculations

It can be seen from the data in figure 5 that almost all countries have a larger immigrant group size in 2016 compared with 2012, except for Belgium, Italy, Norway, Poland, and Switzerland. The difference between 2012 and 2016 is substantial in countries like Estonia and Germany, whereas Slovenia and Lithuania experience a relative smaller increase in immigrant group size. What is striking about this figure is the fact that this is the first indicator that not all countries have experienced a major inflow of

immigrants, let alone experience an increase in immigrant group size at all. This notion is critical to keep in mind during the analyses performed below.

4.1.2 Perceived sentiments towards foreigners

Perceived sentiments towards foreigners is an individual-level variable which states the attitude the individual has towards foreigners, measured as the sum of the answers from six questions in the ESS related to immigrants. The higher the score, the more positive the perceived sentiments towards foreigners. In the table below, the mean of this score for each country and year is provided.

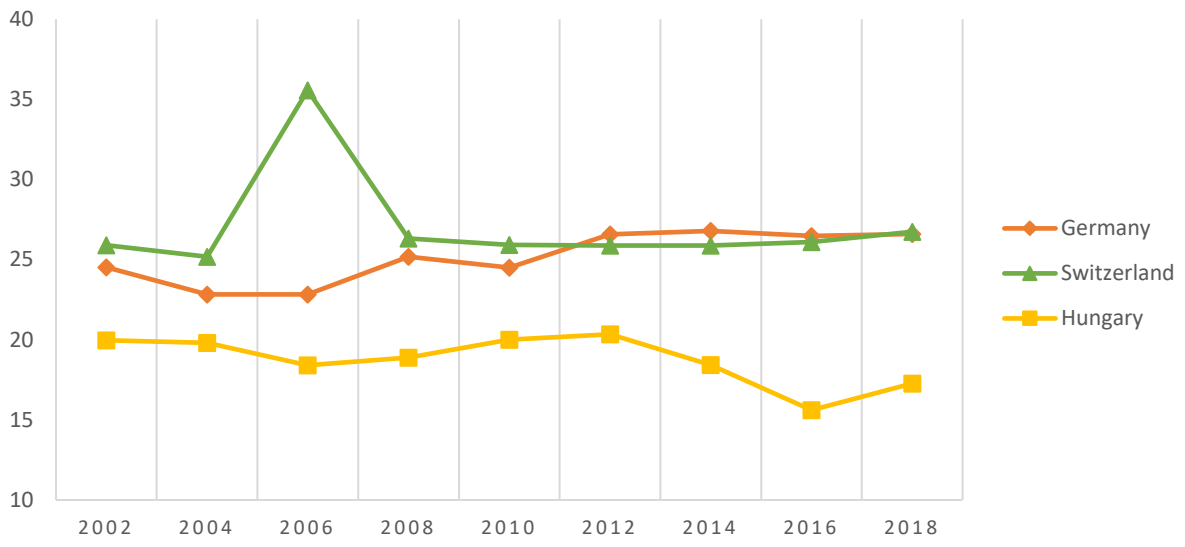
Table 4 Mean of perceived sentiments towards foreigners per country and year[a]

	2002	2004	2006	2008	2010	2012	2014	2016	2018	Mean
Austria	23.50	22.34	21.77				21.97	20.81	22.09	22.08
Belgium	22.52	22.15	23.07	23.66	22.40	22.97	22.81	24.55	25.23	23.26
Bulgaria			26.11	25.28	25.54	24.23			18.62	23.96
Czechia	20.89	20.00		20.13	18.87	19.31	17.88	17.42	17.61	19.01
Denmark	24.02	23.99	25.50	25.27	25.44	25.70	24.69			24.95
Estonia		19.68	20.69	21.25	21.61	22.86	22.63	21.06	22.01	21.47
Finland	25.38	24.88	25.47	25.99	24.60	25.88	25.36	26.05	26.33	25.55
France	22.69	21.91	22.11	22.98	22.16	22.20	22.61	23.33	24.15	22.68
Germany	24.53	22.83	22.83	25.19	24.51	26.58	26.79	26.47	26.59	25.14
Hungary	19.97	19.80	18.41	18.88	20.00	20.34	18.43	15.61	17.27	18.75
Italy	23.40					23.46		19.42	21.11	21.85
Lithuania					23.01	23.46	23.34	22.02		22.96
Netherlands	23.25	22.79	23.79	24.74	24.41	24.87	24.31	25.29	25.78	24.36
Norway	24.26	24.09	24.88	25.56	25.26	26.42	25.95	26.28	27.39	25.57
Poland	23.97	24.75	26.92	26.87	26.67	27.20		23.58	24.21	25.52
Slovakia		22.23	23.13	22.03	21.07	19.93				21.68
Slovenia	21.84	21.61	21.74	22.05	21.32	22.85	22.17	21.07	21.51	21.80
Switzerland	25.89	25.18	35.57	26.31	25.91	25.88	25.87	26.09	26.73	25.94
United Kingdom	21.63	21.98	21.18	21.67	21.34	21.54	22.13	25.49	26.37	22.59
Mean	23.18	22.51	23.32	23.62	23.18	23.64	23.13	22.78	23.31	23.19

a) Calculations based on sum of 6 questions in ESS, range 3-42 for individuals
b) N = 145, standard deviation = 2.47, minimum = 15.61, maximum = 27.39, missing values N = 26
c) Source: European Social Survey, own calculations

The table above illustrates the change in the mean of the measure over the years. The table indicates that the overall mean of perceived sentiments towards foreigners slightly changes between the years, although increase and decrease tend to alternate. One could state that there is no specific trend visible. Whereas some countries have a relatively low mean for perceived sentiments towards foreigners, like Hungary (mean = 18.75), other countries have a relatively high mean, like Switzerland (mean = 25.94). In addition, dividing those relatively low and high means do not indicate that there is a specific pattern or trend according to the dynamics of perceived sentiments towards foreigners over time. This is more evident looking at the figure below, which provides the mean of the measure for the three countries Germany, Switzerland, and Hungary. The reason for the distinguishing these three countries is that over time, Switzerland represents relatively positive sentiments towards foreigners, Hungary relatively negative sentiments towards foreigners and Germany remains around the mean.

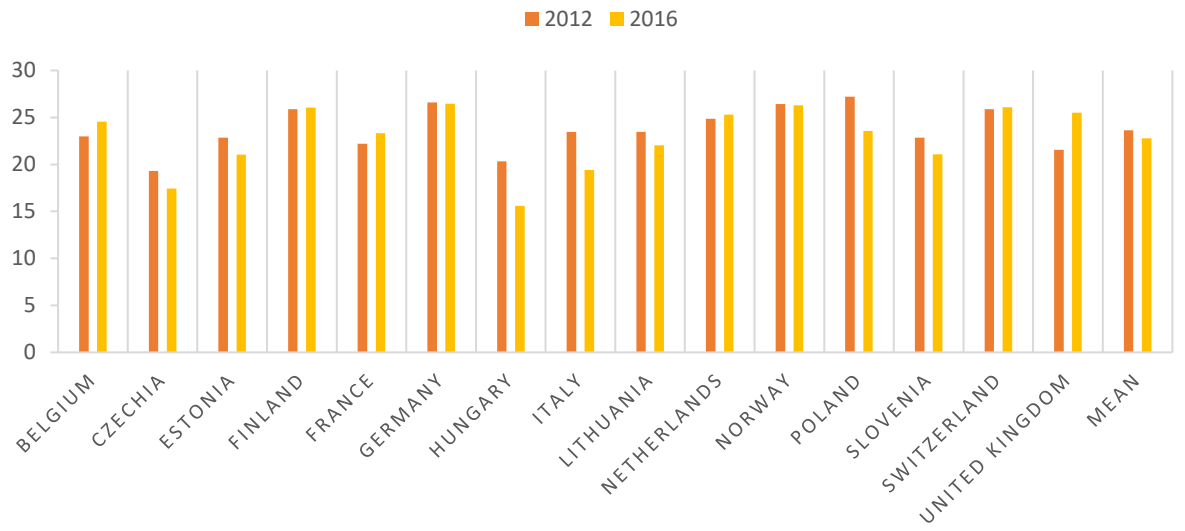
Figure 6 Mean of perceived sentiments towards foreigners for Germany, Switzerland, and Hungary, 2002-2018



a) Source: European Social Survey, own calculations

From the figure above, it seems as if there is no general trend over time when it comes to the mean of perceived sentiments towards foreigners in Germany, in like manner in Switzerland (except for 2006) and Hungary. One could state that the mean of perceived sentiments towards foreigners stays relatively stable over time, whereas Hungary decreases in the measure between 2012 and 2016 and Germany and Switzerland increase a little in the measure during that time. This implies that Hungary shifts from positive to negative perceived sentiments towards foreigners, whereas Germany and Switzerland shift from negative to positive perceived sentiments towards foreigners. Applying the same approach as with immigrant group size, the figure below presents the mean of perceived sentiments towards foreigners in 2012 and 2016, to compare before and after the migration crisis.

Figure 7 Mean of perceived sentiments towards foreigners per country 2012 and 2016



a) Source: European Social Survey, own calculations
b) Austria, Bulgaria, Denmark, and Slovakia not included in the figure because of missing data

The figure indicates that some countries tend to have relatively more positive perceived sentiments towards foreigners in 2016 in comparison with 2012 (United Kingdom, Belgium, France) although the majority of the countries tend to have less positive perceived sentiments towards foreigners, as the score of the measure is lower in 2016 than in 2012.

4.1.3 PRR voting

PRR voting is included in this study as a variable stating the percentage of PRR votes as compared with all the votes in a country during a year in percentages, measured in a representative ESS sample of approximately N = 1500 per country. In table 5, these percentages are presented per country and year.

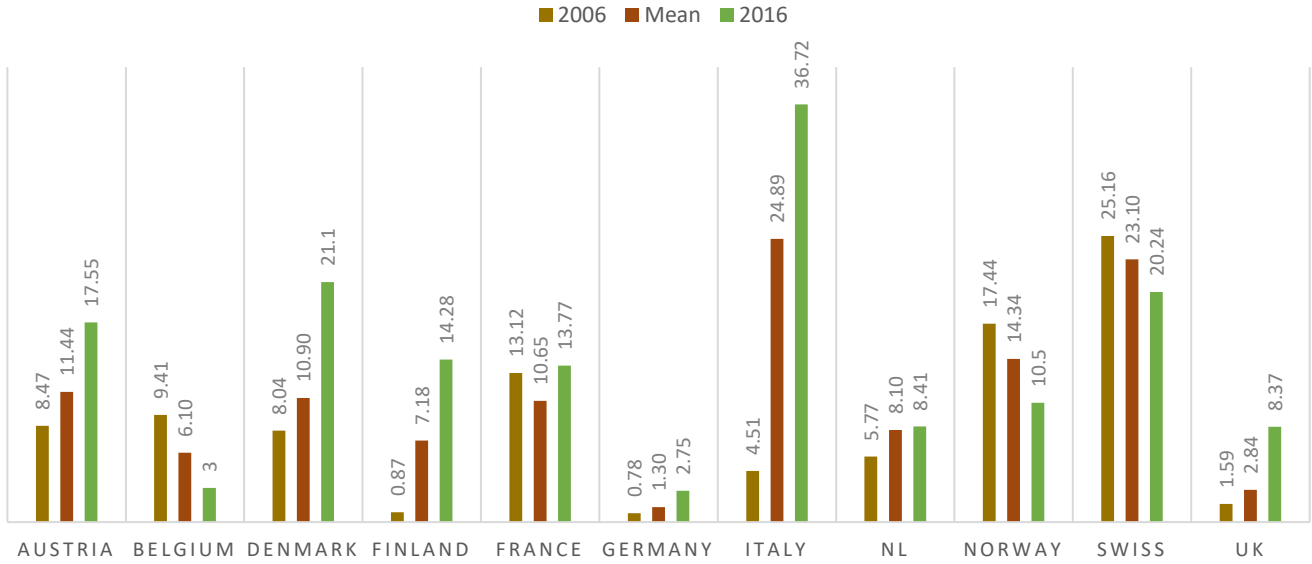
Table 5 PRR voting per country and year, in %[a]

	2002	2004	2006	2008	2010	2012	2014	2016	2018	Mean
Austria	5.25	4.88	8.47				15.02	17.55	17.49	11.44
Belgium	7.01	11.50	9.41	7.97	5.58	4.12	3.46	3.00	2.88	6.10
Bulgaria			9.04	8.30	4.61	4.63	11.8		8.42	7.80
Czechia	0.19	0.54					32.06	31.69	35.73	20.04
Denmark	8.27	8.28	8.04	9.59	10.99	8.82	12.13	21.1		10.90
Estonia	7.3	8.63	9.97	15.25	15.61	15.93	16.91	17.56	16.51	13.74
Finland	0.33	0.92	0.87	3.88	5.76	13.48	13.90	14.28	11.20	7.18
France	10.14	11.05	13.12	3.00	5.98	12.69	13.08	13.77	13.02	10.65
Germany	0.36	0.85	0.78	0.74	0.87	0.83	3.25	2.75	1.26	1.30
Hungary	1.39	0.75	49.38	54.97	75.07	70.49	67.25	78.70	69.57	51.95
Italy	2.13		4.51	10.75		25.37	31.95	36.72	62.83	24.89
Lithuania	9.77				29.18	24.68	23.09	25.55		22.45
Netherlands	15.91	3.28	5.77	4.51	13.53	6.46	8.27	8.41	6.80	8.10
Norway	15.84	14.96	17.44	15.77	15.56	11.23	12.56	10.50	15.20	14.34
Poland	19.12	26.80	56.21	34.41	35.72	33.29	36.10	57.69	53.35	39.19
Slovakia	24.79	25.11	50.81	54.45	49.56	48.66		36.92	21.45	38.97
Slovenia	16.13	42.11	4.63	32.26	34.06	26.24	21.57	28.00	33.49	26.50
Switzerland	19.81	29.32	25.16	25.12	24.84	18.70	20.71	20.24	23.97	23.10
United Kingdom	0.59	0.30	1.59	0.79	0.45	1.20	8.18	8.37	4.07	2.83
Mean	9.13	11.83	16.19	17.61	20.46	19.22	19.52	24.04	23.37	17.97

a) Calculations based on ESS voting questions, see methodological appendix for PRR classification
b) N = 152, standard deviation = 17.30, minimum = 0.19, maximum = 78.70, missing values N = 18
c) Source: European Social Survey, own calculations

This table is revealing in many ways. First, the mean over the years indicates that PRR voting has increased, from 9.13% of all votes in 2002 to 23.37% in 2018. A significant contributor of this change is for example Hungary, where the PRR voting took a substantial growth comparing 2004 (0.75%) with 2018 (69.57%). In contrast, PRR voting in the Netherlands seems to decrease over time, with 15.91% PRR voting in 2002 and 6.80% in 2018. As PRR voting is dependent of the availability of a PRR party, which differs in each of the studied countries, it is more revealing to present figures in which the mean of PRR voting for each country is presented. To compare before and after the migration crisis, information for 2006 and 2016 is presented. For Western European countries, this information is provided in the figure below.

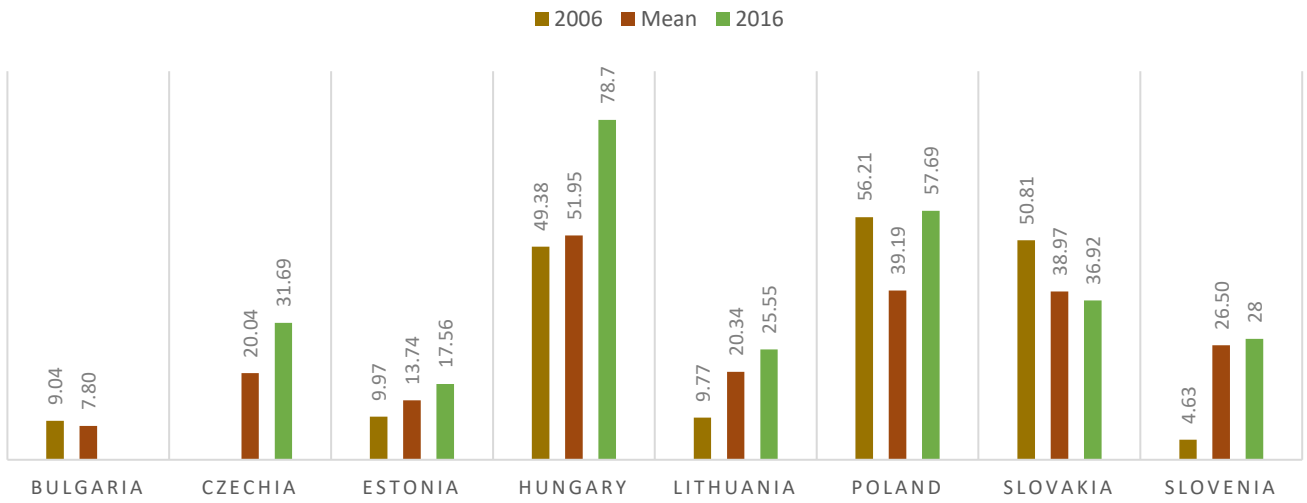
Figure 8 PRR voting in West-Europe 2006, mean, and 2016, in %



a) Source: European Social Survey, own calculations
b) NL = Netherlands, Swiss = Switzerland, UK = United Kingdom

The figure indicates that Austria, Denmark, Finland, France, Germany, Italy, the Netherlands, and the United Kingdom have a higher percentage of PRR voting in 2016 compared to their mean over the period 2002-2018. Belgium, Norway, and Switzerland have a lower percentage of PRR votes compared to their means and compared with 2006. This is interesting, as those three countries experience a decrease of PRR votes over time, while the other countries experience a substantial increase. For example, the United Kingdom experiences an increase in PRR votes from 1.59% in 2006 until 8.37% in 2016. However, it should be noted that Norway experiences an increase in PRR votes in 2018 (15.20%), which is higher than the mean of 14.34%. This applies to Switzerland as well (23.97% in 2018). The same figure is presented below for the Eastern European countries.

Figure 9 PRR voting in East-Europe 2006, mean, and 2016, in %



a) Source: European Social Survey, own calculations
b) Missing data for Bulgaria (2016) and Czechia (2006)

This figure indicates that Czechia, Estonia, Hungary, Lithuania, Poland, and Slovenia have a higher percentage of PRR votes in 2016 compared to their means. This is also the case for Bulgaria (not

illustrated in the figure), as the percentage of PRR votes is 8.42% in 2018. For Slovakia, a different trend is demonstrated, as the percentage of PRR votes is lower in 2016 than its mean and in 2006.

4.2 Bivariate statistics

The association between the variables can mathematically presented with the use of correlations. In the table below, the correlations between the three main variables are presented.

Table 6 Correlations

	PRR voting[b]	Immigrant group size[c]
Perceived sentiments towards foreigners[a]	-0.27***	0.32***
Immigrant group size[c]	-0.21**	

a) Measured as the mean of perceived sentiments per country and year. Substituting this measure with median, 25% or 75% percentile provides approximately the same size and direction of the associations.

b) Measured as the percentage of PRR voting, used in square root for the normality assumption.

c) Measured as the percentage of immigrants, used in square root for the normality assumption. Substituting this measure with crude number of immigrants or share of immigrants provides approximately the same size and direction of the associations.

d) **95% significance level ($p < 0.05$), ***99% significance level ($p < 0.01$)

The table indicates that there is a negative significant association between perceived sentiments towards foreigners and PRR voting ($r = -0.27$, $p < 0.01$). This implies that higher values of PRR voting are associated with lower scores for perceived sentiments towards foreigners, which means more negative attitudes instead of positive ones. Second, the association between immigrant group size and perceived sentiments towards foreigners is positive and statistically significant ($r = 0.32$, $p < 0.01$). This implies that higher values of immigrant group size are associated with higher scores in perceived sentiments towards foreigners, which means more positive attitudes towards foreigners. This result is somewhat counterintuitive considering some of the theories of this relationship. The analyses below will clarify this result. Third, the association between PRR voting and immigrant group size is negative and statistically significant ($r = -0.21$, $p < 0.05$). This implies that higher values of immigrant group size are associated with lower values of PRR voting. Moreover, this result is somewhat counterintuitive considering literature and theories, although the analyses below shine a different light on this result. In the results appendix, these relationships are presented in the form of scatterplots.

4.3 Preliminary conclusion

This paragraph ends with the notion that some substantial changes over time have occurred regarding immigrant group size, perceived sentiments towards foreigners and PRR voting. First, immigrant group sizes have increased over time, although this does not apply for each of the included countries. Additionally, the changes in immigrant group size seem to be subtle and not as massive as the concept of the migration crisis would suggest. Second, perceived sentiments towards foreigners have not changed substantially over time, although comparing 2012 with 2016 indicates that more negative perceived sentiments towards foreigners replaced positive ones in most of the countries. Third, PRR voting differs to high extent between the countries and over time on average an increase in PRR voting is visible. Apart from a few countries, almost all countries have a higher percentage of PRR votes in 2016 compared to 200. Lastly, the bivariate analyses indicate a counterintuitive result, as immigrant group size and perceived sentiments towards foreigners are positively related, while PRR voting and immigrant group size are negatively related. The remainder of this chapter will examine these changes in and relationships between immigrant group size, perceived sentiments towards foreigners and PRR voting further.

4.4 Analyses

In this paragraph, the proposed hypotheses will be tested. In the first part, the relationship between PRR voting and immigrant group size will be further examined without looking into the different countries. In the second part, the role of perceived sentiments towards foreigners will be examined by including this variable and the interactions in the model, without looking into the distinct countries. The third part applies the modelling of the first two paragraphs to the distinct countries to conclude about what occurs with the dynamics within the countries. The same three countries as reported about before (Hungary, Switzerland, and Germany) serve as example countries. The analyses are performed with the use of panel models. This means that the data is set as panel data, that is, the countries represent the id-variables and these 19 panels move over a period of years between 2002 and 2018. This allows for further examination of changes over time while at the same time controlling for unobserved heterogeneity. The fixed effects version of panel regression is applied, as the main interest of this study are the dynamics within countries. The results appendix reports on the Hausman test which concludes the fixed effects regression to be preferred over the random effects regression.

4.4.1 Dynamic relationship between PRR voting and immigrant group size

The first hypothesis focuses on the relationship between PRR voting and immigrant group size. Three opposing hypotheses are formulated based on the group threat theory, intergroup contact theory and fear of small numbers theory. In table 7, model 1 and 2 are estimated using fixed-effects linear models.

Table 7 Regression results of fixed effects models, model 1 and 2

Dependent variable: PRR voting (in %)	(1)	(2)
Immigrant group size (in %)	8.09 (4.27)*	27.47 (9.66)**
Immigrant group size^2 (in %)		-10.94 (4.91)**
Control variables		
Gini (0-100)	1.21 (0.63)*	1.33 (0.62)**
Unemployment (in %)	-0.16 (0.40)	0.04 (0.40)
GDP (in %)	-0.01 (0.09)	-0.03 (0.09)
Constant	-19.86 (22.37)	-28.45 (22.39)
Country fixed effects	Yes	Yes
Observations	163	163
R^2	0.07	0.10

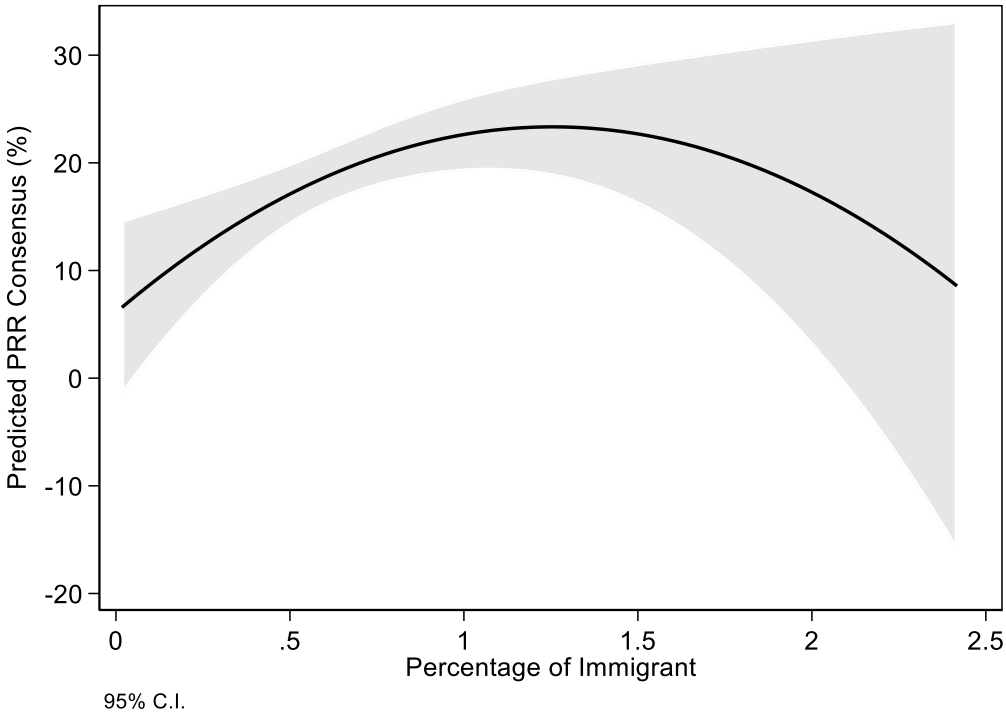
a) *90% significance level ($p < 0.10$), **95% significance level ($p < 0.05$), ***99% significance level ($p < 0.01$)

b) Notation of the table: β (standard error) significance level

c) Dummy variables included for missing values; complete table can be found in the results appendix.

Model 1 illustrates the simplest version of the model in which only immigrant group size is added as an explanatory variable alongside the three control variables. Model 1 indicates a positive relationship between immigrant group size and PRR voting ($\beta = 8.09$, $p < 0.10$). This implies that an increase in immigrant group size associated with an increase in PRR voting, while keeping all other variables constant. In model 2, the squared term of immigrant group size is added. The coefficients provide evidence for a curve-linear relationship: the non-squared term is positive ($\beta = 27.47$, $p < 0.05$) and the squared term is negative ($\beta = -10.94$, $p < 0.05$), keeping all else equal. The curve-linear relationship from model 2 becomes clearer when graphically stated, as illustrated in figure 10 below.

Figure 10 Dynamic relationship PRR voting and immigrant group size model 2



a) Source: Eurostat & European Social Survey, own calculations
b) Based on 'marginsplot' after model 2

The figure illustrates that the dynamic relationship between PRR voting and immigrant group size is curve-linear, providing evidence for hypothesis 3. The predicted trajectory of PRR voting as the percentage of immigrants increases follows an inverted U-shaped trajectory. The top of the figure indicates that the direction of the relationship changes at the percentage of immigrants of approximately 1.40%. Before this percentage, an increase in the percentage of immigrants is associated with an increase in PRR voting, while after this percentage, an increase in the percentage of immigrants is associated with a decrease in PRR voting.

Taking a further look into the control variables in model 2, it is indicated that the Gini coefficient has a significant effect on PRR voting, keeping all else equal ($\beta = 1.33$, $p < 0.05$). This implies that an increase in the Gini coefficient, which means more inequality, is associated with an increase in PRR voting. For unemployment and GDP, a non-significant and weak association with PRR voting is indicated, as the coefficients are approximately zero and not significant, both in model 1 and 2. Moreover, the R^2 indicates that model 2 has a better model fit than model 1.

4.4.2 Role of perceived sentiments towards foreigners

In table 8, the results from the models 1 to 6 are presented. Focusing first on the role of perceived sentiments towards foreigners in model 3, a significant negative relationship between perceived sentiments towards foreigners and PRR voting can be derived from the table ($\beta = -1.70$, $p < 0.05$). This implies that an increase in perceived sentiments towards foreigners, which means a relatively positive perception, is associated with a decrease in PRR voting, keeping all else equal. In model 4, immigrant group size is added. This model illustrates that there is a positive relationship between immigrant group size and PRR voting ($\beta = 8.37$, $p < 0.05$) and a negative relationship between perceived sentiments towards foreigners and PRR voting ($\beta = -1.63$, $p < 0.05$). This implies that higher values of immigrant group size are associated with higher values of PRR voting and higher values of perceived sentiments

towards foreigners are associated with lower values of PRR voting, when they are in presence of each other and keeping all else equal. In model 5, the squared term of immigrant group size is added, as in paragraph 4.4.1 is concluded that a curve-linear relationship exists between immigrant group size and PRR voting. The coefficients again provide evidence for this curve-linear relationship: the non-squared term is positive ($\beta = 26.07$, $p < 0.01$) and the squared term is negative ($\beta = -10.01$, $p < 0.05$), keeping all else equal. In model 5, perceived sentiments towards foreigners stays negative ($\beta = -1.49$, $p < 0.05$). From model 5, the preliminary indication is that perceived sentiments towards foreigners play a role in the relationship between immigrant group size and PRR voting. In the figure below the table, the relationship between immigrant group size and PRR voting is stated for three situations based on model 5: the perception of foreigners is relatively negative, medium, or relatively positive.

Table 8 Regression results of fixed effects models, model 1-6

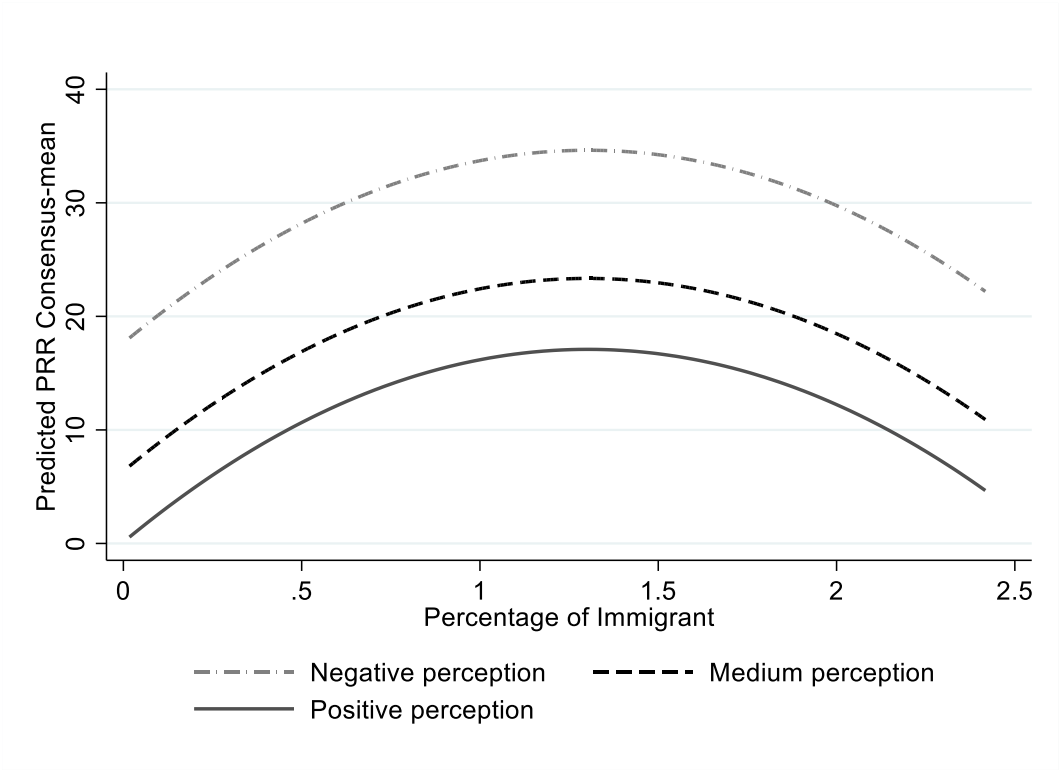
Dependent variable PRR voting in %	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant group size (in %)	8.09	27.47		8.37	26.07	207.31
	(4.27)*	(9.66)**		(4.21)**	(9.58)***	(83.61)**
Immigrant group size^2 (in %)		-10.94			-10.01	-131.42
		(4.91)**			(4.88)**	(52.28)**
Perceived sentiments towards foreigners			-1.70	-1.63	-1.49	0.67
			(0.70)**	(0.74)**	(0.73)**	(1.54)
Perceived sentiments towards foreigners x Immigrant group size						-7.21
						(3.39)**
Perceived sentiments towards foreigners x Immigrant group size^2						4.82
						(2.06)**
Control variables						
Gini (0-100)	1.21	1.33	0.45	1.01	1.13	1.08
	(0.63)*	(0.62)**	(0.53)	(0.63)	(0.62)*	(0.62)*
Unemployment (in %)	-0.16	0.04	-0.20	-0.13	0.04	0.13
	(0.40)	(0.40)	(0.35)	(0.39)	(0.40)	(0.40)
GDP (in %)	-0.01	-0.03	.01	-0.02	-0.03	-0.04
	(0.09)	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)
Constant	-19.86	-28.45	45.34	24.33	12.60	-39.22
	(22.37)	(22.39)	(27.50)	(29.81)	(30.02)	(43.54)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	163	163	171	163	163	163
Adjusted R^2	0.07	0.10	0.06	0.10	0.13	0.16

a) *90% significance level ($p < 0.10$), **95% significance level ($p < 0.05$), ***99% significance level ($p< 0.01$)

b) Notation of the table: β (standard error) significance level

c) Dummy variables included for missing values; complete table can be found in the results appendix

Figure 11 Dynamic relationship PRR voting and immigrant group size for three situations of perceived sentiments towards foreigners without interaction

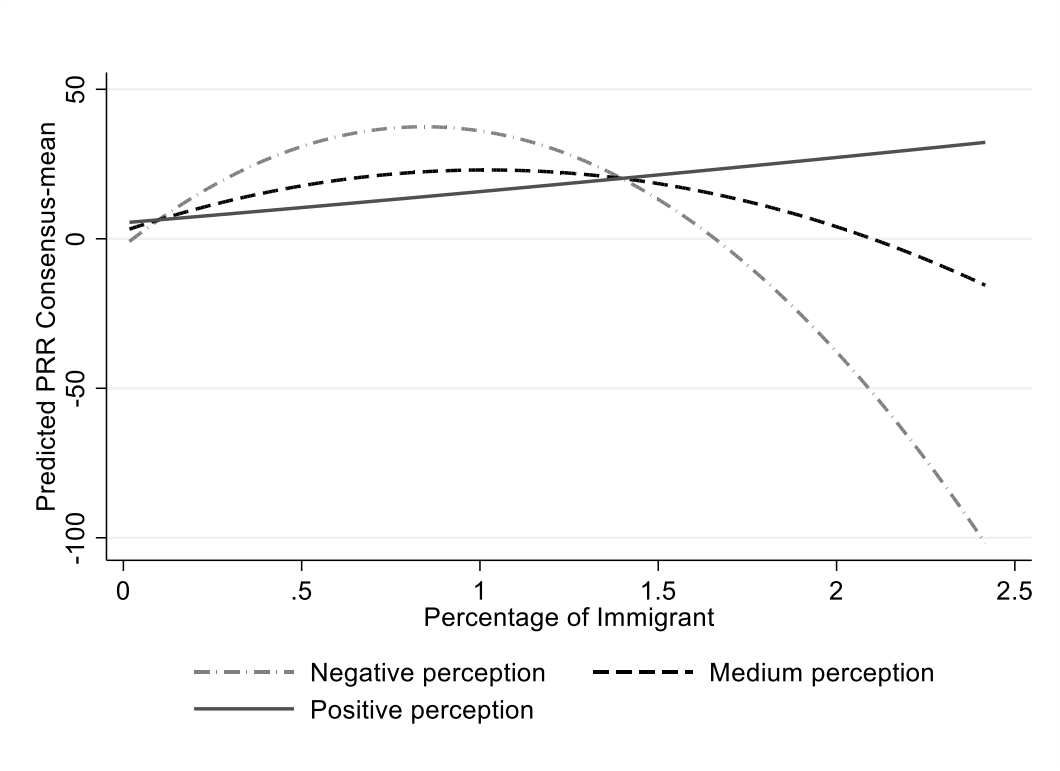


a) Source: Eurostat & European Social Survey, own calculations
b) Based on 'marginsplot' after model 5
c) Negative perception = 15.61, Medium perception = 23.19, Positive perception = 27.39

The figure indicates that in all three situations the dynamic relationship between immigrant group size and PRR voting is the same, which is curve-linear, although the line in the situation of relatively negative perception is above the two other lines, indicating more predicted PRR voting in general in comparison with a case of medium or positive perception. Moreover, in case of relatively positive perception, predicted PRR voting is less than in the case of medium perception. From model 3, 4, and 5 and the figure above can be concluded that with the inclusion of perceived sentiments towards foreigners the relationship between immigrant group size and PRR voting is still curve-linear, while perceived sentiments towards foreigners adds predictive power to the model as R^2 increases. This, besides theoretical arguments, allows for further examination of the moderator-effect of perceived sentiments towards foreigners.

Model 6 in table 8 states the full model with the interaction variables included. To start with, all the main coefficients are statistically significant, except for perceived sentiments towards foreigners. The two interaction variables indicate that the relationship between immigrant group size and PRR voting seems dependent of the level of perceived sentiments towards foreigners, as both the coefficients are statistically significant ($\beta = -7.21$, $p < 0.05$; $\beta = 4.82$, $p < 0.05$). Furthermore, shifting from model 5 to model 6 makes the main effect of perceived sentiments towards foreigners insignificant and positive instead of negative, indicating that there might be a cross-over interaction effect. This would imply that the effect of immigrant group size on PRR voting is highly dependent on the level of perceived sentiments towards foreigners and the direction of this effect might be different for distinct levels of perceived sentiments towards foreigners. Figure 12 below explores these relationships in the same way as performed after model 5.

Figure 12 Dynamic relationship PRR voting and immigrant group size for three situations of perceived sentiments towards foreigners with interaction variables



a) Source: Eurostat & European Social Survey, own calculations
b) Based on 'marginsplot' after model 6
c) Negative perception = 15.61, Medium perception = 23.19, Positive perception = 27.39

Figure 12 indicates that the dynamic relationship between PRR voting and immigrant group size differs for distinct levels of perceived sentiments towards foreigners. The line representing relatively negative perception has a curve-linear development in the relationship immigrant group size and predicted PRR voting. This implies that in case of relatively negative sentiments towards foreigners, PRR voting increases with an increase in immigrant group size, until a certain threshold, after which PRR voting declines while immigrant group size still increases. Comparing this figure with the figure of paragraph 4.4.1, it seems as if this threshold is now approximately 0.9% immigrant group size instead of 1.4% as predicted from model 2. The line representing relatively medium perception has a curve-linear development as well, although the line does not increase and decrease as steep as the negative perception line. Moreover, the range in which the predicted PRR voting moves is narrower compared with the negative perception line, indicating less effect of immigrant group size on PRR voting. Lastly, the line representing positive perception indicates the relationship between immigrant group size and PRR voting to be linear. This implies that an increase in immigrant group size goes along with an increase in PRR voting, which is somewhat counterintuitive. The figure illustrates two points at which the three lines develop in different directions: around 0.2% immigrants and 1.5% immigrants. It seems as if these are percentages of immigrants in which the level of perceived sentiments towards foreigners on average in a country matters to predict how the relationship between immigrant group size and PRR voting will continue. Furthermore, model 6 indicates that the level of perceived sentiments towards foreigners is changing the relationship between immigrant group size and PRR voting and therefore is a moderator in this relationship.

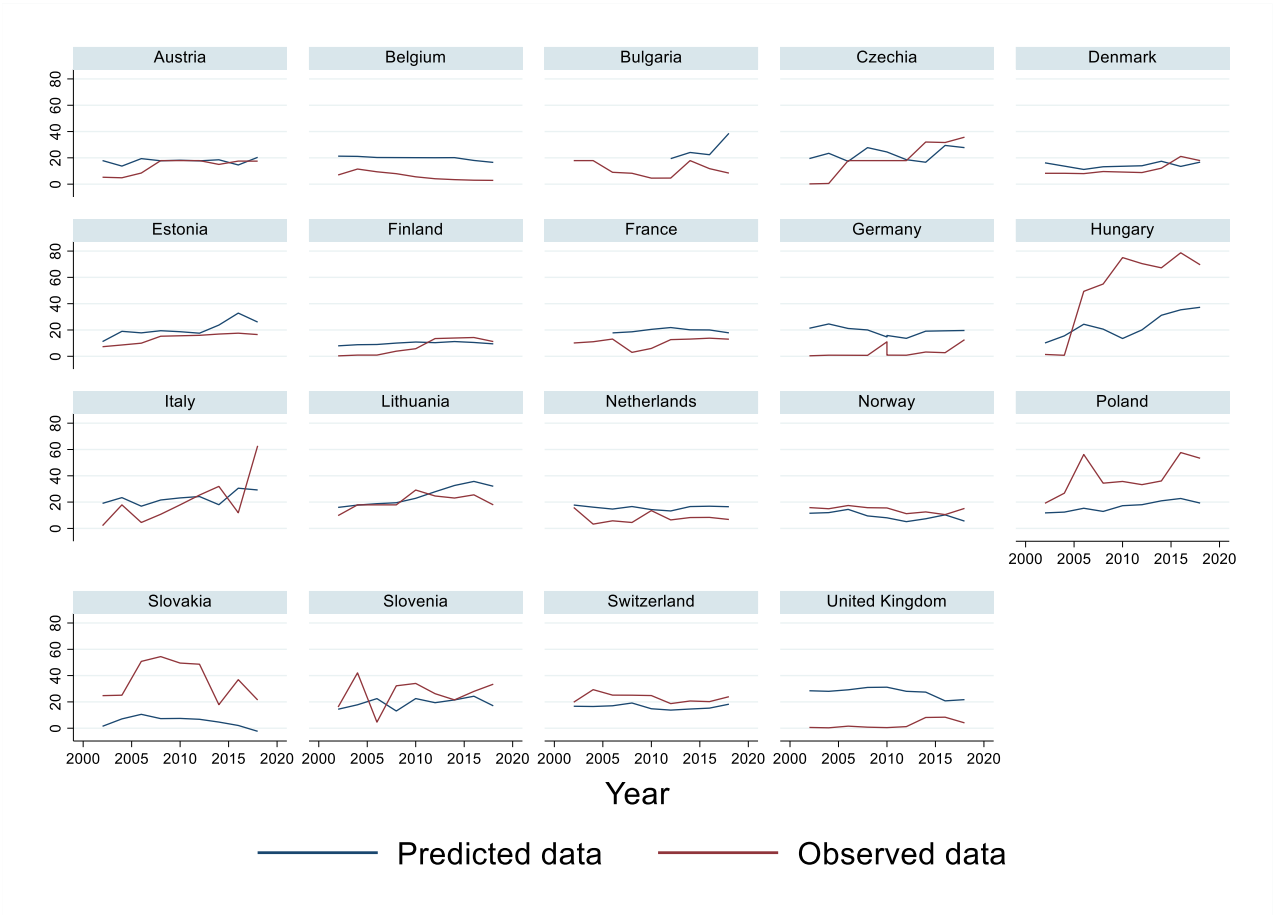
This paragraph ends with a small notion on the control variables, as the conclusion of paragraph 4.4.1 can be applied for model 3 to 6 as well. In model 3, 4, 5, and 6 for all control variables a non-

significant and weak association with PRR voting is illustrated, as the coefficients are approximately zero and not significant in most cases. Lastly, it is crucial to note that the control variables do not change in size and direction across all models, indicating a robust model according to the control variables. In the results appendix, the robustness checks for table 8 are presented.

4.5 Dynamics of countries

To take a closer look into the different countries that are included in the analyses and what happens within those countries, in figure 13 the predicted PRR voting after model 6 and observed PRR voting is presented for each of the countries over time.

Figure 13 Predicted and observed PRR voting for each country over time 2002-2018, in %



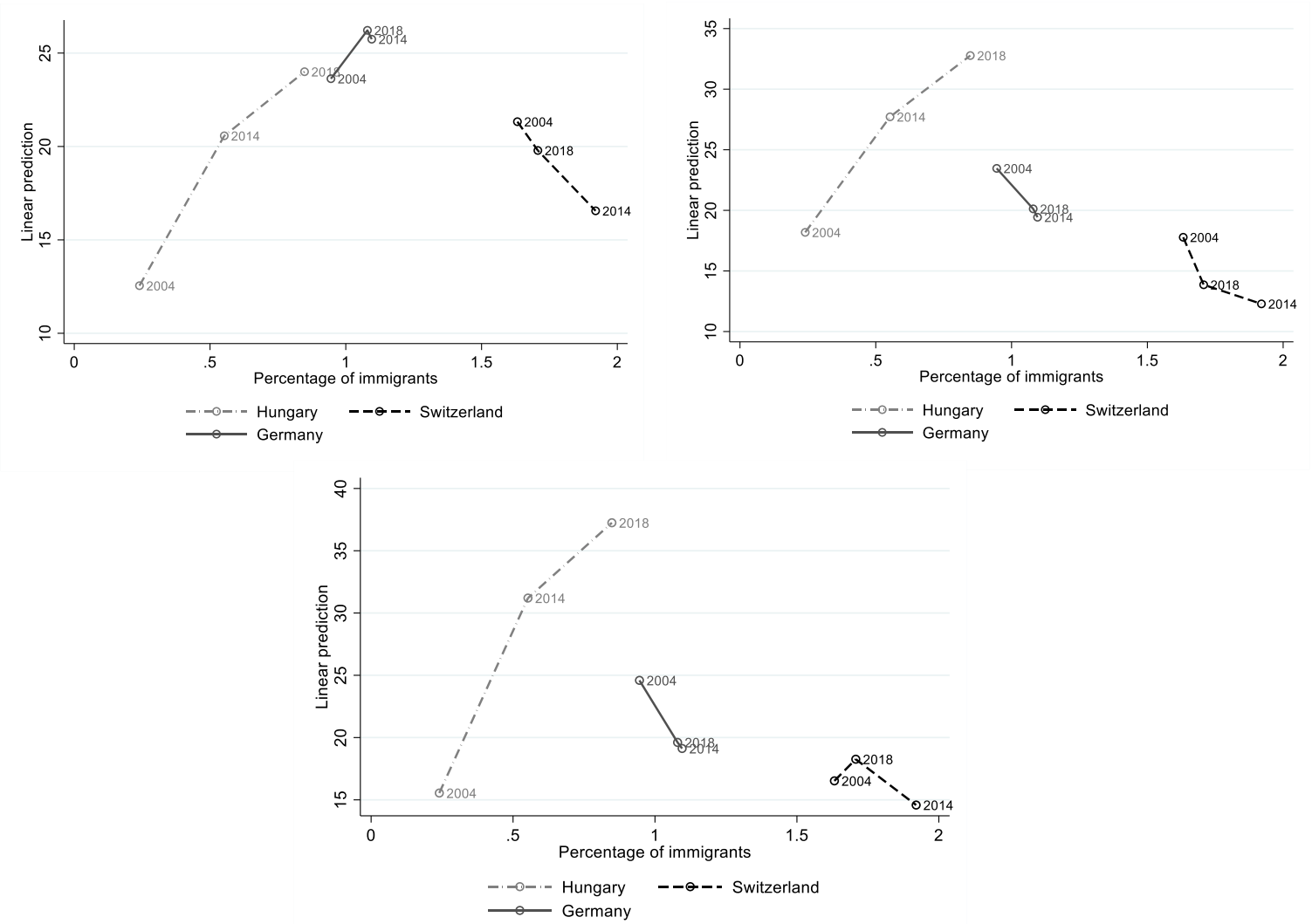
a) Source: Eurostat & European Social Survey, own calculations
b) Based on 'marginsplot' after model 6

The figure states that in some cases the model rightly predicts the dynamics of PRR voting over time. This can for example be derived from the figure of Austria, Denmark, Finland, France, the Netherlands, Norway, and Switzerland. The figure of Belgium, Germany, and United Kingdom demonstrates that the predicted PRR from the model is higher than the observed PRR over time. This could imply that in those countries other mechanisms are at work, so that immigrant group size and perceived sentiments towards foreigners alone do not explain PRR voting fully. In the case of Hungary, the model was not able to predict the sudden increase in PRR voting between 2005 and 2010. This applies to Italy as well, although the sudden increase in PRR voting at the end of the timeline made the model unable to predict considering the steadier increase in PRR voting between 2002 and 2014. Another interesting case is Bulgaria, as the model predicts that an increase in PRR voting should happen around 2016, while the

observed PRR voting indicates that the reverse happens. Even more remarkable is what occurs in Poland and Slovakia. The observed PRR voting is over time higher than the predicted PRR voting, indicating that the mechanisms from the model, such as the predictive power of immigrant group size and perceived sentiments towards foreigners, might not apply for those two countries. From these results, it seems as if the distinction between Western and Eastern Europe becomes relevant again. For most of the Western European countries, the model predicts relatively well, while for most of the Eastern European countries, the model does not predict that well. Lastly, to see what happens according to the migration crisis, the focus shifts towards the end of the figures. There it is demonstrated that the observed PRR voting increases during that time in some countries (Czechia, Germany, Italy, Norway, Slovenia, and Switzerland), while in most of those cases the predicted PRR voting did not increase. This might indicate that dynamics of immigrant group size alone are not the reason for increased PRR voting, but rather the perceived sentiments towards foreigners playing a role in subtle increased PRR voting, for example as a consequence of media framing.

The role of perceived sentiments towards foreigners becomes clearer when comparing the figures below, in which three countries with a relatively negative (Hungary), medium (Germany) and positive (Switzerland) perception are plotted after model 2, 5 and 6.

Figure 14 Dynamic relationship between predicted PRR voting and immigrant group size



a) Source: Eurostat & European Social Survey, own calculations

b) Based on model 2 (left panel above), model 5 (right panel above), and model 6 (panel below)

This figure illustrates some aspects when taking perceived sentiments towards foreigners into account, as done in the right panel of the figure above and the panel below. First, when perceived sentiments towards foreigners are relatively negative, as is the case in Hungary, PRR voting increases when immigrant group size increases and this relationship is more or less the same with or without considering perceived sentiments towards foreigners. Second, for a country with relatively medium perception such as Germany or relatively positive perception such as Switzerland, PRR voting is less dependent of immigrant group size as those lines do substantially descend in model 5 and 6 compared with model 2. Moreover, when only the immigrant group size is taken as an explanation for PRR voting, as done in model 2, the expectation is that Germany would increase in PRR voting over time when immigrant group size is increasing. The lines from the figure of model 5 and 6, considering perceived sentiments, indicate that this relationship is reverse: PRR voting will decrease with increasing immigrant group size. However, the line of Switzerland indicates that an increasing immigrant group size goes along with a decrease in PRR voting, although the model with the interaction (model 6) indicates that in that case 2018 would reveal another result according PRR voting. These results come across with the results of García and Charitopoulou (2017), indicating that the curve-linear relationship between immigrant group size and PRR voting only holds for a situation with relatively negative sentiments towards foreigners, in their study referred to as perceived threat. In other words, PRR voting becomes less dependent of immigrant group size when perceived sentiments towards foreigners are medium or relatively positive. Stated differently, the relationship between immigrant group size and PRR voting is curve-linear taking all countries together, while controlling for perceived sentiments towards foreigners. However, the relationship within the countries becomes positive linear (Hungary) or negative linear (Switzerland) when those perceptions are more pronounced compared with other countries which are medium in their perception (Germany).

5 Discussion

5.1 Conclusion of the current study

The present study is designed to determine what the role of perceived sentiments towards foreigners is in the relationship between PRR voting and immigrant group size. Previous studies found contradictory results and a systematic comparison between the three main theories about the relationship (group threat theory, intergroup contact theory and fear of small numbers theory) is not yet performed. An initial objective of the current study was to highlight the role of perceived sentiments towards foreigners, besides the objective of conducting a longitudinal approach to see what occurs over time, especially around the time of the so-called migration crisis. The results indicate that the fear of small numbers theory is gaining most support when taking all the 19 studied countries together. The relationship between immigrant group size and PRR voting over time between 2002 and 2018 can best be described as curve-linear, as an increase in immigrant group size is associated with an increase in PRR voting first and after a certain threshold, an increase in immigrant group size is associated with a decrease in PRR voting. This relationship is moderated by perceived sentiments towards foreigners, as the relationship between immigrant group size and PRR voting depends on the level of perceived sentiments towards foreigners. This finding is corroborated when examining the different countries, as countries with a relatively negative perception have an increase in PRR voting when immigrant group size is increasing, indicating a positive linear relationship between immigrant group size and PRR voting, referred to as the group threat theory. However, as there are no countries in the analysis in which the perception of foreigners is more negative than in the case of Hungary, it remains unclear whether the group threat theory applies to all countries in which the average perception towards foreigners is negative. A country with a relatively positive perception towards foreigners, such as Switzerland, demonstrates a reverse trend in the dynamics of immigrant group size and PRR voting. Therefore, a negative linear line, as the intergroup contact theory predicts, applies for a country with relatively positive perception towards foreigners. The pronouncement of those two countries demonstrates that perceived sentiments towards foreigners play a fundamental role in explaining the dynamics of immigrant group size and PRR voting. However, the change of direction in case of Germany, with relatively medium perception towards foreigners, indicates that some countries need further examination to determine whether their dynamics apply to the group threat theory, intergroup contact theory or the fear of small numbers theory. The research question of what the role of perceived sentiments towards foreigners in the relationship between immigrant group size and PRR voting is, might therefore be answered with essential enough to consider in future research. However, it must be noted that the distinction between the dynamics over all countries and within countries based on these results is fundamental as well and changes the answer to that question when applied to those distinct countries.

5.2 Discussion

The analyses of this study suffer from some limitations. The first limitation concerns the research to be carried out at the macro-level, rather than on a micro-level. This implies that the relationship between immigrant group size and PRR voting can be described as curve-linear only at the macro-level over all countries and as positive linear in a country as Hungary with a relatively negative perception. Although the conceptual framework as illustrated in the theoretical chapter demonstrates how these macro phenomena could affect the individual and its behaviour, it is not clear whether this is the case in this research. This is especially crucial to bear in mind when looking at the role of perceived sentiments towards foreigners. This measure is transformed to a macro-level variable by taking the mean of this measure in the sample for each country and in each wave and the descriptive results already indicate that the differences over time between those macro measures are relative small comparing with the

changes over time in immigrant group size and PRR voting. Therefore, the results according the moderating role of perceived sentiments towards foreigners must be addressed carefully. This limitation points to the question why the analyses are performed at the macro-level instead of conducting a multi-level analysis, which allows for individual- and country-level variation. The first reason for this choice is that the three theories of the relationship between immigrant group size and PRR voting and especially the fear of small numbers theory are macro theories in itself, as the theories do not strive for explaining individual behaviour. The inclusion of perceived sentiments towards foreigners allowed for an individual-level explanation, yet the number of countries included in the analysis is too little for performing a multi-level analysis. The second reason for this choice is the same as Arpino et al. (2015) touch upon in their discussion. The ESS is a repeated cross-sectional study and therefore it is not possible to match the outcomes of each wave to a unique individual. When the longitudinal panel approach of this study was performed as a multi-level analysis, allowing for individual variation, it was needed to have information on those unique individuals in each wave. The changes between the samples, although weights are used to control for the representativeness of the sample, imply that a longitudinal multi-level analysis was not an option.

The second limitation lies within the endless question of the definition of immigration, immigrant, and immigrant groups. In several of the aforementioned studies which included immigration, the question remains how to define immigrants. It is reasonable that there are differences between certain immigrant groups, such as Western immigrants versus non-Western immigrants, what for example is discovered by García and Charitopoulou (2017). Moreover, this is evident looking at some of the included PRR parties, who have adopted an anti-Islam ideology, rather than an anti-immigrant ideology. However, as the ESS asked questions about immigrants in general without knowing what the individuals had in mind regarding immigrant groups, it remains unclear how this mechanism would change the results. It is recommended for future research to perform this study while at the same time distinguishing for immigrant groups.

The third limitation of this study concerns the dependent variable PRR voting. The results may be somewhat limited by differences between countries regarding the party system. For example, in countries in which the system only works with two or three major political parties, the incentive to vote for a PRR party might be less than in a system in which there is a realistic chance of the party entering the government. Another source of uncertainty of this study stems from the countries which were not included in the study as a result of not having a PRR party in the country. Lastly, in some countries the major political parties tend to have a component of PRR, yet they are not identified as PRR. In this study, those countries are not included, so that is crucial to bear in mind that according to PRR voting, there could be possible bias in the results. This bias could be that the predicted trajectory of PRR voting over time is overestimated. However, the strength of this study is that the results do not limit itself to Western European countries, as some of the previous studies do. The inclusion of Eastern European countries made the results more generalizable for all countries in Europe.

5.3 Recommendations

The first recommendation for future research can be noticed in the aforementioned discussion regarding defining immigrants. The results from this study would benefit from distinguishing immigrant groups so that more in-depth knowledge about the mechanisms at work at the individual level could be revealed. Moreover, studying the effects at the individual level rather than at the country level in this study could clarify what happens at the individual level regarding perceived sentiments towards foreigners and subsequent voting behaviour. In that case, it is preferred to use a multi-level model, so that both the country and individual level can be considered. Lastly, the results indicate that there might be differences between Western and Eastern Europe regarding dynamics of immigrant group size and PRR voting, as previously is uncovered that PRR parties in Eastern Europe might fight other issues than

in Western Europe. Therefore, the results of this study might benefit from a distinction between perceived sentiments towards foreigners and a measure based on the main points of a PRR party in East Europe, such as fighting ethnic minorities already living in the country.

Appendices

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II Methodological appendix

I Weights

First, the dataset is weighted. This is done to correct for problems according to design of the sample and population. The first used weight is the design weight (DWEIGHT), which is needed to correct for probabilities of selection (ESS, 2020c). Using this weight will correct for the fact that some respondents or population groups have more chance of being selected for the survey. Mathematically, the design weight is computed as the inverse of inclusion probabilities, which is the probability of each person to be included into the sample (ESS, 2020c).

The second used weight is the population size weight (PWEIGHT). This weight must be used when data for two or more countries is combined, which is the case in this research. The purpose of this weight is to correct for the fact that countries have different population sizes but similar sample sizes (ESS, 2020). Mathematically, the population weight is computed as the population size aged 15 years and above / net sample size in countries*1000. These two weights are combined for this research to correct for these design and population biases. This command is used for this purpose.

*generate wgt=dweight*pweight*

This new weight is used in all commands when data from the original dataset of the ESS is collected, for example in tabulations.

II Variable perceived sentiments towards foreigners

In this part of the appendix, the reader can follow the steps in the process from the original variable in the ESS about perceived sentiments towards foreigners towards the creating of the macro-level variable.

Table 1 Original variables about immigration from the ESS

Group ESS standard variables, Politics		
Name	Label	Question
imsmetn	Allow many/few immigrants of same race/ethnic group as majority	**All rounds:** Now, using this card, to what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?
imdfetn	Allow many/few immigrants of different race/ethnic group from majority	**All rounds:** How about people of a different race or ethnic group from most [country] people?
impcntr	Allow many/few immigrants from poorer countries outside Europe	**All rounds:** How about people from the poorer countries outside Europe?
imbgeco	Immigration bad or good for country's economy	**All rounds:** Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?
imueclt	Country's cultural life undermined or enriched by immigrants	**All rounds:** And, using this card, would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries?
imwbcnt	Immigrants make country worse or better place to live	**All rounds:** Is [country] made a worse or a better place to live by people coming to live here from other countries?

Table 2 Descriptive statistics original variables

```
. summarize imbgeco imueclt imwbcnt imsmetn imdfetn impcntr [aw=wgt]
```

Variable	Obs	Weight	Mean	Std. Dev.	Min	Max
imbgeco	304,354	341127.182	4.817822	2.488445	0	10
imueclt	305,589	344113.007	5.223955	2.643256	0	10
imwbcnt	303,710	341885.025	4.636505	2.366136	0	10
imsmetn	309,720	346915.337	2.12535	.872624	1	4
imdfetn	309,075	345812.419	2.467137	.8950039	1	4
impcntr	307,607	343050.896	2.554824	.9236696	1	4

As three of the variables are coded the other way around, those variables must be recoded to have the same direction.

Recoding

sum imdfetn
tab imdfetn
tab imdfetn [aw=wgt]
generate imdfetn_recod=.
replace imdfetn_recod=4 if (imdfetn==1)
replace imdfetn_recod=3 if (imdfetn==2)
replace imdfetn_recod=2 if (imdfetn==3)
replace imdfetn_recod=1 if (imdfetn==4)
tab imdfetn_recod [aw=wgt]

tab imsmetn
generate imsmetn_recod=.
replace imsmetn_recod=4 if (imsmetn==1)
replace imsmetn_recod=3 if (imsmetn==2)
replace imsmetn_recod=2 if (imsmetn==3)
replace imsmetn_recod=1 if (imsmetn==4)
tab imsmetn_recod [aw=wgt]

tab impcntr
generate impcntr_recod=.
replace impcntr_recod=4 if (impcntr==1)
replace impcntr_recod=3 if (impcntr==2)
replace impcntr_recod=2 if (impcntr==3)
replace impcntr_recod=1 if (impcntr==4)
tab impcntr_recod [aw=wgt]

To see whether the original variables are related enough to make a new variable out of them, two things can be done. First, a reliability analysis shows the reliability coefficient. Second, a factor analysis shows whether the variables load on the same factor.

Reliability analysis

alpha imdfetn_recod impcntr_recod imsmetn_recod imbgeco imueclt imwbcnt

Table 3 Cronbach's alpha

```
. alpha imdfetn_recod impcntr_recod imsmetn_recod imbgeco imueclt imwbcnt

Test scale = mean(unstandardized items)

Average interitem covariance:     1.465602
Number of items in the scale:            6
Scale reliability coefficient:      0.8284
```

Factor analysis

factor imdfetn_recod impcntr_recod imsmetn_recod imbgeco imueclt imwbcnt [aw=wgt]

Table 4 Factor analysis

```
. factor imdfetn_recod impcntr_recod imsmetn_recod imbgeco imueclt imwbcnt [aw=wgt]
(sum of wgt is 312,703.291383926)
(obs=280,536)

Factor analysis/correlation                      Number of obs    =    280,536
    Method: principal factors                    Retained factors =          2
    Rotation: (unrotated)                        Number of params =         11
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.46071	2.97350	0.9718	0.9718
Factor2	0.48721	0.51966	0.1368	1.1086
Factor3	-0.03244	0.05662	-0.0091	1.0995
Factor4	-0.08906	0.03885	-0.0250	1.0745
Factor5	-0.12791	0.00958	-0.0359	1.0386
Factor6	-0.13748	.	-0.0386	1.0000

```
    LR test: independent vs. saturated:  chi2(15) = 1.0e+06 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Factor2	Uniqueness
imdfetn_re~d	0.8309	-0.3095	0.2138
impcntr_re~d	0.7861	-0.2406	0.3241
imsmetn_re~d	0.6792	-0.2916	0.4536
imbgeco	0.7361	0.2364	0.4023
imueclt	0.7501	0.3058	0.3439
imwbcnt	0.7658	0.3148	0.3144

As the output above shows, the six questions seem to relate enough to make one variable out of them. This is done by generating a new variable 'psentiments', indicating the total score of an individual by summing the six questions together.

Generate new variable

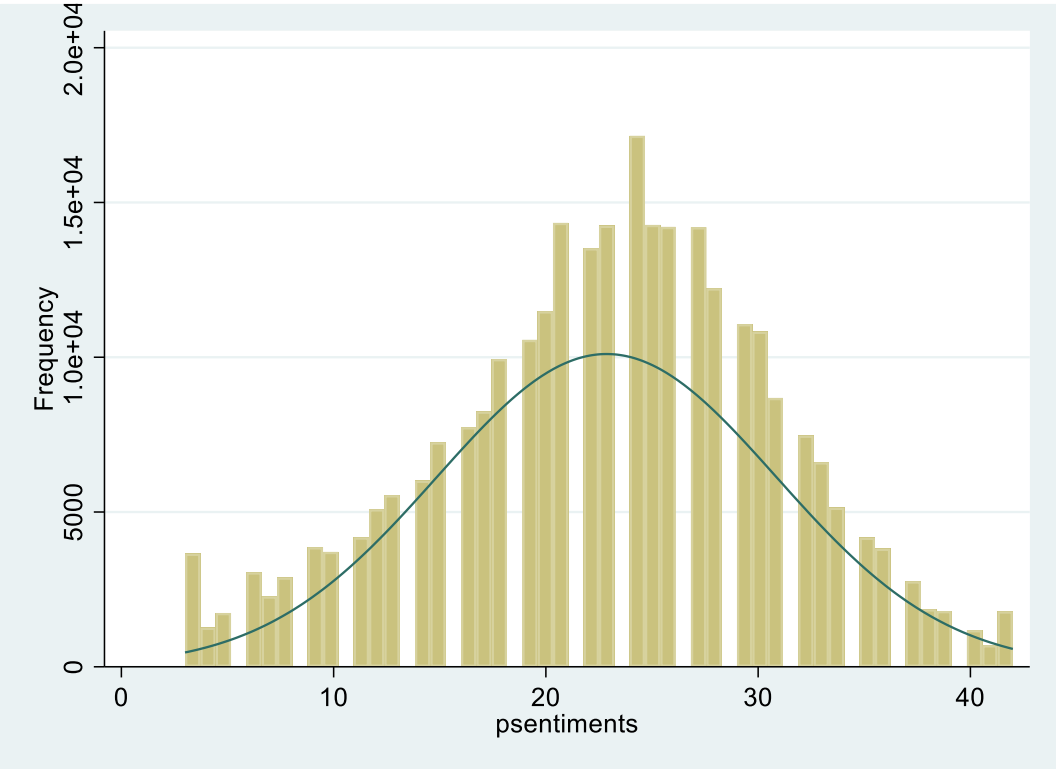
generate psentiments=(imdfetn_recod+impcntr_recod +imsmetn_recod + imbgeco + imueclt + imwbcnt)
tab psentiments [aw=wgt]
histogram psentiments, frequency normal

Table 5 Tabulation new variable ‘psentiments’

```
. tab psentiments [aw=wgt]
```

psentiments	Freq.	Percent	Cum.
3	4,488.92512	1.60	1.60
4	1,495.7115	0.53	2.13
5	2,181.4243	0.78	2.91
6	3,626.7625	1.29	4.20
7	2,655.25516	0.95	5.15
8	3,412.5031	1.22	6.37
9	4,416.794	1.57	7.94
10	3,900.8338	1.39	9.33
11	4,752.6774	1.69	11.03
12	5,486.4419	1.96	12.98
13	5,696.479	2.03	15.01
14	6,504.8763	2.32	17.33
15	7,394.90541	2.64	19.97
16	7,541.4893	2.69	22.65
17	8,229.4893	2.93	25.59
18	9,546.6963	3.40	28.99
19	10,136.078	3.61	32.60
20	10,864.074	3.87	36.48
21	13,495.1796	4.81	41.29
22	13,067.201	4.66	45.95
23	13,575.912	4.84	50.78
24	16,741.5219	5.97	56.75
25	13,586.849	4.84	61.60
26	13,634.463	4.86	66.46
27	13,656.187	4.87	71.32
28	11,528.9651	4.11	75.43
29	10,687.8115	3.81	79.24
30	10,468.258	3.73	82.97
31	8,493.81151	3.03	86.00
32	7,464.76663	2.66	88.66
33	6,514.3775	2.32	90.99
34	5,327.1754	1.90	92.88
35	4,446.1383	1.58	94.47
36	4,198.9145	1.50	95.97
37	2,932.8836	1.05	97.01
38	2,060.1502	0.73	97.75
39	2,100.0027	0.75	98.49
40	1,340.0317	0.48	98.97
41	787.9174077	0.28	99.25
42	2,096.0649	0.75	100.00
Total	280,536	100.00	

Figure 1 Histogram ‘psentiments’



The tabulation shows that the variable now ranges from 3 until 42. The histogram above shows that the variable is normally distributed. Now, the variable must be included in the macro dataset. This is done by taking 4 measures from ‘psentiments’, the mean, the median, the 25% and 75% percentile per country in each wave. Below the command used in STATA, an example is presented from one of those tabulations.

tab cntry
tabstat psentiments if essround==9 [aw=wgt], stats(p25 p75 median mean) by(cntry)

Table 6 Example macro-measures

Summary for variables: psentiments
by categories of: cntry (Country)

cntry	p25	p75	p50	mean
AT	17	28	22	22.09106
BE	21	30	26	25.23008
BG	12	24	19	18.61715
CH	23	31	27	26.72615
CY	15	24	20	19.51733
CZ	12	23	18	17.61273
DE	22	32	27	26.59004
EE	18	27	23	22.01288
FI	22	31	27	26.32778
FR	19	30	25	24.14814
GB	21	33	27	26.36841
HU	12	22	18	17.2694
IE	23	33	29	27.52448
IT	14	28	22	21.11363
NL	22	30	26	25.78361
NO	24	32	28	27.39226
PL	20	29	25	24.2095
RS	14	27	22	20.89774
SI	16	27	22	21.51188
Total	19	30	25	24.34278

III Variable PRR voting

To make a macro variable for PRR voting, first the table is presented which defines the PRR parties per country.

Table 7 Populist radical right parties per country

Country	Party name in English	Party name	Abbreviation
Austria	Alliance for the Future of Austria	Bündnis Zukunft Österreich	BZÖ
Austria	Freedom Party of Austria	Freiheitliche Partei Österreichs	FPÖ
Belgium	National Front	Front National	FN
Belgium	People's Party	Parti populaire	PP
Belgium	Flemish Interest	Vlaams Blok	VB
Bulgaria	Attack	Ataka	Ataka
Bulgaria	National Front for the Salvation of Bulgaria	Natsionalen Front za Spasenie na Balgariya	NFSB
Bulgaria	Order, Law and Justice	Red, zakonnost i spravedlivost	RZS
Bulgaria	IMRO - National Bulgarian Movement	VMRO – Balgarsko Natsionalno Dvizhenie	IMRO
Bulgaria	Will	Volya	Volya
Czech Republic	Freedom and Direct Democracy â€“ Tomio Okamura	Svoboda a prímá demokracie Tomio Okamura	SPD
Czech Republic	Dawn-National Coalition	Úsvit prímé demokracie	Dawn
Czech Republic	Action of Dissatisfied Citizens	Akce nespokojených obcanu	ANO
Czech Republic	Coalition for Republic â€“ Republican Party of Czechoslovakia	Sdruzení pro republiku – Republikánská strana Ceskoslovenska	SPR-RSC
Czech Republic	Right Bloc	Pravý blok	PB
Denmark	Danish People's Party	Dansk Folkeparti	DF
Denmark	Progress Party	Fremskridtspartiet	FrP
Estonia	Estonian Conservative People's Party	Eesti Konservatiivne Rahvaerakond	EKRE
Estonia	Estonian Independence Party	Eesti Iseseisvuspartei	EIP
Estonia	Res Publica	Erakond Res Publica	ERP
Finland	Finns Party	Suomen Maaseudun Puolue | Perussuomalaiset	Ps
France	Republic Arise | France Arise	Debout la république | Debout la France	DLR | DLF
France	National Front / Rally	Front national	FN / RN
France	Movement for France	Mouvement pour la France	MF
France	Rally for France	Rassemblement pour la France	RPF
France	National Republican Movement	Mouvement National Républicain	MNR
Germany	Alternative for Germany	Alternative für Deutschland	AfD
Germany	National Democratic Party of Germany	Nationaldemokratische Partei Deutschlands	NDP
Germany	The Republicans	Die Republikaner	REP

Hungary	Fidesz -- Hungarian Civic Party / Christian Democratic People's Party	Fidesz – Magyar Polgári Szövetség / Kereszténydemokrata Néppárt	Fi+KDNP
Hungary	Jobbik, the Movement for a Better Hungary	Jobbik Magyarországért Mozgalom	Jobbik
Hungary	Our Homeland Movement	Mi Hazánk Mozgalom	MH
Hungary	Hungarian Justice and Life Party	Magyar Igazság és Élet Pártja	HTJP
Italy	Tricolor Flame Social Movement	Fiamma Tricolore	MSFT
Italy	Brothers of Italy	Fratelli d'Italia – Centrodestra Nazionale	FdI
Italy	(Northern) League	Lega (Nord)	LN
Italy	Five Star Movement	Movimento 5 Stelle	M5S
Lithuania	Young Lithuania	Jaunoji Lietuva	JL
Lithuania	Order and Justice	Tvarka ir teisingumas – Liberalu Demokratu Partija	TT
Lithuania	Lithuanian People's Party	Lietuvos Liaudies Partija	LLP
Lithuania	Homeland Union – Lithuanian Christian Democrats	Tėvynės sąjunga – Lietuvos krikščionys demokratai	TS – LKD
Netherlands	Liveable Netherlands	Leefbaar Nederland	LN
Netherlands	Fortuyn List	Lijst Pim Fortuyn	LPF
Netherlands	Party for Freedom	Partij voor de Vrijheid	PVV
Norway	Progress Party	Fremskrittspartiet	FrP
Poland	Coalition for the Renewal of the Republic â€“ Liberty and Hope	Koalicja Odnowy Rzeczypospolitej Wolnosc i Nadzieja	KORWiN
Poland	Kukiz'15	Kukiz'15	Kukiz'15
Poland	League of Polish Families	Liga Polskich Rodzin	LPR
Poland	Self-Defence of the Republic Poland	Samoobrona Rzeczypospolitej Polskiej	SRP
Poland	Real Politics Union | Congress of the New Right	Unia Polityki Realnej | Kongres Nowej Prawicy	UPR | KNP
Poland	Law and Justice	Prawo i Sprawiedliwosc	PiS
Slovakia	Alliance of the New Citizen	Aliancia nového obcana	ANO
Slovakia	Slovak National Party	Slovenská národná strana	SNS
Slovakia	We are family	Sme Rodina – Boris Kollár	Smer
Slovenia	Slovenian Democratic Party	Slovenska Demokratska Stranka	SDS
Slovenia	Slovenian National Party	Slovenska nacionalna stranka	SNS
Slovenia	New Slovenia – Christian Democrats	Nova Slovenija – Krščanski demokrati	NSi
Switzerland	Automobile Party | Freedom Party of Switzerland	Auto-Partei | Freiheitspartei der Schweiz	FPS
Switzerland	Federal Democratic Union of Switzerland	Eidgenössisch-Demokratische Union – Union Démocratique Fédérale	EDU-UDF
Switzerland	Ticino League	Lega dei Ticinesi	LdT

Switzerland	Swiss People's Party	Schweizerische Volkspartei – Union Démocratique du Centre	PdA
United Kingdom	Democratic Unionist Party	Democratic Unionist Party	DUP
United Kingdom	United Kingdom Independence Party	United Kingdom Independence Party	UKIP
United Kingdom	British National Party	British National Party	BNP

To know how many votes each party got in each wave and country, the following example command in STATA is used.

**Austria*
**ESS round 1 and 2*
tab prtvtat if essround==2 [aw=wgt]
**ESS round 3*
tab prtvtaat [aw=wgt]
**ESS round 7 and 8*
tab prtvtbat if essround==8 [aw=wgt]
**ESS round 9*
tab prtvtcat [aw=wgt]

**Belgium*
**ESS round 1*
tab prtvtbe [aw=wgt]
**ESS round 2 and 3*
tab prtvtabe if essround==3 [aw=wgt]
**ESS round 4*
tab prtvtbbe [aw=wgt]
**ESS round 5, 6, 7, 8*
tab prtvtcbe if essround==8 [aw=wgt]
**ESS round 9*
tab prtvtdbe [aw=wgt]

This provided the tables and numbers so that the excel-file with the above parties could be filled in. The share of PRR parties was filled in, so for example number of votes for FPÖ/total number of votes. In case of more than one PRR party, these shares are summed. The excel-file is shown in the table below as an example.

Figure 2 Example of excel-file stating share of PRR votes

PRR (Populist, 2020)	ESS 1	ESS 2	ESS 3	ESS 4	ESS 5	ESS 6	ESS 7	ESS 8	ESS 9
FPÖ	0.055434	0.0548837	0.070348				0.139854	0.185322	0.176126
BZÖ (Bündnis Zukunft Österreich)			0.018911				0.011883	0.007413	
	0.055434	0.0548837	0.089259	0	0	0	0.151737	0.192735	0

After this, these shares are added to the macro-dataset by hand, for each country and year. This variable is called 'Share_PRR_voting' and has the following distribution.

Sum Share_PRR_Voting, d

Table 8 Macro variable Share_PRR_Voting

```
. sum Share_PRR_Voting, d

                      Share_PRR_Voting
-------------------------------------------------------------
      Percentiles      Smallest
 1%            0              0
 5%            0              0
10%            0              0       Obs                 162
25%     .0158846              0       Sum of Wgt.         162

50%     .1005753                      Mean           .1557069
                        Largest       Std. Dev.      .1763073
75%     .2156522       .6956841
90%     .3609505       .7048699       Variance       .0310843
95%      .549668       .7507229       Skewness       1.612006
99%     .7507229       .7870423       Kurtosis       5.213659
```

IV Missing values

In the macro-dataset, some of the values are missing. In table 9, the number of missing values is stated for the three main variables.

Table 9 Missing values for immigrant group size, PRR voting and perceived sentiments towards foreigners

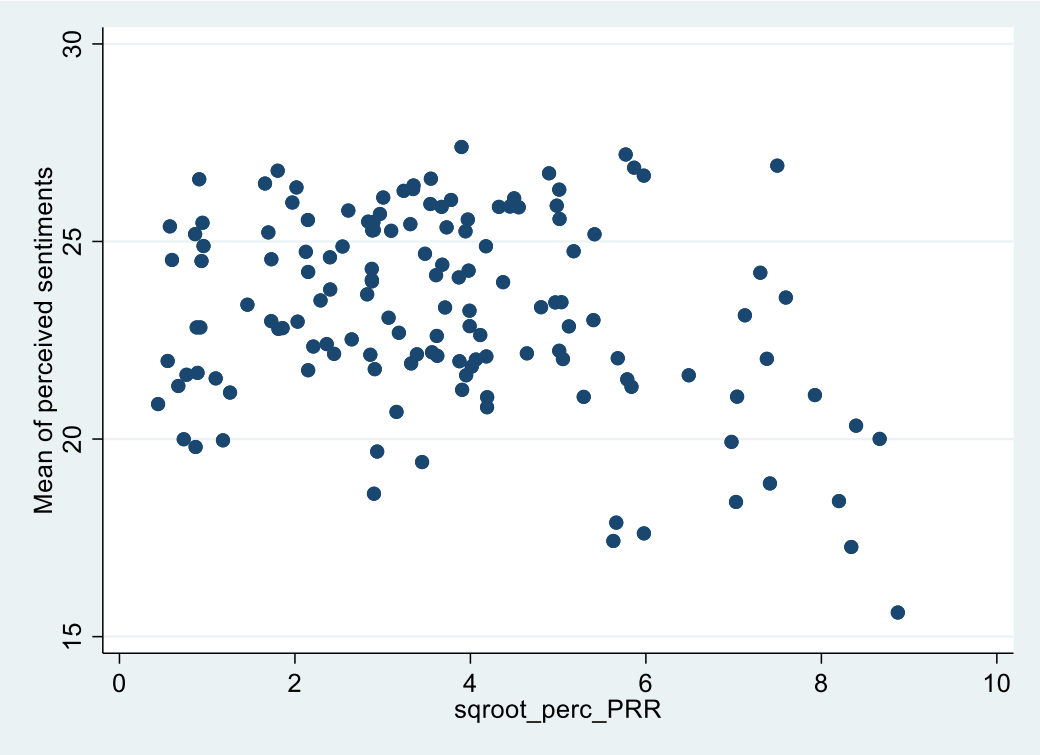
	N	Missing
Immigrant group size	171	8
Perceived sentiments towards foreigners	171	26
PRR voting	171	18

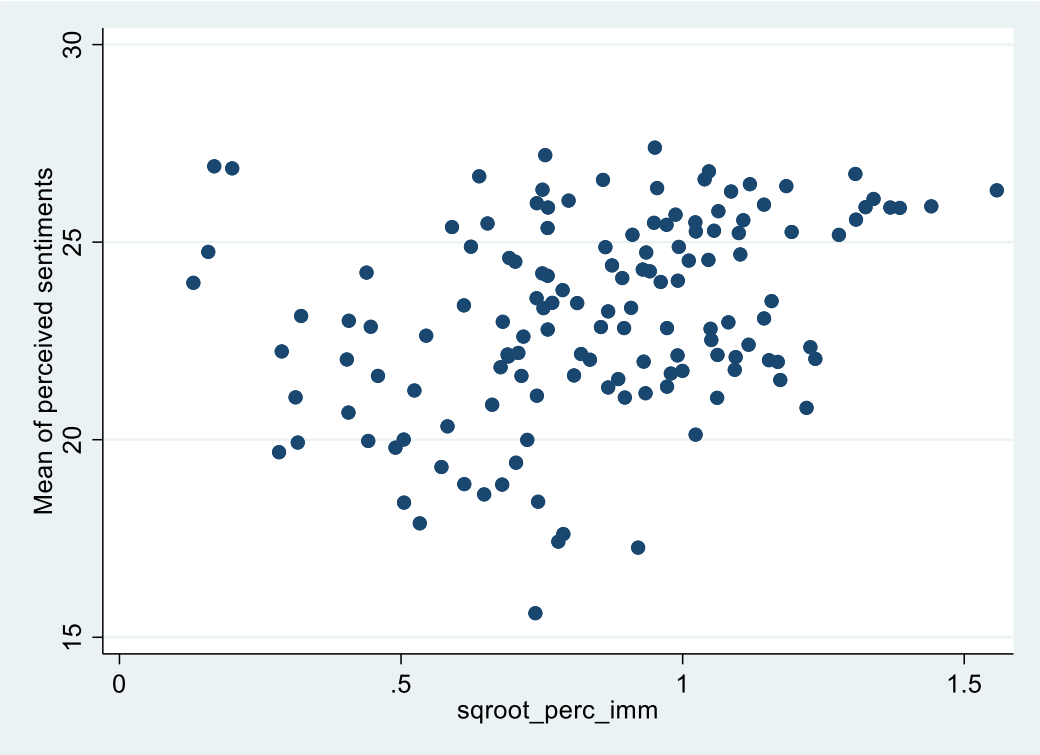
The main reason for the missing values is the fact that a country did not participate in one of the waves of the ESS so that for one wave for one of the selected countries, no information is provided on both PRR voting and perceived sentiments towards foreigners. It must be first noted that a missing value for PRR voting does not imply that there is a missing value for perceived sentiments towards foreigners, as in some waves the questions on voting did not include a PRR party. Several solutions for working with these missing values exist. First, secondary data sources can be used for solving the missing values, although Eurostat does not provide other data on immigrant group size for those missing values in Belgium, Bulgaria, and France. Other data sources for perceived sentiments towards foreigners are not desirable, as the measure is specific for the ESS. Other data sources for PRR voting are brought to light when looking at other studies, such as Akkerman et al. (2016). For their data, they make use of Parliaments and Governments database (parlgov) of the University of Bremen (Döring & Manow, 2019). Comparing this dataset with the results from ESS reveal that the share of PRR votes highly relate to this dataset. This makes that this dataset is an additional data source for the share of PRR votes in a country. This is the reason for the difference in missing values between perceived sentiments towards foreigners and PRR voting.

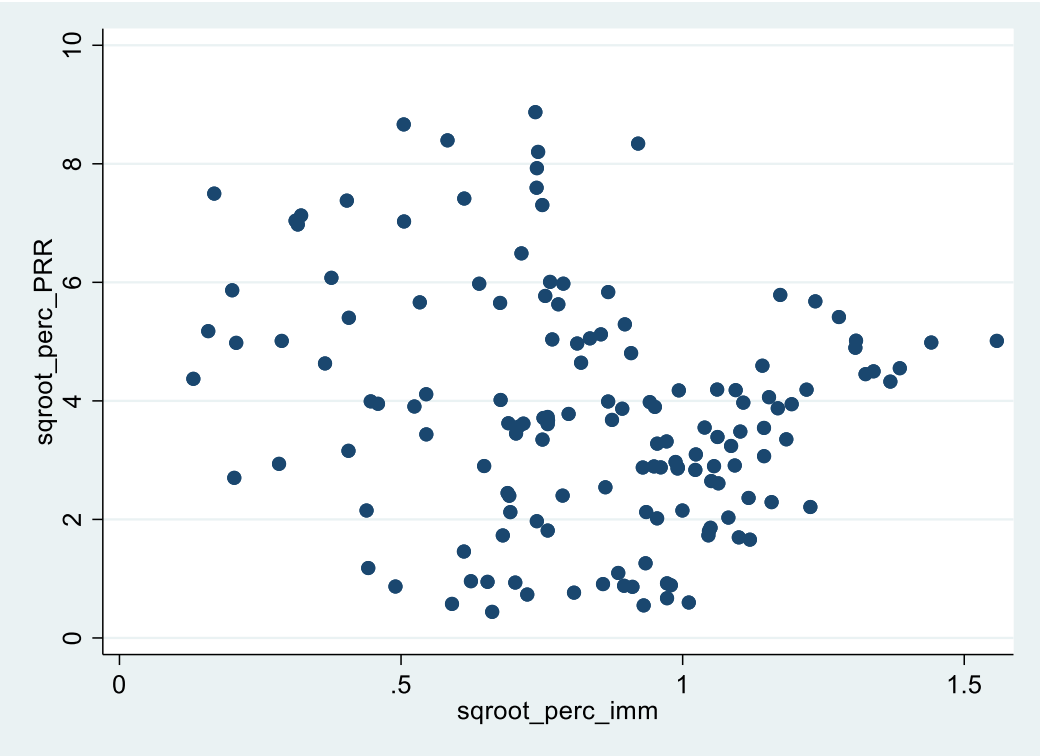
Another way of solving missing data issues is with the use of mean imputation (Schafer & Graham, 2002). This is an option for the measurements of perceived sentiments towards foreigners and the missing values for PRR voting, although this is not commonly preferred as this can lead to bias towards the mean during the modelling. However, as the N increases using mean imputation, the results reported in the results paragraph at the analysis part are based on the dataset where mean imputation has taken place. The reason for this choice is because the results did not alter substantially after mean imputation and the results are more reliable as those countries with missing values are included using mean imputation. Essential to keep in mind is therefore that the descriptive results are based on the results without mean imputation and the results from the analyses are from the dataset in which the perceived sentiments towards foreigners and PRR voting measures are mean imputed.

III Results appendix

I Scatterplots variables of the correlations table







These scatterplots indicate the relationship between the three main variables with two of them measured as the square root for normality assumptions. These scatterplots are backed by correlations as mentioned in paragraph 4.2.

II Preparation dataset for analyses

Declare panel data

xtset country_num year, yearly

```
. xtset country_num year, yearly
       panel variable:  country_num (strongly balanced)
        time variable:  year, 2002 to 2018, but with gaps
                delta:  1 year
```

First, the data is set to being panel data, so that the panel analysis can be performed.

Hausman test

quietly xtreg perc_PRR mean_psentiments perc_imm c.perc_imm#c.perc_imm c.perc_imm#c.mean_psentiments c.perc_imm#c.perc_imm#c.mean_psentiments Gini Unemployment GDP_capita_perc i.dummy_sent i.dummy_prr, fe
estimates store fixed2
quietly xtreg perc_PRR mean_psentiments perc_imm c.perc_imm#c.perc_imm c.perc_imm#c.mean_psentiments c.perc_imm#c.perc_imm#c.mean_psentiments Gini Unemployment GDP_capita_perc i.dummy_sent i.dummy_prr, re
estimates store random2
hausman fixed2 random2

	Coefficients (b) fixed2	(B) random2	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
mean_psent~s	.6662296	.1252184	.5410112	.4293019
perc_imm	207.3088	186.7735	20.53539	.
c.perc_imm#				
c.perc_imm	-131.4201	-127.1936	-4.226574	2.749689
c.perc_imm#				
c.				
mean_psent~s	-7.205374	-6.690412	-.5149613	.
c.perc_imm#				
c.perc_imm#				
c.				
mean_psent~s	4.815745	4.82562	-.0098749	.129204
Gini	1.076512	.1778076	.8987041	.3797688
Unemployment	.1258562	.1158768	.0099794	.0126325
GDP_capita~c	-.0436131	-.1000587	.0564455	.0738454
1.dummy_sent	-4.515914	-3.954285	-.5616291	.
1.dummy_prr	1.721505	1.666309	.0551961	.

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(10) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 23.84
Prob>chi2 = 0.0080
(V_b-V_B is not positive definite)

The Hausman test is used to determine whether the fixed-effects version or the random-effects version of the panel analysis is preferred. The output indicates that for both model 2 and model 6, the fixed effects version of the panel regression is preferred over the random effect version, as if $p < 0.05$ one prefers the fixed effects over the random effects. This is the case in both above tables.

Heteroskedasticity

xttest3

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (19)  =    3955.41
Prob>chi2 =      0.0000
```

The results of the test after model 2 for heteroskedasticity indicate that there is heteroskedasticity, as the null hypothesis is homoskedasticity and this is rejected based on the above figure. This also applies for model 6, as shown in the figure below.

```
. lrtest hetero2 ., df(`df')

Likelihood-ratio test                                 LR chi2(18) =    154.55
(Assumption: . nested in hetero2)                     Prob > chi2 =    0.0000
```

This means it would be best to control for this by adding 'robust' after the regressions so that robust standard errors are estimated. This does not affect the coefficients, but it does change the standard errors and therefore the significance of the coefficients. The reason for not continuing with these robust standard errors is the fact that there are too little panels (countries per year) to obtain significant results when correction for cluster is performed.

III Robustness checks

Robustness checks are performed after the modelling to see whether changes in the variables, changes in the modelling or without mean imputation change the results. First, the variable mean_psentiments is changed to median_psentiments and p25_psentiments below for model 6 only. In case one is interested in the results of the other models regarding robustness checks, the author can be contacted.

```
. xtreg perc_PRR median_psentiments perc_imm c.perc_imm#c.perc_imm c.perc_imm#c.median_psentiments c.perc_imm#c.perc_imm#c.median_psentiments Gini Une
> mployment GDP_capita_perc, fe

Fixed-effects (within) regression               Number of obs     =        136
Group variable: country_num                     Number of groups  =         19

R-sq:                                           Obs per group:
     within  = 0.1624                                         min =          2
     between = 0.1974                                         avg =        7.2
     overall = 0.0087                                         max =          9

                                                F(8,109)          =       2.64
corr(u_i, Xb)  = -0.4841                        Prob > F          =     0.0110
```

perc_PRR	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
median_psentiments	.6848152	1.775471	0.39	0.700	-2.83411	4.20374
perc_imm	211.1928	91.82498	2.30	0.023	29.19862	393.1869
c.perc_imm#c.perc_imm	-133.4211	57.75539	-2.31	0.023	-247.8904	-18.95179
c.perc_imm#c.median_psentiments	-7.019458	3.638995	-1.93	0.056	-14.23183	.1929119
c.perc_imm#c.perc_imm#c.median_psentiments	4.738078	2.204045	2.15	0.034	.3697339	9.106423
Gini	.8753967	.6832177	1.28	0.203	-.4787185	2.229512
Unemployment	.0153864	.4835938	0.03	0.975	-.9430807	.9738535
GDP_capita_perc	-.0075933	.092558	-0.08	0.935	-.1910403	.1758538
_cons	-40.52711	50.80254	-0.80	0.427	-141.2161	60.16189
sigma_u	17.629428					
sigma_e	10.741221					
rho	.72927781	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(18, 109) = 8.25                     Prob > F = 0.0000
```

```
. xtreg perc_PRR p25_psentiments perc_imm c.perc_imm#c.perc_imm c.perc_imm#c.p25_psentiments c.perc_imm#c.perc_imm#c.p25_psentiments Gini Unemployment
>  GDP_capita_perc, fe

Fixed-effects (within) regression               Number of obs     =        136
Group variable: country_num                     Number of groups  =         19

R-sq:                                           Obs per group:
     within  = 0.1853                                         min =          2
     between = 0.0330                                         avg =        7.2
     overall = 0.0100                                         max =          9

                                                F(8,109)          =       3.10
corr(u_i, Xb)  = -0.3532                        Prob > F          =     0.0035

------------------------------------------------------------------------------
                             perc_PRR |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------------------------------+----------------------------------------
                       p25_psentiments |   -.243121   1.420248    -0.17   0.864    -3.058007    2.571765
                             perc_imm |   136.1268   64.91853     2.10   0.038     7.460433    264.7933
                                      |
                  c.perc_imm#c.perc_imm |  -82.38756   41.21447    -2.00   0.048    -164.0733   -.7018146
                                      |
            c.perc_imm#c.p25_psentiments |  -5.253856    3.16422    -1.66   0.100    -11.52524    1.017525
                                      |
c.perc_imm#c.perc_imm#c.p25_psentiments |   3.497788   1.949332     1.79   0.076    -.3657244      7.3613
                                      |
                                 Gini |   .7686922   .6762115     1.14   0.258    -.5715371    2.108921
                         Unemployment |  -.1012494   .4731716    -0.21   0.831     -1.03906    .8365614
                       GDP_capita_perc |  -.0269958   .0909935    -0.30   0.767    -.2073419    .1533503
                                 _cons |  -11.72202   38.10718    -0.31   0.759    -87.24922    63.80518
-------------------------------------+----------------------------------------
                              sigma_u |  16.792902
                              sigma_e |  10.593427
                                  rho |   .7153365   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0: F(18, 109) = 8.32                     Prob > F = 0.0000
```

As can be derived from these graphs, copied directly from Stata, one can conclude that the coefficients do not change in size and direction compared with the models in the results paragraph. Second, as France, Belgium and Bulgaria have some missing values in the dependent variable PRR voting, the analyses are also performed without these three countries. The tables below show the results of these analyses, first for model 2 and second for model 6.

```
. xtreg perc_PRR perc_imm c.perc_imm#c.perc_imm Gini Unemployment GDP_capita_perc, fe

Fixed-effects (within) regression               Number of obs     =        128
Group variable: country_num                     Number of groups  =         16

R-sq:                                           Obs per group:
     within  = 0.1054                                         min =          4
     between = 0.2451                                         avg =        8.0
     overall = 0.0808                                         max =          9

                                                F(5,107)          =       2.52
corr(u_i, Xb)  = -0.6880                        Prob > F          =     0.0336

------------------------------------------------------------------------------
             perc_PRR |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------------+-------------------------------------------------------
             perc_imm |   30.94926   11.66078     2.65   0.009     7.833131    54.06539
                      |
c.perc_imm#c.perc_imm |  -11.29951   5.698604    -1.98   0.050    -22.59632    -.002688
                      |
                 Gini |   1.686646   .7415881     2.27   0.025     .2165335    3.156757
         Unemployment |   .0987929   .4852547     0.20   0.839     -.863168    1.060754
       GDP_capita_perc |   .0020553   .0988337     0.02   0.983     -.193871    .1979816
                 _cons |  -43.34166   26.83306    -1.62   0.109    -96.53507    9.851752
----------------------+-------------------------------------------------------
              sigma_u |  18.896428
              sigma_e |  11.680172
                  rho |  .72355415   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0: F(15, 107) = 8.04                     Prob > F = 0.0000
```

```
. xtreg perc_PRR mean_psentiments perc_imm c.perc_imm#c.perc_imm c.perc_imm#c.mean_psentiments c.perc_imm#c.perc_imm#c.mean_psentiments Gini Unemploym
> ent GDP_capita_perc, fe

Fixed-effects (within) regression               Number of obs     =        119
Group variable: country_num                     Number of groups  =         16

R-sq:                                           Obs per group:
     within  = 0.1754                                         min =          4
     between = 0.0666                                         avg =        7.4
     overall = 0.0007                                         max =          9

                                                F(8,95)           =       2.53
corr(u_i, Xb)  = -0.4183                        Prob > F          =     0.0155
```

perc_PRR	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
mean_psentiments	.5713925	1.93686	0.30	0.769	-3.273761	4.416546
perc_imm	221.9179	97.53923	2.28	0.025	28.27803	415.5577
c.perc_imm#c.perc_imm	-138.5574	62.39778	-2.22	0.029	-262.4327	-14.68216
c.perc_imm#c.mean_psentiments	-7.654259	3.933576	-1.95	0.055	-15.46339	.1548758
c.perc_imm#c.perc_imm#c.mean_psentiments	5.065843	2.434952	2.08	0.040	.2318531	9.899833
Gini	1.112639	.7596133	1.46	0.146	-.3953846	2.620662
Unemployment	-.1581022	.5177047	-0.31	0.761	-1.185876	.8696716
GDP_capita_perc	-.0208936	.0979156	-0.21	0.831	-.2152807	.1734935
_cons	-39.39334	53.18187	-0.74	0.461	-144.9727	66.18602
sigma_u	17.832608					
sigma_e	11.342671					
rho	.71195825	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(15, 95) = 7.84                      Prob > F = 0.0000
```

From these models, the same conclusion can be derived, as the size and the direction of the coefficients did not change significantly compared with the tables in the results paragraph. Lastly, the models are also estimated without mean imputation. The results of this analysis can be found in the figure below for all the 6 models.

Dependent variable: PRR voting	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant group size (in %)	10.34895 (4.891655)**	30.89681 (10.9312)***		10.0277 (4.999206)**	28.32354 (11.31128)**	230.8444 (91.51373)**
Immigrant group size^2 (in %)		-11.20577 (5.348999)**			-9.796959 (5.446128)*	-137.5288 (58.47593)**
Perceived sentiments towards foreigners			-1.429962 (0.7838202)*	-1.730622 (0.8305361)**	-1.551892 (0.8283479)*	1.192341 (1.7428
Perceived sentiments towards foreigners x Immigrant group size						-8.087692 (3.684138)**
Perceived sentiments towards foreigners x Immigrant group size^2						5.051465 (2.284374)**
Control variables						
Gini	1.341876 (0.6656042)**	1.501742 (0.66104)**	0.4655831 (0.655929)	0.7189222 (0.6921743)	0.8924135 (0.6921192)	0.866124 (0.6829(
Unemployment	-0.0779986 (0.4374744)	0.1758172 (0.4482539)	-0.7228618 (0.4261541)*	-0.3898836 (0.4630924)	-0.1435675 (0.4785457)	-0.0530342 (0.4805674)
GDP	0.0119513 (0.094085)	0.0006194 (0.0929726)	0.0110956 (0.091188)	-0.0133403 (0.0939041)	-0.0209879 (0.0930777)	-0.0216399 (0.092212)
Constant	-28.578 (24.15201)	-40.33178 (24.47771)	41.82824 (32.58008)	34.44868 (33.47237)	18.3383 (34.33184)	-48.79242 (49.442
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	146	146	142	136	136	136
Adjusted R^2	.0693940906333783	.1017084756684684	.0611281232045887	.1006094734924002	.1260867113417238	.16521811419258

a) *90% significance level (p < 0.10), **95% significance level (p < 0.05), ***99% significance level (p< 0.01)
b) Normal R-square as adjusted is negative

The same results are derived from this analysis compared with the one reported about in the results paragraph, although in here the N is lower compared to the results with mean imputation. Also, as the results do not change substantially, the decision is made to report about the results with mean imputation as N is higher and all the available information is then used. The last discussion remaining is about including year as a confounder in the modelling. Some studies use a time variable as an explanatory variable in their panel analyses, while others tend to exclude this variable as the panel analyses itself is

based on the trends over time (described via a variable such as year). By reason of clarity, the results below are based on the modelling when year is included in the modelling.

Dependent variable: PRR voting	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant group size (in %)	1.821632 (4.830626)	13.85964 (10.77088)		.0408783 (4.870531)	5.350704 (11.30534)	193.6056 (83.10212)**
Immigrant group size^2 (in %)		-6.316453 (5.054204)			-2.688711 (5.162239)	-91.0917 (53.6909
Perceived sentiments towards foreigners			-1.932518 (.7116307)***	-2.39984 (.7564229)***	-2.331446 (.7701949)***	1.170024 (1.5763
Perceived sentiments towards foreigners x Immigrant group size						-7.929387 (3.332322)**
Perceived sentiments towards foreigners x Immigrant group size^2						3.616729 (2.085776)*
Control variables						
Gini	1.302827 (.611205)**	1.392741 (.6140434)**	.2250946 (.5920503)	.5260729 (.6225784)	.5792604 (.6329246)	.5630599 (.62060
Unemployment	.1395724 (.4033682)	.2660887 (.4149872)	-.3194111 (.3908255)	-.2335236 (.4168652)	-.1704431 (.4354231)	-.2017895 (.43566
GDP	-.0147522 (.0861356)	-.0208985 (.0860801)	-.0489432 (.0828286)	-.0442844 (.0845202)	-.0454888 (.0848305)	-.03583 (.0834503
Year	.9149566 (.1880677)***	.8575091 (.1931881)***	.9132272 (.1698672)***	1.017342 (.1925443)***	.987937 (.20126)***	1.0347 (.2059427)***
Constant	-1858.805 (376.3857)***	-1750.196 (385.4537)***	-1771.236 (338.5163)***	-1979.119 (382.2757)***	-1925.342 (397.1917)***	-2100.294 (410.7641)***
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	147	147	142	136	136	136
Adjusted R^2	.0792122832223526	.0833992564582604	.0988529545800628	.1259707106533414	.1201947206453448	.15420873230677

What can be derived from this table is that year tends to ‘steal’ the explanatory power of the other variables, making the variables less significant while the variables stay the same in their size and direction. One can make their own conclusions about what is better according including year in the modelling based on this table compared with the one reported about in the results paragraph.

IV Complete table results paragraph

Dependent variable: PRR voting	(1)	(2)	(3)	(4)	(5)	(6)
Immigrant group size (in %)	8.088198 (4.269884)*	27.47263 (9.660731) **		8.370249 (4.21337)**	26.06994 (9.57833)***	207.3088 (83.61383)**
Immigrant group size^2 (in %)		-10.94383 (4.909065)**			-10.00664 (4.876461)**	-131.4201 (52.2804)**
Perceived sentiments towards foreigners			-1.701996 (.6951476)**	-1.631405 (.7401926)**	-1.488258 (.7349863)**	.6662296 (1.53675
Perceived sentiments towards foreigners x Immigrant group size						-7.205374 (3.390424)**
Perceived sentiments towards foreigners x Immigrant group size^2						4.815745 (2.06396)**
Control variables						
Gini	1.214935 (.6284005)*	1.328534 (.6216445)**	.4544487 (.5330581)	1.005447 (.6270427)	1.127699 (.6226781)*	1.076512 (.6160862)*
Unemployment	-.1570326 (.3966386)	.0385941 (.4007786)	-.2036433 (.3537823)	-.1331558 (.3913582)	.0436232 (.3963274)	.1258562 (.39589
GDP	-.0086968 (.089067)	-.027572 (.0882202)	.0073613 (.0843777)	-.0179711 (.0879483)	-.0344161 (.0873041)	-.0436131 (.08682
Dummy missing PRR	1.963797 (4.141697)	1.430188 (4.09039)	3.985117 (3.940091)	2.595852 (4.095047)	2.05248 (4.056539)	1.721505 (4.00892
Dummy missing sentiments	-5.436336 (3.628763)	-5.085203 (3.581134)	-4.514775 (3.506518)	-4.356816 (3.61244)	-4.130474 (3.572541)	-4.515914 (3.5484
Constant	-19.8562 (22.36615)	-28.44664 (22.38538)	45.33606 (27.49958)	24.33127 (29.80912)	12.59926 (30.01536)	-39.21934 (43.53604)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	163	163	171	163	163	163
R^2	.0720188056308529	.1045038887925472	.0653774318924201	.1037963604936125	.1307112421806479	.16464951290292

In this table, one can see the complete table including the coefficients for the dummies of the missing values of PRR and perceived sentiments, while at the same time this table provides the coefficients not rounded to 2 decimals.