

THE FACTORS OF POPULISM

An analysis on the effect of environmental factors on Dutch populist voting.

Abstract

Previous literature provides insights on potential factors of populist voting behavior. Seemingly, next to the importance of individual factors such as personality, gender or personal characteristics, environmental factors are also seen as important causes of populist support and voting behavior. This paper investigates the relationship of income inequality, immigration and unemployment on the Dutch populist voting share. I use data on 352 Dutch municipalities according to the municipal division of 2021 for the years of 2002, 2003, 2006, 2010, 2012, 2017 and 2021. The data on the election results, which is used to measure the populist voting share, is retrieved from De Kiesraad. Additionally, the data on the environmental factors and control variables are retrieved from het Centraal Bureau voor de Statistiek (CBS). Since the data is panel data, the use of a fixed effects model is recommended. The hypotheses are tested by estimating the effects of the environmental factors on the populist voting share per municipality. According to these estimates an increase of inequality in income is related to a higher populist voting share. This finding is in line with statements in the literature. However, the estimate is perceived to have a statistically insignificant effect. The results also show that a higher number of immigrants in the municipality has a negative effect on the populist voting share. This indicates that the more immigrants are present in a municipality, less people will vote for populist parties. When estimating the mediating effect of the presence of an asylum center for this relationship, this interaction effect appears to be negative, but is statistically insignificant. Lastly, the effect of unemployment shows both a positive and negative relationship with the populist voting share depending on the model used. Although this effect appears to be statistically insignificant.

Name student: Luna Werleman
Student number: 504001

Supervisor: Dana Sisak

Date final version: May 31, 2023

The views stated in this thesis are those of the author and not necessarily those of the supervisor, second assessor, Erasmus School of Economics or Erasmus University Rotterdam.

Table of content

1. Introduction	3
2. Literature review and hypothesis building	6
2.1 <i>Background</i>	6
2.1.1. Populism	6
2.1.2 Populism in the Netherlands	8
2.2 <i>Literature and hypothesis building</i>	10
2.2.1 Factors of populist voting	10
3. Data and methodology	17
3.1 <i>Data sources</i>	17
3.2 <i>Variables</i>	19
3.2.1 Dependent variable	19
3.2.2 Independent variables	19
3.2.3 Control variables	20
3.3 <i>Descriptive statistics</i>	22
3.4 <i>Methodology</i>	23
3.4.1 Justification of the model	23
3.4.2 Fixed effects	25
3.4.2 Design of the model	26
4. Results	27
4.1 <i>Characteristic control variables</i>	28
4.2 <i>Contextual control variables</i>	28
4.3 <i>Income inequality</i>	28
4.4 <i>Immigration</i>	32
4.4.1 AZC	33
4.5 <i>Unemployment</i>	34
5. Robustness analysis	37
5.1 <i>Control variables with lag</i>	37
5.2 <i>Random effects model</i>	37
5.3 <i>Left- and right-wing populism</i>	39
5.4 <i>Large and small municipalities</i>	41
6. Conclusion, discussion and limitations	42
6.1 <i>Conclusion</i>	42
6.2 <i>Discussion</i>	44
6.3 <i>Limitations</i>	45
References	48
Appendix	57
<i>Appendix A – estimation without voter turnout as control variable</i>	57

<i>Appendix B – Explanation of variables</i>	58
<i>Appendix C – List of municipalities included</i>	60
<i>Appendix D – pairwise correlation</i>	67
<i>Appendix E – VIF score</i>	69
<i>Appendix F – Hausman test</i>	70
<i>Appendix G – Regression results for western and non-western immigration as independent variable</i>	71
<i>Appendix H – Regression results with AZC as independent variable</i>	72
<i>Appendix I – Robustness, lag variables</i>	73
<i>Appendix J – Robustness, random effects model</i>	75
<i>Appendix K – Robustness, Left- and right-wing populism</i>	76
<i>Appendix L – Robustness, large and small municipalities</i>	78

1. Introduction

Where the 20th century had to deal with popular ideologies such as communism, in the 21st century populism became increasingly more popular in the political landscape of European countries.

Populism is an ideology or a political stream that occurred as early as during the Roman period and is present in politics ever since then. Populism gained increasing popularity at the end of the 19th century in the United States when the 'People's party' was found. This is considered to be one of the first real populist parties in world's politics (History, 2018; Mudde, 2015). One of the most famous current populists is former president of the United States, Donald Trump. He was one of the most important political leaders on earth from 2016 until 2020 (Weyland & Madrid, 2019). The rise of populism in the United States has not gone unnoticed and also found its way to European politics. Populism has become popular in plenty of European countries. For instance, in Germany with 'the Alternatieve', in France with the 'French National Rally' or in Austria with 'the Freedom Party of Austria' (Lazar, 2021).

In the Netherlands one of the earliest populist movements is the 'Plattelandsbond' which was found in 1917 (Historiek, 2020). The establishment of the Platterlandersbond party documented the start of populism in the Netherlands; however, populism did not find its popularity until later that century. In 2002 Pim Fortuyn caused increasing interest in populist movements with the establishment of his party 'Lijst Pim Fortuyn' (LPF). The populist success was continued after his death by Geert Wilders with the Freedom party (PVV) (Krouwel, 2021). Nowadays, the Dutch political landscape is not complete without the populist parties. In the last 10 years more populist parties such as 'Forum voor Democratie' (FVD) and the Boer Burger Beweging (BBB) have entered and gained increasing popularity in Dutch national and local politics. More recently during the provincial council elections in 2023 the latter party was the undisputed winner.

The increased popularity of populist movements is needed some concrete explanation. As was mentioned earlier, populism is an ideology and political stream that already exists for centuries. This can make one wonder why it has only been popular for a relatively small period of time. According to Cantoni and Pons (2022) both individual factors such as gender, age and personality, but also environmental or contextual factors can contribute to the rising popularity of populist movements. One important contextual factor is the economic context (Weng, 2015). As implied by Rodrik (2018) the globalization of the economy and the increased desire for fair economic practices is one of the key factors to the rise in populism. Additionally, populist parties often exclaim problems regarding the ethnic composition of the population. Therefore, the composition of the population can be considered to be an important determinant in the success of populist parties (Cover, 2020;

Rickardsson, 2021). All in all, from previous research it can be implied that external factors such as unemployment, immigration and income inequality have a significant effect on the voting behavior of people (Algan et al., 2017; Piketty, 2013; Podobnik et al., 2017; Sola, 2018). Does this mean that these external factors can have a significant effect on the Dutch populist voting share too? What is the difference in effect between those factors and in what direction moves their effect? How is the potential effect of these factors present in the Netherlands? To be able to find an answer to these questions, the following research question is formulated:

How do environmental factors influence the popularity of populist voting in the Netherlands?

This paper will contribute with its findings to research on voting behavior and motives in the context of populism. Research on voting behavior looks at different characteristics, circumstances or events and how people project these into their own voting decision. From a societal point of view, this type of research can be very important. Since people often tend to deviate from rational economic behavior, it is preferred to gain a larger understanding of human behavior in this context (Reeson et al., 2009). Having increased understanding can be valuable for political parties who can gain insights on what kind of communication or attitude might be effective to gain a larger following. For policy makers this might also be of interest since they can learn how voters react to different political attitudes. They can use this information for the construction of regulations regarding campaigns or communication during election periods. Additionally, research about the voting behavior can give possible explanation or motives for one's support of a political party. This can give other people a better understanding of why some people support populism which can help to decrease polarization.

The rise of populism around the world is an already often investigated topic in the literature on voting behavior. This literature often discusses the rise of populism is investigated in American context. Recently, plenty of research is conducted regarding the rise of populism in context with Donald Trump. According to Inglehart and Norris (2016) the development towards a cultural and open society and the rise of immigrants in the United States led to a higher support of populism. A large share of research is also conducted about populism in Latin-America. As stated by Houle and Kenny (2018) Latin America is the land of the populists and has probably the most populist leaders in the world. However, politics in the United States and Latin America are very different compared to European politics. Which implies that the external validity of these researches is not very high and might not be the best to explain factors of populism in Dutch context.

Generally, Dutch research on the factors of populism is usually very focused. Most articles are concentrated on the rise of populism with Pim Fortuyn, who was the first leader of a significantly large populist party in the Netherlands. Consequently, Geert Wilders is often discussed who is

currently one of the most famous populists in the Netherlands (Koopmans & Muis, 2009; van Kessel, 2011). Factors of populism in the Netherlands are studied but mostly in combination with research on other European countries (Bakker et al., 2016; Pauwels, 2014; van Kessel, 2013). This paper addresses an important gap. Since plenty of research regarding populism is conducted on the scope of either American or European level, I will provide a more country specific study of factors of populist voting by only focusing on the Netherlands. Even when Dutch research is combined with research about other European countries, systems, organizations of democracy and political attitudes can be very different which makes it is hard to generalize this effect.

Factors of populism are thoroughly investigated over the years. According to European research by Caiani and Graziano (2019) events such as the economic crisis or the increasing arrival of immigrants created a window of opportunity for populist parties to gain more followers. Plenty of research that focusses on the factors of populist voting specifies its investigation to one factor or closely related factors. For instance, Shehaj et al. (2019) investigate the effect of immigration, in both cultural and economic perspective, on populist voting behavior. Rodrik (2018) generally focusses his research on economic drivers of populism. Some estimate the effect the media has on populist support (Mazzoleni, 2008). More individually focused factors such as personality or gender are also suspected to be related to populist voting (Bakker et al., 2016; Betz, 1994; Spierings & Zaslove, 2017; Verba et al., 1997). All in all, most literature only focusses on the effect one potential factor or closely related factors of populism. But, as Cantoni and Pons (2022) suggests, voting behavior is not determined by one single factor. To be able to incorporate multiple aspects into the explanation of populist voting behavior, I estimate the effects of multiple factors on the populist voting share. Thus, this research will fill the gap in the literature about populist voting by providing a country specific, multi-factor analysis of populist voting behavior.

In this thesis I investigate the relationship between environmental factors and the populist voting share in a municipality. I do this by collecting data on voting results from the Kiesraad and I retrieve indications of the environmental factors from the Centraal Bureau voor de Statistiek (CBS). The data is collected for 352 Dutch municipalities in the years of 2002, 2003, 2006, 2010, 2012, 2017 and 2021, which are second chamber election years. To be able to estimate the effects of the environmental factors on the populist voting share, a fixed effect regression is performed with time, municipality and COROP fixed effects. The hypotheses are established by combining literature about populist voting behavior with literature on important environmental factors such as income inequality, immigration and unemployment and their effect on populist voting. In order to answer the research question, I estimate the effect of these environmental factors on the populist voting share of a municipality.

The results obtained from the fixed effects regression do support the expected positive relationship of income inequality and the populist voting share. According to the results, the more unequal the distribution of the income, the higher the populist voting share is expected to be. The effect is however not statistically significant. The insignificant effect indicates that the model is unable to estimate the effect of income inequality precisely, thus the coefficients cannot be interpreted. Additionally, when the share of immigrants in the population rises, this has a negative and significant effect on the populist voting share. The effect suggests that when the share of first-generation immigrants of the population is higher, the populist voting share is implied to be lower. This is not in line with the positive relationship that was derived from the literature and the stated hypothesis. When adding the presence of an asylum center (AZC) to the model as an interaction effect, this relationship is suspected to be positively mediating the relationship of immigration and the populist voting share. Although, this relationship from the fixed effect estimates appears to be negative and insignificant. Finally, the effect of unemployment has both a positive and a negative effect on the populist voting share. Unfortunately, this estimate indicates a statistically insignificant relationship. Generally, most estimations are not in line with the hypotheses stated and are therefore contrary to the literature.

This paper is structured in the following way: Section 2 provides an overview of important literature regarding populism and populism in the Netherlands. Additionally, literature about the effect of unemployment, immigration and income inequality is presented to motivate and state the hypotheses. The third section explains the structure and origin of the data together with the methodology I use to analyze the data. The fourth section contains the results of the data analysis. The fifth chapter includes an explanation and presentation of the results of the robustness checks. The sixth section is the last section and here I conclude the findings and give a discussion of the results. Also, the limitations of the paper and recommendations for further research are provided in this last section.

2. Literature review and hypothesis building

2.1 Background

2.1.1. Populism

In this research the focus is on determining factors of populist voting behavior. Populism is a very broad term and knows multiple definitions. In the past, the term populism is used to describe the direction of parties, people, ideologies, leaders and other different political contexts. Since there are

plenty of different ways of using the term populism, it is suggested that the definition of populism can be varying depending on the context (Arter, 2010). These discrepancies in defining populism can also arise between countries and continents. Differences between adaptations of populism and relations of democracy and populism between countries are considered to be important aspects of populism (Gellner & Ionescu, 1969; Mudde & Kaltwasser, 2012; Sawyer & Laycock, 2009). Additionally, the discrepancy between left-wing and right-wing populism also raises the difficulty of creating a single definition for populism (Mudde & Rovira Kaltwasser, 2013). Therefore, there are critiques saying it is impossible to define populism in a single hand term (Brubaker, 2017).

Since definitions of populism can be very elaborate due to the reasons discussed previously, I will focus on a minimal definition to capture the general definition of populism in a clear and understandable way. Minimal definitions of populism are often focused on either organizational aspects or on idealizations (Kaltwasser, 2018). One definition of populism as a political organization suggests that populism is a political strategy where one political leader exerts power with support. This support can be either organized or unorganized from its followers (Weyland, 2001). Since the described definition is not dependent on the context of the content or the leader of a party, it allows to use the definition generally. That also means that such definitions are very unspecific (Gidron & Bonikowski, 2013).

A popular definition is the one proposed by Mudde (2004) which imposes that populism is an ideology. This ideology dictates that politics should reflect the general will of people, however society is divided into two groups; the pure people and the corrupt elite. The pure people are suggested to be normal or average citizens and the corrupt elite is the upper layer of society. Mudde (2004) also states that populism cannot be generalized with one type of leader or communication but can arise in many different forms. Therefore, he stretches that populism is an almost undefinable term which can know multiple interpretations. Various papers agree on this definition of populism by highlighting that the 'general will' and 'pure people and corrupt elite' are important concepts of defining populism (Yilmaz & Morieson, 2022). Pankowski (2010) also adds to the definition of Mudde by stating that when defining populism, one should also take into account the differences of cultural resources per country.

However, this definition by Mudde knows many critiques. According to de la Torre and Mazzoleni (2019), Muddes definition has various problems. The definition is suspected to be too general and subjective to give an all-encompassing definition of populism. Some papers suggest an even more straight forward definition of populism as populism defined by people in a morally charged battle against the elite (Mansbridge & Macedo, 2019).

In populism one should not forget the discrepancy between left-wing populism and right-wing populism. Left-wing populism emphasizes that the 'elite' has an increasing global focus and

mostly focusses on their international relationships. For right-wing populism this discrepancy of the elite and ordinary people can be found in the way they handle immigrants. Right-wing populists stretch that the elite favors the arrival of immigrants which can bring unfavorable aspects for the 'normal people' (Brubaker, 2017). One similarity between left-wing and right-wing populist parties is their populist rhetoric, such as sticking up for the common interest and focusing on issues that are currently happening. Another similarity is their point of view on European integration (Otjes & Louwerse, 2015).

A different perspective on populism is given by de Vreese et al. (2018). They perceive populism as a communication style opposed as seeing it as an ideology or organization. This means that populism is the style of communicating ideas and ideologies. However, not much support is found for this definition.

As mentioned previously, in this research I will focus on a more minimal definition of populism to capture populism in an understandable way. However, since populism is a very complex concept, I need to combine aspects of multiple definitions to construct one definition of populism. Populism in this paper follows the general definition of Mudde (2004) which states that populism is an ideology or a political stream that reflects the will of citizens in the practices of politics. Additionally, as proposed by Brubaker (2017), in this paper it is also assumed that populist parties acclaim to represent the need of the general citizens and not only reflect the needs of the elite in politics. As well as to protect the people of getting deprived by the ones in charge. Lastly, I follow Otjes and Louwerse (2015) by stating that populist parties focus their actions and statements on current and trending events or issues that are important for voters. Combining these aspects, I define populism as a political ideology or stream that tries to represent the common citizen by standing up for their needs, when needed against the elite, and focus their party program on current events or issues.

2.1.2 Populism in the Netherlands

When populism was already a wide known and an important phenomenon in world politics, it was not yet in the Netherlands. Up until the year of 2002 populism was not very popular in Dutch politics. In the past there were populist parties, but those were considerably small and most often had the main goal to serve as a movement against the pillarization in the country. Examples of populist parties before 2002 are populist parties set up by farmers and agrarians (Lucardie, 2008). Around 1980 the Centre Party and the Centre Democrats, both populist parties, subsequently both had seats in the parliament (Betz & Immerfall, 1998; Mudde, 2002). After that the Socialist Party (SP) entered the parliament in 1994 as a populist party that stood up for the working class (van der

Steen, 1995). Later, the populist party 'Leefbaar Nederland' was founded which resulted from a collaboration between similar parties that were active in the municipality level. However, this party only had two seats in the parliament.

Thus far, populism is present in Dutch politics, but is not yet a large player in the parliament. This changed when the party 'Lijst Pim Fortuyn' (LPF) became the second largest party in the parliament in the year of 2002 (Lucardie, 2008). LPF was founded after Fortuyn was evicted from the populist party Leefbaar Nederland. After setting up his own party, he became instantly popular by the Dutch voters. Pim Fortuyn stretched the importance of a free-market economy and the reduction of red tape in education and healthcare (LPF, 2002). In some aspects Fortuyn was very liberal. For example, on drug use or on a cultural aspect (van Kessel, 2011). His view on immigration was overall considered to be very populist. Fortuyn made it vocal that accepting too much immigrants is not good for the country and would create a setback for the native Dutch people (LPF, 2002). After Fortuyn was murdered the success of LPF did not last for long.

In the next election there was a return of populism to in the parliament when Geert Wilders parted his way from the liberal party VVD and found his own (populist) party: PVV (Freedom party) (Wilders, 2005). Wilders approach was similar to the one of Fortuyn. The only large difference between the two leaders was the level of aggression and radicalization. Overall Wilders was very vocally against the Islam and wanted to protect the Netherlands against Islamization, since that was, as according to him, one of the main causes of economic and social problems (Vossen, 2010). In the elections of June 2010 Wilders obtained 15.5% of the votes and is nowadays still an important politician in the Dutch parliament.

Important reasons of the fast rise and high popularity of populist parties at the end of the 20th century and the start of the 21st century is the increased accessibility of the electorate. Previously there was high pillarization which meant that if you were not in a pillar, chances were small you would have a significant contribution to the national politics (Lijphart, 1975). When the pillars became less leading in Dutch politics, there was more place for the success of different parties. Voters were finally able to choose between a more varied pallet of parties (van Holsteyn & Irwin, 2003). The decrease of pillarization in Dutch politics also meant that there was higher accessibility for new parties to enter. This also meant that populist parties were able to have more success (Mair, 2008). Even more so, the rise of populist parties was successful in the Netherlands since Dutch politics has overall been a very good environment for new parties (Mair, 2008).

Another reason why populist parties have quickly gained popularity in the Netherlands has to do with the established parties. According to findings by Pennings and Keman (2003) in the last century the existing parties in Dutch politics have converged. This made it difficult for voters to

acknowledge the difference between the different established parties. Therefore, populist parties really stood out and attracted many new voters (van Kessel, 2011).

One of the final explanations of the rise in popularity of populist parties in the Netherlands is the increase in supply of trustworthy populist parties at the end of the 20th century. It is important that next to operating in a good and stable environment, the party needs a credible and skilled leader next to an excellent organization of the party in order to become successful (Carter, 2011). Also, it must not be forgotten that the leader of the party plays an important part in the process of attracting voters and becoming popular (van Hoisteyn & Andeweg, 2006).

2.2 Literature and hypothesis building

2.2.1 Factors of populist voting

As has been established earlier in this paper, populism has become increasingly popular in the Netherlands in the 21st century. Also, I have already discussed that changes in the Dutch political atmosphere have provided advantages for populist parties to become more popular. However, there are also factors voters experience individually that contribute to the increased success of populism.

First and foremost, it is suspected that voters' personalities, characteristics and demographics can have an effect on their voting behavior, especially towards populism. An important finding is the difference in populist voting behavior per gender. According to Betz (1994) and Spierings and Zaslove (2015) there is a gender gap in voting for the populist right-wing parties. This gap means that men are overall more likely to vote for populist right-wing parties, and populist parties overall, compared to women. For this phenomenon two general motivations are provided. Firstly, men have a different socio-economic position in comparison to women. They have overall higher incomes but also have jobs that are more labor intensive. These jobs are often suspected to be threatened by immigrants and deindustrialization (Betz, 1994; Spierings & Zaslove, 2015). The problem of immigration is often raised by populist parties. Women are overall more often employed in the public sector where these threats are less visible. This makes women less likely to be dissatisfied with the established order, thus less likely to support populist parties (Spierings & Zaslove, 2017). Secondly, men and women have different attitudes towards anti-immigration and the established order. Attitudes of men are more aggressive and in for change, which coincides with the view of populist parties as in comparison to women (Harteveld et al., 2015; Immerzeel et al., 2015). Overall women are also less engaged and interested in politics compared to men, therefore men are also more likely to support populist parties (Verba et al., 1997).

Besides gender, other demographic characteristics can affect one's tendency to vote for populist parties. Right-wing populist parties can count on the support of younger, less educated voters (Harteveld et al., 2015; Immerzeel et al., 2015; Spierings & Zaslove, 2017). For populist left-wing parties this profile is slightly different. Overall, these voters are suggested to have a lower income and no specific education profile. However, there is some discrepancy in findings. According to (Visser et al., 2014) left-wing populist voters are more likely to be unemployed. Opposed to this, Ramiro and Gomez (2017) state that supporters of left-wing populist parties are most often part of the working class. This shows that there can be a somewhat general profile of populist voters. However, one must be careful since these groups can only be generalized to a certain extent.

Also, personal characteristics can be an important determinant of populist voting. According to Bakker et al. (2016) an important personality trait of populist voters is that they have low agreeableness. Motivation for this is that people that have low agreeableness have more in common with populist leaders that often do not agree to viewpoints of the established order. This similarity can make them more likely to vote for a populist party. Additionally, a personality trait such as conscientiousness is suspected to have a positive relationship with Dutch populist voting (Bakker et al., 2016). Additionally, Dutch populist voters are generally more extravert compared to people who do not vote for populist parties (Bakker et al., 2016).

Not only the voters personal and demographic characteristics are important when researching factors of populist voting. According to research by Pattie and Johnston (1998) personality traits are important factors when inspecting voter behavior, however context is also very important. They impose that factors like personal circumstances but also contextual factors in politics and the economy are supposedly good determinants of voting behavior. Likewise, Weng (2015) found empirical proof that different contextual factors like the economical context and the political context have a significant effect on the voting behavior of people. Thus, context is overall considered to be an important determinant of voting behavior. This does not mean that the context is more important than individual characteristics. When observing factors of voting behavior, Cantoni and Pons (2022) stretch that it is very important that when analyzing the effects of such factors, one should not forget that both individual characteristics and contextual factors are very important both combined and independently. Important contextual factors of populist voting are considered to be income inequality, immigration numbers, the presence of an asylum center and unemployment (Algan et al., 2017; Cox, 2017; Evans & Ivaldi, 2021; Güvercin, 2022; Passari, 2020; Stoetzer et al., 2023; Zimmermann & Stutzer, 2022).

2.2.1.1 Income inequality

Generally, the literature suggests that humans prefer equality and equity (Sampson, 1975). In line with this, people believe that achieving economic equality has a large value to society. Therefore, they often act towards this direction to decrease the inequality (Frankfurt, 1987). Generally, wealth is not divided equally among people. There are always people who have, or have access to more in comparison to others (Davies & Shorrocks, 2000). Economic inequality is perceived to be an important driver of voting behavior. According to Linn and Nagler (2017), when economic inequality increases, voters do not take the aggregate economy into account when voting but focus more on its distribution. Similarly, Bartels and Brady (2003) discuss that economic inequality is an important determinant of the choices that voters make. They even stretch that economic inequality is a more important factor in comparison to changes in technology, trade flows or education.

An important measurement of economic inequality is income inequality (Klasen et al., 2018). As has been argued previously, contextual factors are important to determine voting behavior, so is the context of income inequality. Research on American elections by Galbraith and Hale (2008) shows that when income inequality in a state is higher, voter turnout is significantly lower. Additionally, they show that votes tend to be more democratic compared to situations where income inequality is lower. This view is supported by Anderson and Beramendi (2008) since they suggest that a large disparity in income leads to electoral abstention. Income inequality also influences the choice that people make when voting. Results show that increasing income inequality has a significant positive effect on right-wing votes for low-income groups (Han, 2016). All in all, income inequality is proven to be an important factor in voting behavior.

When there is distance between people, such as income inequality, this will damage the group identity and will decrease social trust (Keefer & Knack, 2008; Shayo, 2009; Uslaner & Brown, 2005). Additionally, the decline in social trust can make people more hostile towards minorities such as immigrants (Andersen & Fetner, 2008). Populistic parties often raise awareness for injustice of the common citizen and emphasize that they will stick up for the people (Mudde, 2004). Populistic parties also often play in to one's inequality aversion and are known to advocate for anti-immigration legislation (Art, 2022; Pástor & Veronesi, 2021a). This suspects that there could be a positive relationship between increased income inequality and populist voting. As stated by Piketty (2013) the growth of the economy and the corresponding increase in inequality of income were an important start of the rise of populism. Consequently, O'Connor (2017) implies that populist parties use income and economic inequality as provided proof of malfunction of the established parties. The inequality will attract people that are dissatisfied with the current economic and political situation. Thus, income inequality can be suggested as a good driver of populist voting. Stoetzer et al. (2023) states that factors such as economic insecurities, trust in political leaders and national identity are

connected to increasing income inequality and populist voting. They also suggest that rising income inequality is a factor of increasing support for populist parties, but that these previously mentioned mechanisms does not create full understanding for this relationship.

Although, some research does not support the positive relationship between income inequality and populist support. According to research by Hüther and Diermeier (2019) specified on German voting behavior, no causal effect between income inequality and rising populism is found. They suggest that this is because the income inequality rates were generally stable in Germany. Together with these stable rates, there was a substantial increase in supporters of populist parties but it did not imply a causal effect between the two.

All in all, regarding that income inequality increases dissatisfaction and distrust, it makes it plausible that this will lead for more votes towards populist parties since those parties are often the ones to raise these problems as their main concern.

Hypothesis 1: Increased income inequality has a positive effect on the share of votes for Dutch populist parties.

2.2.1.2 Immigration

With the increasing globalism, countries are becoming more diverse due to the influx of immigrants. Where some people see the beauty of a multi-diverse population, other people feel threatened by the increasing body of immigrants (Ceobanu & Escandell, 2010). According to Douglas et al. (2019) the term immigrant is defined as a person that moves to and lives in another country than they were born in. Most often immigrants are perceived as a negative factor and are often implied to be freeloaders (Alesina & Stantcheva, 2020). These immigrants with a negative stigma are often economic or cultural immigrants (Hellwig & Sinno, 2017).

The literature presents two opposing theories on how immigration can impact voting behavior. Firstly, the contact theory supposes that increased contact between natives and immigrants can lead to more acceptance and understanding with each other (Allport et al., 1954; Rothbart & John, 1993). Opposed to this is the context theory which imposes that when there are more immigrants in a country, the natives will feel threatened. People are afraid that their traditions and way of living will be exposed to change due to the arrival of the immigrants, which can lead to xenophobic behavior (Sherif & Sherif, 1953).

The rise of immigrants is an important determinant of voting behavior. European research shows that the arrival of low-skilled immigrants pushes voters towards parties that are less focused on the welfare state. Immigrants that are high skilled make voters more likely to vote in favor of

parties that focuses on the welfare state (Moriconi et al., 2019). According to Brunner and Kuhn (2018) when immigrants are culturally different from natives, their arrival has a significant effect on voting behavior. However, when they are culturally similar, this effect is not present. Not only the arrival of immigrants has an impact on voting behavior. According to (Abou-Chadi & Helbling, 2018) policy reforms concerning immigrants can also affect voting behavior. General, liberal and restrictive policy reforms all have a positive effect on the issue voting. Finally, it is argued in many European studies that the increase of immigrants in a country leads to increased support from natives for the anti-immigration and/or nationalistic parties (Coffé et al., 2007; Dahlberg et al., 2012; Gerdes & Wadensjö, 2008; Lubbers & Scheepers, 2000; Otto & Steinhardt, 2014; Shvets, 2004). This view is supported by recent research of Cools et al. (2021) who suggests that high local-immigration numbers have an association with voting for anti-immigrant parties.

Regarding the previously discussed literature, it can be implied that immigration is an important driver for voting behavior and people are generally more likely to vote for anti-immigration parties when immigration is high. Overall, populist parties are audibly concerned about the increasing immigration numbers (Art, 2022). This ties in with the concept that populist parties want to protect the common people against the elite and the established order who, in this case, are generally more welcoming to the immigrants (Brubaker, 2017). Therefore, a positive relationship between high immigration numbers and populist voting can be suspected. A paper by Podobnik et al. (2017) advocates that the high popularity of right-wing populist parties is caused by high immigration numbers. This view is supported by Evans & Ivaldi (2021) who found French evidence for the causality between high immigration numbers and populist support.

According to Algan et al. (2017) the increasing globalization is a reason why people tend to vote for more populist parties than before. Globalization in combination with technological progress leads to job polarization. This means that some jobs benefit from the globalization and technological progress and others not. The jobs that have to suffer are more often low-skilled jobs. These are also the jobs that most immigrants are suitable for, which can sometimes feel threatening for people. It is generally assumed that immigrants are associated with a negative economic influence (Margalit, 2019). Also, the different refugee crises have raised concerns about the rise of immigrants. As Sola (2018) found in a German study, the refugee crisis in Germany led to increasing support for right-wing populist parties that advocated for conserving national culture and customs. However, it is important to note that not all populist parties are anti-immigration. Both terms are overlapping but one does not exclude the other (Programme & Guia, 2016).

As can be implied from above, the immigration rate supposedly has a significant effect on one's voting behavior. Additionally, it is regarded that populist parties are generally against high

immigration since this is considered a source of frustration and uncertainty among voters. High immigration numbers are therefore suspected to have a positive effect on populist voting.

Hypothesis 2: Increased immigration numbers have a positive effect on the share of votes for Dutch populist parties.

Asylum centers are temporary living spaces for asylum seekers. In the asylum centers immigrants or refugees are provided with food, guidance and medical care while in process of awaiting their asylum application (COA, 2023a). Overall Dutch people do not have a positive attitude towards asylum centers. The aversion is bigger for large asylum centers compared to small asylum centers (Lubbers, 2006). People are even less willing to live in a neighborhood with an asylum center. This is proven by Daams et al. (2019) who finds that opening a new asylum center in a neighborhood causes the house prices in that neighborhood to fall. This is evidence for non-urban areas since these residents are overall not used to high exposure to immigrants. Therefore, they will have a more negative attitude towards the arrival of immigrants (OECD, 2023). However, not all researchers find a negative association between the presence of asylum centers and the perception of immigrants. A paper by Zorlu (2017) suggests that inhabitants close to an asylum center do not have a negative perception of asylum seekers or immigrants in general.

The arrival of asylum seekers in centers also affects voting behavior. According to Swiss research a municipality that hosts increasingly more asylum seekers cannot expect support for immigration friendly policies or redistribution in their elections on short term notice (Zimmermann & Stutzer, 2022). The negative attitude towards immigrants is in line with the view of most populist parties.

Taking into account that high immigration numbers fuel economic and political uncertainty. Together with the fact that most research suggests an increasing negative perception of immigrants with the opening of an asylum center. It can be suspected that the presence of an asylum center in a municipality can strengthen the positive effect of immigration numbers on populist voting.

Hypothesis 3: Increased immigration numbers have a positive effect on the share of votes for Dutch populist parties and this effect is larger for municipalities with an asylum center compared to municipalities that do not have an asylum center.

2.2.1.3 Unemployment

Having a low unemployment number in your country is often an indication of a more stable political and economic environment (Carmignani, 2003; Uddin & Rahman, 2022). Unemployment is generally defined as those who do not have a paid job and are currently looking for one (Stewart, 1950). If unemployment is low this means that there are sufficient work opportunities, people are working and contributing to the economy (Lovati, 1976). All in all, unemployment is seen as an important indicator of the economical state of a country, more specifically an important driver of economic insecurity when its rates are high (Scheve & Slaughter, 2004).

Economic indicators are important when analyzing voting behavior. Next to the individual factors such as social and psychological factors, contextual factors like one's economical state is also perceived to be an important factor when deciding what to vote (Cantoni & Pons, 2022). The research by Healy (2009) supports the view that economic indicators are important determinants of voting behavior. Additionally, as is suggested by Markus (1992), personal economic circumstances have a significant effect on one's voting behavior. He found that during the presidential elections in the United States in the late 20th century, personal economic factors such as income have an effect on the voting decision one makes. As is previously argued, unemployment is an important economic indicator and is therefore also expected to influence voting behavior. This is confirmed by Healy (2009) who ties in to the statement and finds that high individual, local and country-level unemployment decreases the tendency of the voter to vote for the incumbent party in the United States presidential election. A reason for this can be that when people observe a lot of unemployment in their surroundings or even with themselves, they can get anxious and this can reflect on their voting behavior. Additionally, it can also be that voters are compassionate and care about others. When observing high unemployment in their surroundings, they might take this into account when voting to try and improve the situation of others (Healy, 2009).

Considering that unemployment is a determinant of voting behavior, it is also plausible that it is a determinant of populist voting behavior. This statement finds much support in the literature. Various researchers suggest that a higher number of unemployment has a positive effect on votes towards populist or anti-establishment parties (Cox, 2017; Güvercin, 2022; Passari, 2020). One of the main drivers of this proposed causal relationship is the increasing uncertainty that comes with unemployment (Gozgor, 2022). The uncertainty ensures that people like to vote for a party that is actively working on changes to possibly improve their situation. These are often the populist parties that openly advocate this. The finding is corresponding with the research by Algan et al. 2017 who finds that the rise in populism can be associated with the rise in unemployment. Analyzing 26 European countries in the years of 2000 until 2017 shows that a one percent increase in unemployment, results in a one percent increase in populist voting. Algan et al. (2017) suggest that

the reasoning for this relationship is that when unemployment increases the trust in politics declines. The decline in trust makes more people tended to vote for populist parties since these are often focused against the established order. Unemployment also makes people more averse against immigrants. When people get unemployed and immigrant does have a job, they are inclined to feel like that is unfair. Since populist parties often address that there are too many immigrants and frown upon the fact that established parties are very welcoming against them, they are found to receive more votes when unemployment is high (Algan et al., 2017). Similarly, Dustmann et al. (2017) finds that unemployment leads to decreased trust and therefore the anti-establishment and populist parties seem more attractive to vote for.

This all implies that a high unemployment rate increases dissatisfaction among voters. Considering that populist parties are often in conflict with the established order and try to give people the feeling that they are heard, they will receive more votes when unemployment is high.

Hypothesis 4: Increased unemployment numbers have a positive effect on the share of votes for Dutch populist parties.

3. Data and methodology

In the third section I describe the data and methodology that is used in this research paper to investigate the proposed research question. In this research I use data on populist voting, immigration, income inequality and unemployment on municipality level to investigate their potential relationships. For the analysis of this data a fixed effects model is constructed.

3.1 Data sources

The data used in this research is collected from three different data resources. Firstly, the data to measure the populist voting share is retrieved from De Kiesraad. De Kiesraad is an independent advisory body that oversees and communicates the results of the parliamentary election in a fair and transparent manner. Additionally, de Kiesraad is also a center of information about the elections and suffrage (de Kiesraad, 2023). De Kiesraad presents the number of people eligible to vote, the turnout and the number of votes per political party. Since the process of presenting the election results is overseen by experts and all tasks are completely independent from political parties, the results are considered to be credible.

I use data from the Centraal Bureau voor de Statistiek (CBS) to provide an estimation of the potential causes of populism such as immigration, income inequality and unemployment. The control variables on municipality level are also collected from the database of the CBS. The CBS is an

independent statistical institution that collects and presents data on various topics about the Netherlands. The CBS was founded to provide an independent database to answer important societal questions (CBS, 2023c).

Finally, the data that indicates the presence of the asylum center in the municipality is retrieved from the Centraal Orgaan opvang asielzoekers (COA). The COA is an organization that is responsible for the reception and guidance of asylum seekers. This organization also organizes the establishment and locations of asylum centers in close collaboration with the municipality (COA, 2023b). According to the COA the location of the asylum centers is mostly dependent on spatial planning. Areas with low noise pollution are considered to be suitable for an AZC location (Rijkswaterstaat, 2023). Furthermore, the location of the asylum center depends on the benevolence of the municipality. In some cases, the COA, government or province can strongly recommend a municipality to host an asylum center when their conditions appear to be optimal (COA, 2023a; Rijksoverheid, 2023). The COA often exclaims the advantages of hosting asylum seekers when advocating for an asylum seeker center in the municipality. All in all, the location of an asylum center is not random. The final decision of locating an asylum center rests with the municipality.

The period covered by the data include the election years of 2002, 2003, 2006, 2010, 2012, 2017 and 2021. Only the election years are included in the data since there is no data available on the outcome of the elections in the years they are not held. Therefore, the estimation is most representative when only including the years of the elections. The elections of 2002 are considered to be the starting year of the period investigated. This period is considered since it provides a large availability of data from both De Kiesraad and the CBS. Additionally, as mentioned in the literature review, populism only became a significant part of the Dutch political landscape until the early years of the 21st century. The data only considers the results of the elections for the House of Representatives, or as they call it in Dutch: de Tweede Kamer.

All the data that is used is on the municipal level. However, during the period of 2002 until 2021 the amount and composition of municipalities has changed. These are mostly name changes and mergers between municipalities. According to the CBS, the number of municipalities is 496 in 2002 compared to 352 in 2021 (CBS, 2023b). To remedy this discrepancy between the years the municipal division of 2021 is taken as a starting point. If the municipality has undergone a name change the data of the previous years is assigned to their new name. If two municipalities merge, their number of votes are summed to create a new statistic for the merged municipality. By altering the composition to the final composition of municipalities in 2021, it is easier to estimate the model. There is some missing data for the municipality of Krimpen aan den IJssel for the year of 2002. That year is therefore deleted for that municipality which brings the total of observations to 2,463.

3.2 Variables

3.2.1 Dependent variable

To measure the effect of immigration, income inequality and unemployment on populist voting, I use the share of populist votes as the dependent variable of the analysis. This variable measures the share of total valid votes that is gone towards populist parties. Parties that are considered to be populist are de Socialistische Partij (SP), Lijst Pim Fortuyn (LPF), Partij voor de vrijheid (PVV), Forum voor Democratie (FVD), Boer Burger Beweging (BBB) and JA21 (Parlement, 2023a, 2023b). Research on populism in the Netherlands by van Kessel (2011) acknowledges the PVV and LPF as important populist parties. These parties focus on trending political and social events and stretch the importance of the normal citizen in their programs (Partij voor de Vrijheid, 2023). These characteristics comply with the definition of populism presented in the literature review. The SP is, according to their own statements and as stated in research papers, a populist political party that stands up for the lower working class against the higher class (Akkerman et al., 2017; Socialistische Partij, 2023). This statement is in line with the used populist definition which states that populist parties advocate for the normal citizens. FVD, BBB and JA21 are fairly newer parties to Dutch politics. These parties comply with the populist view by focusing their program and viewpoints on trending events, especially concerning immigration (Boer Burger Beweging, 2023; Forum voor Democratie, 2023; JA21, 2023). BBB is also a party that exclaims to stand up for the normal citizen by particularly emphasizing this in their program.

The variable for the populist voting share is presented in a percentage of the share of the total valid votes of the municipality. The share of populist votes can be considered as an accurate representation of populist support, assuming that the results are reported accurately.

3.2.2 Independent variables

The different variables to indicate factors of populist voting behavior are collected from databases from CBS. Additionally, the variable that indicates the presence of an AZC is retrieved from the COA. All independent variables are continuous variables. To measure the effect that immigrants have on populist voting, the share of first-generation immigrants compared to the total population in a municipality is used as an indicator of this factor in the variable *immigration*. First generation immigrants are used since they are often the least integrated in the culture or practices of the destination country (Portes et al., 2009). This large difference in culture can cause them to be a factor of dissatisfaction among voters, thus motivation to vote for a populist party (Brunner & Kuhn, 2018; Cools et al., 2021). Additionally, a percentage is used to provide a relative understanding and this makes it easier to generalize its effect on populist voting and to compare between

municipalities. To indicate if there is an AZC in the municipality a binary variable is introduced that is equal to 1 if there is an AZC in the municipality and is equal to 0 if there is not an AZC in the municipality.

The measurement of *income inequality* as a factor of populist voting is measured by the share of the total income that is earned in the highest ninth and tenth percentile of the income distribution of the municipality. In other words: it indicates the percentage of income that the richest 20 percent of the households in the municipality earns. It is implied that the lower this percentage is, the higher the income equality, since it means that still a large share of income is divided among the households in the lower percentiles of the income distribution. This measure is used to determine income inequality since this is the most complete measure available. According to De Maio (2007) the higher the percentage is, the more unequal the distribution of income since a group earns more of the national income compared to groups that are similar in size.

Finally, *unemployment* is measured by the percentage of the total working population in the municipality that is fit for work, has recently been looking for jobs, but does not have a paid job. People that are unfit to work are not included in this sample. All these factors are implied to be important determinants of populist voting behavior (Algan et al., 2017; Piketty, 2013; Podobnik et al., 2017; Sola, 2018). By estimating the effects of these factors on the share of populist voting the hypotheses are tested.

3.2.3 Control variables

As has been discussed in the literature review, both characteristics of the population and the environment are important when analyzing voting behavior (Cantoni & Pons, 2022). In order to control for varying factors in municipalities over time, control variables are added to the model.

According to various research it is determined that there is a difference in populist voting among men and women (Betz, 1994; Spierings & Zaslove, 2015). Generally, men are more likely to be voting for populist parties in comparison to women. Motivation for this is their difference in mentality and socio-economic status. Therefore, I add the *share of women* from the population of the municipality as a control variable to be able to control for the potential difference.

According to Bakker et al. (2016) and Spruyt et al. (2016) people with a lower education level are generally more often supporters of populist parties. Reasoning for this is that lower educated individuals have a weaker position in today's knowledge society. This can make them feel more vulnerable economically but also socially. Populism often plays into this experienced gap by sticking up for these minorities by giving them the feeling that they are being heard (Spruyt et al., 2016). Therefore, I will control for the effect of *education level* on populist voting in a municipality. I do

this by including the percentage of students in a high education level and the percentage of students in lower education levels in the municipality. The variable is used as a proxy for the educational level of the municipality. I recognize that the indicator is probably not entirely precise but it is the best data available for the full period of time on municipality level to indicate for the educational level.

Age is also implied to be an important determinant of populist voting. As stated by Arzheimer (2009), populist voters are both young and old. Other research suggests that populist voters are generally younger people (Rooduijn, 2018). To control for both these views from the literature, I introduce two control variables regarding age. *Share elderly* shows the percentage of the population that is 60 years or older. *Share younger* contains the percentage of the population that is between the ages of 18 and 35.

Contextual factors are also implied to be important determinants of populist voting behavior and can also differ between municipalities. Therefore, I control for contextual changes of municipalities when estimating the model. The variable *population* indicates the population of the municipality on January first of the reported year. Literature suggests that larger and more urbanized municipalities, thus municipalities with a higher population, have different problems compared to smaller municipalities (Martins, 1995). The discrepancy in problems among large and small municipalities can lead to different levels of populist support. According to Gidron and Hall (2017) more urbanized municipalities, thus municipalities with a higher population, are overall less supportive of populism compared to smaller, less urbanized municipalities. Therefore, *population* is added to control for this potential difference.

To add an additional measure of urbanization, the control variable *mobility* is added to the model. More urbanized regions are better accessible compared to less urbanized regions (Antrop, 2004). To measure this mobility, the length of the roads in kilometers is used as an indicator.

Additionally, the variable *crime* depicts the total number of crimes committed in a municipality per 1000 inhabitants per year. Living in a municipality with a large crime rate can increase instability and economic insecurity for the population (Johnson, 2001). Furthermore, immigrants are more often associated with criminal engagement (Martinez & Lee, 2000). Both these mechanisms can explain how increasing criminal rates can result in more support for populist parties since these parties often exclaim people's insecurities and suggest they can provide solutions.

Consequently, the *voter turnout* is added as control variable. The variable is measured as the share of the population that is entitled to vote, that actually went out to vote. The control variable for turnout avoids measuring that the share of populist voting only went up or down just because more people came to vote. It allows to measure the sole effect of the prospective factors on the support for populist parties. It can be suspected that including the voter turnout can cause bias into the model since it is closely related to the populist voting share. Therefore, in appendix A table 6

the main model is estimated without voter turnout as a control variable. This does not change the conclusions about the hypotheses that are discussed in the results chapter since most estimates are insignificant just as in the main model. Thus, the control variable will be kept in the analysis to control for a potential difference in voter turnout that could cause the rise in popularity for populism.

Lastly, an indication of the income in a municipality is added as a last control variable. I control for income since it is suggested that a people with a higher income show different voting behavior than people with a lower income (Martinez-Vazquez, 1981). To indicate the height of income in each municipality the average disposable income of private households, excluding students is used. An extensive description of each variable used in this research can be found in appendix B table 7.

3.3 Descriptive statistics

Combining all this data into one final dataset gives a dataset with 2,463 datapoints in total. The dataset contains values of 352 municipalities with data obtained from the years of 2002, 2003, 2006, 2010, 2012, 2017 and 2021. Appendix C contains the list of all municipalities included in this research. Table 1 presents the descriptive statistics of the data used. The table shows that about 20 percent of the votes between the years 2002 and 2021 in municipalities was for populist parties. Table 8 in appendix D presents the pairwise correlation of all variables included in this research. There is only high correlation between variables that indicate the share of total populist votes, right-wing populist votes and left-wing populist votes. However, since these variables are all dependent variables thus, they will never be in the same regression equation. Therefore, it is not of large concern. Overall, the rest of the values do not suggest high correlation between variables in the data. Additionally, the Variance Inflation Factor (VIF) is estimated to explore more thoroughly if there is potential correlation between the variables in the data. Table 9 in appendix E presents the VIF score for all variables that are used in this research. The estimations of the VIF scores are often used to test if there is multicollinearity in the data (Kim, 2019). The VIF score of the full model is 2.67. Generally, the threshold of 5 is used to determine if there is potential multicollinearity. It implies that when the VIF score is higher than 5, there could be potential multicollinearity in the data (Mansfield & Helms, 1982). All in all, it means that in this research there is no worry for potential multicollinearity since the VIF score of 2.67 is way below this threshold.

Table 1: Descriptive statistics

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Dependent variable					
Populistic voting percentage	2,463	.214	.077	.021	.507
Left wing populistic voting percentage	2,463	.088	.048	.002	.452
Right wing populistic voting percentage	2,463	.127	.067	.017	.414
Independent variables					
Income inequality	2,463	21.125	6.641	0	50
Immigration Western	2,463	.068	.047	0	.388
immigration Non-western	2,463	.033	.025	0	.345
immigration AZC	2,463	.035	.030	0	.211
Unemployment	2,463	.298	.457	0	1
	2,463	.043	.010	.025	.105
Control variables					
Population	2,463	47,3182.9	67,244.35	931	873,338
Share women	2,463	.503	.008	.467	.535
Crime rate	2,463	56.338	23.126	.4	179.8
Elderly people	2,463	.232	.051	.091	.408
Young people	2,463	.204	.037	.082	.388
High educated	2,463	.358	.336	.038	9.991
Low educated	2,463	.241	.157	0	.592
Mobility	2,463	387.169	286.176	26	2,127
Turnout	2,463	.808	.054	.558	1
Income	2,463	38.683	8.765	15.342	89

3.4 Methodology

In the fourth section I describe the methodology that is used to estimate the relationship between the environmental factors and populistic voting. First, I determine which model to use by performing a Hausman test. This test shows that a fixed effect model is preferred. Consequently, the final model is presented.

3.4.1 Justification of the model

The data I use to answer the hypotheses is panel data. This means that the data is longitudinal and the same subjects are observed over a period of time (Hsiao, 2007). In the case of this dataset, the subjects are the municipalities that are observed over a period of time between 2002 and 2021. For panel data the default method is often claimed to be the fixed effects method (Bell & Jones, 2015). However, other methods to analyze panel data are the random effects method or the regular pooled

OLS method (Bell & Jones, 2015). To estimate the coefficients with the pooled OLS model, the following equation is used:

$$\begin{aligned} Populism_{it} = & \beta_0 + \beta_{0.1}income\ inequality_{it} + \beta_{0.2}immigration_{it} + \beta_{0.3}unemployment_{it} \\ & + \beta_{0.4}X_{it} + \beta_{1.0}(immigration_{it} * AZC_{it}) + \varepsilon_{it} \end{aligned} \tag{1}$$

Where $Populism_{it}$ is the share of populist votes in municipality i in year t . $\beta_{0.1}$ and $\beta_{0.3}$ represents the effect of $income\ inequality_{it}$ and $unemployment_{it}$ on the share of populist votes in municipality i in year t . $\beta_{0.2}$ is the coefficient that depicts the effect of the share of immigrants in the population on the populist voting share. $\beta_{1.0}$ displays the interaction effect of the share of immigrants with the presence of an asylum center on the share of populist votes in municipality i in year t . $\beta_{0.4}$ indicates the coefficient of the control variables which are represented by X_{it} . The constant of the model is β_0 and the error term is ε_{it} .

However, the OLS method has a lot of downsides. The pooled OLS method is only perceived to be a good method for panel data if the zero conditional mean holds and if there is no autocorrelation. But, the zero conditional mean is unlikely to hold in most cases, therefore the OLS estimate is often biased and fixed or random effects models are seen as a more suitable models to analyze the panel data (Wooldridge, 1995). To choose between using a fixed effects method or a random effects model, the Hausman test is performed. The Hausman test compares the estimates of the fixed effects model with the random effects model. The Hausman test tests if there are significant differences in the time varying components. If this is the case a random effects model is likely to be biased. If there are no significant differences in the time varying components, a random effects model is most likely to be unbiased and allows to give a more efficient and appropriate estimation (Amini et al., 2012; Hahn et al., 2011).

The null hypothesis of the Hausman test states that the random effects model is preferred. The alternative hypothesis of the Hausman test states that the fixed effects model is preferred. Thus, a fixed effects model is preferred if the test statistics of the Hausman test appear to be significant. The Hausman statistic is estimated with the following equation:

$$H = (\beta_1 - \beta_0)^T [var(\beta_0) - var(\beta_1)]^{-1} (\beta_1 - \beta_0) \tag{2}$$

Where β_1 indicates the estimate of the random effects and β_0 indicates the estimates of the fixed effects and ζ is the pseudo inverse.

The Hausman test is performed for all models used in this research paper. When performing the Hausman test with the data, the test statistic comparing both the fixed effect model and the random effect model gives a significant result in appendix F, table 10, namely a p-value of 0.000 for all estimates. This means I have to reject the null hypothesis which suggests that an analysis with the random effects model is supposed to fit the data best. Therefore, in this research I use a fixed effects model to analyze the data.

3.4.2 Fixed effects

The fixed effects method is often used as an analysis method for panel data. The fixed effects method allows to control for characteristics that are equal for each unit over time to avoid omitted variable bias (Allison & Christakis, 2006; Borenstein & Rothstein, 2010). This works in the following way: in panel data the error term consists of two components. First, the unit heterogeneity which is the part of the error term that is the same for all the observations of one unit (Best & Wolf, 2013). Secondly, there is the idiosyncratic error, which is a time-varying component of the error term and is therefore different for each unit-time observation. Both these components of the error term are not allowed to be correlated with the dependent variable in order to estimate an unbiased causal effect (Drukker, 2003). With a fixed effects estimate it is possible to time demean the data to eliminate the unit heterogeneity. The fixed effects method can thus control for this unit heterogeneity and isolate this from the error term since the unit heterogeneity is constant over time (Giesselmann & Schmidt-Catran, n.d.). Therefore, when using a fixed effects method, it is only necessary to assume that the idiosyncratic error is uncorrelated with the dependent variable since the fixed effects method already controls for the possible time-invariant biases (Econometrics with R, 2023). However, there is one downside to using a fixed effects estimate. The fixed effects method does not allow to estimate the possible effect of time-invariant characteristics on the dependent variable (Plumper & Troeger, 2019). Additionally, an often-mentioned problem with the fixed effects method are measurement errors. The estimation of the fixed effects model is dependent on multiple observations per unit over time. When one of these observations is incorrect, this can negatively influence the estimation of the results (Hill et al., 2020).

3.4.2 Design of the model

As has been discussed in the previous section a fixed effects model controls for time invariant components of each unit. These are the so-called fixed effects in the model. Since in this analysis the units are measured on municipality level, a municipality fixed effect is added to the model. To control for the heterogeneity over the years a time fixed effect is also added. The model is formulated in the equation below.

$$\begin{aligned} Populism_{it} = & \beta_0 + \beta_{0.1}income\ inequality_{it} + \beta_{0.2}immigration_{it} + \beta_{0.3}unemployment_{it} \\ & + \beta_{0.4}X_{it} + \beta_{1.0}(immigration_{it} * AZC_{it}) + Y_i + M_t + \varepsilon_{it} \end{aligned} \tag{3}$$

Where $Populism_{it}$ is the share of populist votes in municipality i in year t . $\beta_{0.1}$ and $\beta_{0.3}$ represents the effect of $income\ inequality_{it}$ and $unemployment_{it}$ on the share of populist votes in municipality i in year t . $\beta_{0.2}$ is the coefficient that depicts the effect of the share of immigrants in the population on the populist voting share. $\beta_{1.0}$ displays the interaction effect of the share of immigrants with the presence of an asylum center on the share of populist votes in municipality i in year t . $\beta_{0.4}$ indicates the effect of the control variables which are represented by X_{it} . Additionally, the municipality fixed effect is indicated by M_t and the time fixed effect is indicated by Y_i . The constant of the model is β_0 and the error term is ε_{it} .

When using only fixed effects on the municipality level, it can be suspected that there could be high multicollinearity in the data. This can be the case since the variation of the variables over time for each municipality can be significantly small. Therefore, when adding a municipality fixed effect, even a larger section of the variation is eliminated. It is also imposed that using fixed effects in such context can lead to overfitting of the data (Babyak, 2004). In order to reduce this possible multicollinearity, but still taking some sort of regional fixed-effect into consideration, it can be appropriate to include fixed effects at the COROP region. The COROP regions are clusters of neighboring municipalities in the same province, designed to conduct regional research in (CBS, 2023a). The division of the COROP regions are designed by Coördinatiecommissie Regionaal Onderzoeks Programma.

COROP regions are still considered to be a geographical classification on a regional level. People often work, go to school or have plenty of social connections that take place within the same COROP region (CBS, 2023a). Additionally, it can be suggested that some unobserved characteristics such as attitudes or the effects of economic shocks are similar among COROP regions. Therefore, adding COROP fixed effects to the model instead of municipality fixed effects will still reduce possible

omitted variable bias, but will also keep some of the variation that was lacking in the model when using municipality fixed effects. All 40 COROP regions are included in the fixed effects estimation. Equation 4 shows the model including the COROP fixed effects.

$$\begin{aligned}
 Populism_{it} = & \beta_0 + \beta_{0.1}income\ inequality_{it} + \beta_{0.2}immigration_{it} + \beta_{0.3}unemployment_{it} \\
 & + \beta_{0.4}X_{it} + \beta_{1.0}(immigration_{it} * AZC_{it}) + Y_i + C_t + \varepsilon_{it}
 \end{aligned}
 \tag{4}$$

Where C_t is the COROP fixed effect in year t .

I follow Spruyt et al. (2016) by estimating the effect of the independent variables on populist voting in both separate models only containing the independent variable of interest and combined models including the other independent variables as controls. The interaction effects of the immigration number with the presence of an asylum center are estimated in a separate combined model to keep this isolated from the coefficients that do not contain an interaction effect.

4. Results

As I have discussed in the previous chapter, in order to analyze the effects that environmental factors have on the populist voting share, both a pooled OLS model and a fixed effect model are estimated. Table 2 contains the estimates of the fixed effects model that displays the effect of income inequality on the populist voting share. Table 4 and 5 contain similar fixed effects estimations for the effects of immigration numbers and unemployment. First, I estimate the results of the estimations of the control variables in the model. Consequently, the hypotheses are discussed together with the main results.

In each table the coefficients are presented of each estimated model together with the constant. Also, in every table contains the between, within and overall R-Squared as a goodness of fit measure. The overall R-Squared is conducted from the weighted average of the between and the within R-Squared. The between or within R-Squared measures the variation in the dependent variable between or within the clusters. The overall R-Squared in a fixed effects method is a weighted average of the within and the between R-Squared and indicates how good this model accounts for both differences between or within clusters (Jaeger et al., 2017).

4.1 Characteristic control variables

Before discussing the main result, I will first discuss the estimated effects of the control variables in the fixed effects model. In table 2, 3, 4 and 5 the variable that indicates the share of women of the total population has a negative and predominantly significant effect on the share of populist votes. This is in line with the findings in the literature which also suggest that men are more likely to vote for populist parties compared to women. The variables that indicate a lower or a higher education level have differing effects among the different models. However, all effects are mostly insignificant and can therefore not be interpreted. The data also shows that the higher the share of older people in a municipality, the higher the populist voting share is. This effect is also generally significant. The share of younger people shows both positive and negative relationships with the populist voting share. However, the effects are mostly insignificant and can therefore not be interpreted.

4.2 Contextual control variables

Next to the characteristic control variables there are also contextual control variables included in the estimated models. Tables 2, 3, 4 and 5 shows that the population size has a negative and significant effect on the share of populist voting. This implies that generally the larger the population of the municipality is, it can be assumed that people are less tended to vote for populist parties. Mobilization was used as a control variable to indicate for the urbanization of the municipality. According to the results in table 4 mobility has a generally negative relationship with the populist voting share. It indicates that if there are more or longer roads in the municipality, there is less populist voting. Although the effect of mobility is only significant for the pooled OLS model and the time fixed effects model. Furthermore, crime rate has a generally positive and significant relationship with the populist voting share. Thus, higher crime rates in the municipality are suspected to have a positive effect on the amount of populist votes. The voter turnout has a negative and significant relationship with the populist voting share. This takes away the concerns addressed earlier that the rise in popularity of populism would be due to a larger turnout. The last contextual control variable is the variable indicating the income of a municipality. This variable has an overall negative and significant effect on the populist voting share.

4.3 Income inequality

Table 2 displays the results of the estimation of the effect of income inequality on the populist voting share per municipality. The first hypothesis states that increased income inequality has a positive effect on the share of votes for populist parties. Column 1 presents the estimations of the simple pooled OLS regression. This estimation shows that when the percentage of income of people

in the 9th and 10th highest percentile of income rises with 1 percentage point, thus income division becomes less equal, that the percentage of populist voting decreases with 0.001 percentage points. The effect is statistically significant at the 1% level.

When controlling for time fixed effects only in column 2, this relationship stays the same but becomes insignificant ($p > 0.10$). Adding the municipality fixed effects in column 3 indicates a positive ($\beta = 0.000$) but insignificant ($p > 0.10$) relationship between income equality and the populist voting share. However, the effect is very small. It is indicated that when the percentage of income of the people in the 9th and 10th highest percentile of income rises with 1 percentage point, thus income division becomes less equal, that the percentage of populist voting increases with 0.000 percentage points. The effect is however statistically insignificant at the 10% level, thus cannot be interpreted since the model does not have enough power to estimate the coefficient precisely.

In column 4 the model is estimated with time and COROP fixed effects. This estimation shows a similar relationship in the fixed effects model with time and municipality fixed effects. The output shows that when the percentage of income of people in the 9th and 10th highest percentile of income rises with 1 percentage point, thus income division becomes less equal, that the percentage of populist voting increases with 0.000 percentage points. Although, the effect appears to be statistically insignificant again ($p > 0.10$). Therefore, the effect cannot be interpreted since the model is unable to estimate the coefficients precisely. Additionally, the effect appears to be very small in all cases. Therefore, it can also be doubted if the effect is economically significant.

In table 3 the results are presented in a model combining all the independent variables. Comparing columns 1, 3, 5 and 7 to the results obtained in table 2, the coefficients of the income inequality variable are very similar both in size, sign and significance. Thus, this supports the findings obtained earlier.

All in all, it is suggested that having a more unequal division of income has a positive relationship with populist voting when looking at the most complete estimation model, which is the model containing the COROP fixed effect. On the other hand, the estimation of the effect of income inequality in the full model is found to be insignificant. Therefore, it is not possible to draw a causal link between income inequality and the populist voting share. Thus, the first hypothesis has to be rejected.

Table 2: regression results from the fixed effects model with the populist voting share as dependent variable and income inequality as the independent variable for the selected years.

Dependent variable = populistic voting share	(1)	(2)	(3)	(4)
	Pooled OLS	Time fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable				
Income inequality	-.001*** (.000)	-.001 (.001)	.000 (.000)	.000 (.001)
Control variables				
Population	-.000 (.000)	-.000 (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-1.660*** (.161)	-1.511*** (.300)	-.140 (.473)	-.672** (.187)
Crime rate	.000 (.000)	.000** (.000)	.000** (.000)	.000** (.000)
Elderly people	.539*** (.039)	.141 (.083)	.320*** (.085)	.110* (.054)
Young people	.124** (.054)	-.341* (.174)	-.138 (.134)	-.075 (.077)
High educated	.126*** (.005)	.024 (.015)	.029** (.013)	.007 (.024)
Low educated	.252*** (.009)	-.010 (.052)	-.024 (.031)	.038 (.042)
Mobility	-.000*** (.000)	-.000** (.000)	.000 (.000)	-.000 (.000)
Turnout	-.612*** (.031)	-.734*** (.093)	-.517*** (.057)	-.553*** (.077)
Income	.000 (.000)	-.003*** (.005)	-.003*** (.001)	-.003*** (.000)
Constant	1.312 (.079)	1.707 (.256)	.777 (.247)	1.073 (.105)
Observations	2,463	2,463	2,463	2,463
Overall R-Squared	.548	.095	.253	.677
Between R-Squared	-	.146	.071	.684
Within R-Squared	-	.501	.733	.690

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Table 3: regression results from the fixed effects model with the populist voting share as dependent variable and all independent variables for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pooled OLS	Pooled OLS	Time fixed effects	Time fixed effects	Time and municipality fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and COROP fixed effects
Independent variables								
Income	-.001*** (.000)	-.001*** (.000)	-.001 (.001)	.001 (.000)	.000 (.000)	.001 (.000)	.000 (.001)	.000 (.001)
inequality								
Immigration	.191*** (.043)	.213*** (.048)	-.042 (.066)	-.044 (.065)	-.316** (.137)	-.315* (.165)	-.138* (.073)	-.138* (.076)
AZC		.004 (.005)		-.008 (.004)		.002 (.011)		-.006 (.005)
Immigration * AZC		-.010* (.056)		-.003 (.042)		.000 (.164)		.015 (.068)
Unemployment	-1.493*** (.176)	- 1.462*** (.177)	.082 (.279)	.145 (.272)	.303 (.243)	.303 (.243)	.216 (.262)	.219 (.261)
Control variables								
Population	-.000 (.000)	.000 (.000)	-.000 (.000)	-.000 (.000)	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000** (.000)
Share women	-1.501*** (.167)	- 1.512*** (.167)	-1.486*** (.285)	-.142*** (.265)	-.171 (.471)	-.173 (.472)	- .606*** (.175)	- .572*** (.172)
Crime rate	.000 (.000)	.000 (.000)	.000** (.000)	.000** (.000)	.000* (.000)	.000* (.000)	.000 (.000)	.000* (.000)
Elderly people	.474*** (.039)	.478*** (.039)	.147 (.084)	.144 (.085)	.315*** (.083)	.316*** (.084)	.135** (.060)	.134** (.057)
Young people	.018 (.056)	.032 (.055)	-.329* (.175)	-.327 (.181)	-.025 (.144)	-.024 (.145)	-.036 (.085)	-.032 (.084)
High educated	.127*** (.005)	.127*** (.005)	.024 (.015)	.025 (.017)	.027* (.014)	.027* (.014)	.008 (.024)	.008 (.024)
Low educated	.269*** (.009)	.269*** (.009)	-.010 (.051)	-.013 (.052)	-.018 (.031)	-.017 (.031)	.036 (.042)	.035 (.042)
Mobility	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000** (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	-.000 (.000)
Turnout	-.669*** (.035)	-.668*** (.035)	-.739*** (.099)	-.735*** (.097)	-.502*** (.060)	-.502*** (.060)	- .559*** (.080)	- .560*** (.080)
Income	.001** (.000)	-.000** (.000)	-.003*** (.005)	-.004*** (.000)	-.003*** (.001)	-.003*** (.001)	- .003*** (.001)	- .003*** (.001)
Constant	1.392 (.080)	1.389 (.082)	1.693 (.256)	1.658 (.248)	.762 (.246)	.762 (.246)	1.030 (.097)	1.013 (.096)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	0.511	0.566	0.090	0.083	0.134	0.239	0.673	0.676
Between R-Squared	-	-	0.151	0.165	0.009	0.056	0.634	0.655
Within R-Squared	-	-	0.502	0.505	0.599	0.239	0.693	0.693

Notes: *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.10$. Standard error in parentheses. Number of individual observations: 2,463.

4.4 Immigration

Table 4 shows the results of the estimation of the relationship between the immigrant share and the populist voting share in a municipality. In the first column the estimation of the pooled OLS model is presented. As expected, immigration has a positive ($\beta = 0.121$) and significant ($p < 0.01$) effect on the populist voting share. The estimation shows that when the percentage of immigrants of the total municipality population rises with 1 percentage point, the percentage of populist voting share increases with 0.121 percentage points. This is in line with the second hypothesis which states that an increase in the immigrant share has a positive effect on the populist voting share.

Column 3 shows the estimations of the fixed effects model with only time fixed effects. According to this estimation a rise in the share of immigrants relative to the population has a negative ($\beta = -0.026$) and insignificant ($p > 0.10$) effect on the populist voting share. Therefore, the effect cannot be interpreted.

Adding municipality fixed effects to the model in column 5 results into a larger negative relationship of $\beta = -0.301$. The coefficient is however significant ($p < 0.05$). This means that when the percentage of immigrants of the total population rises with 1 percentage point, that the percentage of populist voting decreases with 0.301 percentage points.

In column 7 the estimation of the fixed effect model with time and COROP fixed effects is presented. Similar to the fifth model, the estimation is again negative ($\beta = -0.123$) and significant ($p < 0.10$). This means that when the percentage of immigrants of the total population rises with 1 percentage point, that the percentage of populist voting decreases with 0.123 percentage points.

Looking at the combined model in table 3, it appears that the size, sign and significance are similar to the model estimated in table 4. This leads to similar interpretation of the results that are discussed earlier in this paragraph.

All in all, it can be implied that a larger share of immigrants relative to the population has a negative and significant effect on the populist voting share. This is against the expectations from the literature and the second hypothesis. Therefore, the second hypothesis has to be rejected.

In the previously described estimation, all immigrants are generalized into one estimated variable. It is however not expected that western and non-western immigrants are equally integrated in society. According to Morosini et al. (1998) it is more difficult to integrate into a foreign culture when the distance to your own culture is larger. In the Netherlands this means that must be harder for non-western immigrants to integrate in society compared to western immigrants. Thus, the effect of

immigrants for these groups can have different effects on the populist voting share. Therefore, in appendix G table 11 these effects are estimated separately.

According to the full model incorporating COROP and time fixed effects, the rise of one percentage of non-western immigrants in a municipality, results in a decrease of the populist voting share. Thus, if the percentage of non-western immigrants relative to the total population of the municipality increases with 1 percentage point, the percentage of populist voting share decreases with 0.168 percentage points. The effect is however insignificant at the 10% level and can therefore not be interpreted. According to the full model in column 8, the rise of western immigrants also has a negative effect on the populist voting share in the municipality. This means that when the percentage of western immigrants relative to the total population of the municipality increases with 1 percentage point, the populist voting share decreases with 0.149 percentage points. The effect is significant at the 5% level.

All in all, when separating the effects of non-western and western immigrants it can be concluded that the increase of non-western immigrants has a negative but insignificant effect on the populist voting share. For western immigrants this effect is also negative but significant. These results still do not comply with what is stated in the second hypothesis. Therefore, the second hypothesis will remain rejected.

4.4.1 AZC

To test whether the presence of an asylum center (AZC) in the municipality indicates a stronger positive relationship of immigrants on the populist voting share, its interaction effect is estimated in table 4. This relationship is also formulated in the third hypothesis which states that increased immigration numbers have a positive effect on the share of votes for populist parties and the effect is larger for municipalities with an asylum center compared to municipalities that do not have an asylum center. According to the pooled OLS model in column 2 the relationship of immigrants and populist voting is 0.134 percentage points more negative when an AZC is present in the municipality. The effect is significant at the 5% level. When using a fixed effects regression with time fixed effects in column 4, this interaction effect is still negative ($\beta = -0.001$) but insignificant ($p > 0.10$). In column 6 both time and municipality fixed effects are included in the model. The model estimates that the presence of an AZC indicates a more negative effect ($\beta = -0.004$) of immigration on the populist voting share compared to municipalities that do not have an AZC. However, this effect again appears to be insignificant. The last column of table 4 contains the model with the COROP and time fixed effects. This model implies that there is a negatively mediating effect ($\beta = -0.019$) of an

AZC on the relationship of immigrants on the populist voting share. But again, the relationship is not significant ($p > 0.10$).

Estimating the combined model in table 3 the size, sign and significance of the interaction effect is almost identical to the estimation of the separate effects in table 4. Thus, this supports the results that are described earlier.

In conclusion, the presence of an AZC has, according to the different models, a negatively mediating effect on the relationship of the share of immigrants and the populist voting percentage. Although, the effect in the complete model appears to be insignificant. Therefore, the estimations cannot be done precisely and thus the third hypothesis has to be rejected.

4.5 Unemployment

In table 5 the estimations are presented regarding the research of hypothesis 4. The fourth hypothesis states that increased unemployment numbers have a positive effect on the share of votes for populist parties. In the first column of table 5 the estimates of the pooled OLS regression are presented. This model estimates that if the percentage of unemployed workers relative to the working force increases with 1 percentage point, the percentage of populist voting decreases with - 1.138 percentage points. The effect is statistically significant at the 1% level.

The second column shows the estimates of the fixed effects model with time fixed effects. The estimate shows that a higher unemployment rate has a negative ($\beta = -0.147$) effect on the populist voting share. However, this effect is statistically insignificant at the 10% level for the time fixed effects model. The third column presents the estimates of the coefficients of the fixed effects model with both time and municipality fixed effects. In this model a positive ($\beta = 0.140$) and insignificant ($p > 0.10$) effect is found between the relationship of unemployment and the populist voting share. The final model with both time and COROP fixed effects is estimated in column 4. The effect is now negative ($\beta = -.068$) but still insignificant ($p > 0.10$).

In table 3, the results of the estimation of the combined model including all independent variable are presented. These estimations display similar insignificant results compared to the estimations in table 5.

To conclude, having a higher percentage of unemployment appears to be both positively and negatively related to the populist voting share. The models that estimate a positive relationship are in line with what is expected in the fourth hypothesis, where is also stated that this relationship is positive. However, most estimations seem to indicate an insignificant effect and cannot be interpreted. Therefore, the fourth hypothesis has to be rejected.

Table 4: regression results from the fixed effects model with the populist voting share as dependent variable and immigration as the independent variable for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pooled OLS	Pooled OLS	Time fixed effects	Time fixed effects	Time and municipality fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and COROP fixed effects
Independent variable								
Immigration	.121*** (.042)	.152*** (.046)	-.026 (.070)	-.025 (.071)	-.301** (.135)	-.299* (.163)	-.123* (.066)	-.124* (.069)
AZC		.005 (.005)		-.009 (.005)		.002 (.011)		-.006 (.005)
Immigration * AZC		-.134** (.059)		-.001 (.041)		-.004 (.165)		-.019 (.066)
Control variables								
Population	-.000** (.000)	-.000 (.000)	-.000* (.000)	-.000* (.000)	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000** (.000)
Share women	- 1.919*** (.174)	- 1.924*** (.172)	- 1.403*** (.317)	- 1.331*** (.294)	-.166 (.468)	-.167 (.469)	-.566*** (.162)	- .530*** (.159)
Crime rate	.000 (.000)	.000 (.000)	.000** (.000)	.000** (.000)	.000* (.000)	.000* (.000)	.000* (.000)	.000** (.000)
Elderly people	.563*** (.037)	.566*** (.037)	.128 (.085)	.125 (.085)	.308*** (.082)	.308*** (.084)	.131** (.059)	.130** (.056)
Young people	.156*** (.048)	.172*** (.047)	-.370** (.166)	-.367* (.170)	-.032 (.143)	-.032 (.144)	-.046 (.078)	-.043** (.077)
High educated	.125*** (.005)	.125*** (.005)	.028 (.018)	.029 (.002)	.028* (.013)	.028** (.014)	.009 (.024)	.009 (.023)
Low educated	.258*** (.009)	.258*** (.009)	-.018 (.049)	-.021 (.051)	-.020 (.031)	-.020 (.031)	.033 (.040)	.032* (.039)
Mobility	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000** (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	-.000 (.000)
Turnout	-.617*** (.030)	-.617*** (.030)	-.721*** (.115)	-.720*** (.114)	-.505*** (.049)	-.505*** (.049)	-.565*** (.071)	- .567*** (.071)
Income	-.000*** (.000)	-.000** (.000)	-.003*** (.276)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	- .003*** (.001)
Constant	1.425 (.084)	1.421 (.084)	1.651 (.276)	1.617 (.268)	.783 (.244)	.783 (.243)	1.027 (.089)	1.010 (.088)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.548	.549	.106	.097	.237	.238	.673	.675
Between R-Squared	-	-	.132	.147	.057	.057	.639	.660
Within R-Squared	-	-	.499	.502	.734	.734	.692	.693

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Table 5: regression results from the fixed effects model with the populist voting share as dependent variable and unemployment as the independent variable for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)
	Pooled OLS	Time fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable				
Unemployment	-1.138*** (.180)	-.147 (.256)	.140 (.241)	-.068 (.209)
Control variables				
Population	-.000 (.000)	-.000 (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-1.597*** (.159)	-1.409*** (.328)	-.122 (.478)	-.651** (.178)
Crime rate	.000 (.000)	.000** (.000)	.000** (.000)	.000** (.000)
Elderly people	.608*** (.036)	.127 (.084)	.323*** (.086)	.108* (.053)
Young people	.221*** (.042)	-.373* (.167)	-.140 (.135)	-.079 (.072)
High educated	.123** (.005)	.027 (.017)	.029** (.013)	.007 (.025)
Low educated	.271*** (.009)	-.018 (.050)	-.023 (.031)	.037 (.039)
Mobility	-.000*** (.000)	-.000** (.000)	.000 (.000)	.000 (.000)
Turnout	-.717*** (.033)	-.726*** (.101)	-.490*** (.057)	-.554*** (.070)
Income	-.001*** (.000)	-.003*** (.001)	-.003*** (.001)	-.003*** (.000)
Constant	1.389 (.076)	1.665 (.277)	.745 (.249)	1.067 (.094)
Observations	2,463	2,463	2,463	2,463
Overall R-Squared	.554	.107	.256	.677
Between R-Squared	-	.131	.073	.681
Within R-Squared	-	.499	.732	.690

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

5. Robustness analysis

5.1 Control variables with lag

In the main analysis all data for both the independent and the control variables originates from the same years that the elections took place. According to Reed (2015), individual decisions do not only depend on the context of the present year but also on the context of previous years. Most measures from the CBS are conducted on January first of the target year, with some exceptions. Since the elections are often held in March, it can benefit to use the lag to account for the fact that most of the information one's choice is based on can lie in the past. To test if this gives different results, which then should be reconsidered, I estimate two different new models. First, the independent variable is substituted for the value of the year previous to the election. Secondly the contextual control variables *crime rate*, *mobility* and *income* are included with the value of the year previous to the election. The lag of *turnout* is left out in the estimation since it is impossible to include this value of the year before the election. Only the robustness of the models that are considered to be most complete, thus the models including the municipality or the COROP fixed effects, are tested.

When looking at the results of both estimations in appendix I tables 13 and 14 there are no large differences between the estimations of the models including the lag, in comparison to the main estimation model. Generally, all signs and significances are similar in comparison to the main estimations. Overall, it shows that there are no large differences in the estimations conducted from the robustness analysis. This also means that the previously stated conclusions about the hypotheses do not change.

5.2 Random effects model

In the third section of this paper I explain that since the data is panel data either a pooled OLS, random or fixed effects model is possibly the best method of analysis for this research. After eliminating the pooled OLS model, a Hausman test is performed to determine if either the random or fixed effect model is the best fit to analyze the data. According to the Hausman test the fixed effects model is the best model for this analysis. However, some researchers state that the Hausman test is not an accurate test to test methodologies. Research by Chmelarova (2007) states that it is for instance not possible to use the Hausman test when the data is heteroskedastic. As suggested by Schreiber (2008), in some cases the test results can be inaccurate and therefore one must be careful when interpreting the results of the Hausman test. Overall, the Hausman test is a good indication but it is not always accurate and should thus be used with care (Breusch & Mizon, 1984). To test if the results differ between the two models, I will also estimate the results of a random effects model. This

to control for the situation if the Hausman test has failed when informing that the fixed effect method is the best method of analysis.

For the random effects estimation, the same dependent, independent and control variables are used as in the fixed effects estimation. The data originates from the years of 2002, 2003, 2006, 2010, 2012, 2017 and 2021 and is collected from 352 municipalities. In comparison to the fixed effect model, the random effect model controls for factors that randomly vary between individuals. For these factors is accounted by implementing a random effect into the model. The model controls for the random variation between the units or groups in the dataset (Borenstein & Rothstein, 2010). The random effects model is presented in the following equation:

$$\begin{aligned} Populism_{it} = & \beta_0 + \beta_{0.1}income\ inequality_{it} + \beta_{0.2}immigration_{it} + \beta_{0.3}\ unemployment_{it} \\ & + \beta_{0.4} X_{it} + \beta_{1.0}(immigration_{it} * AZC_{it}) + v_{ij} * u_i + \varepsilon_{it} \end{aligned} \tag{5}$$

Where $Populism_{it}$ is the share of populist votes in municipality i in year t . $\beta_{0.1}$ and $\beta_{0.3}$ represents the effect of $income\ inequality_{it}$ and $unemployment_{it}$ on the share of populist votes in municipality i in year t . $\beta_{0.2}$ is the coefficient that depicts the effect of the share of immigrants in the population on the populist voting share. $\beta_{1.0}$ displays the interaction effect of the share of immigrants with the presence of an asylum center on the share of populist votes in municipality i in year t . $\beta_{0.4}$ indicates the effect of the control variables which are represented by X_{it} . Additionally, the covariate factor is v_{ij} and the random effects parameter is u_i . The constant of the model is β_0 and the error term is ε_{it} .

In appendix J, table 15 column 1 and 2 present the results of the estimations of the random effects model for the effect of income inequality. When comparing the estimations of the effect of income inequality on the populist voting share it shows that both models give slightly different estimations. Where the estimations in the main models in table 2 are both positive ($\beta = .000$ and $\beta = .000$) and insignificant ($p > 0.10$), the estimation of the random fixed effect clustered for COROP regions are both negative ($\beta = -.001$ and $\beta = -.001$) and significant for both models. The results imply that when the percentage of income in the 9th and 10th highest percentile of earners rises with 1 percentage point, thus income division becomes less equal, the percentage of populist voting decreases with 0.001 percentage points. This is not in line with the first hypothesis.

In column 3 and 4 of appendix J table 15 the estimations of the effect of immigration on the populist voting share are presented. These results are compared to the fixed effects estimation of

this effect in table 4. According to the random effects model the rise of immigrants has a positive ($\beta = .153$ and $\beta = .044$) effect on the populist voting share. However, the effect is not significant. The estimations of the fixed effect model suggested that this relationship was negative ($\beta = -.301$ and $\beta = -.123$) and significant ($p > 0.10$). Although the estimates of the random effects model are opposed to the results in the fixed effects model, due to their significance the estimations are still considered to be fairly robust. The negative effect of the interaction effect of the AZC in column 5 and 6 from table 15 is similar to the negative effect found in the estimates of the fixed effects model. Thus, comparing these models, there are no large differences.

The last two columns of appendix J table 15 display the coefficients of the relationship between unemployment and the populist voting share estimated with the random Effects model. These results are overall in line with the results obtained in the fixed effects model in table 5. The only slight difference between the obtained results is that the estimations of the random effects model are statistically significant compared to statistically insignificant coefficients in the fixed effects model. The signs do generally comply.

5.3 Left- and right-wing populism

In the main estimation the share of populist votes is generalized since this research is interested in the general motivation behind populist voting. Although there are differences between populist parties. One of the most well-known difference in populism is the discrepancy between left- and right-wing populism. According to Otjes and Louwse (2015) left-wing populism is focused on socio-economic issues. Left-wing populists impose that politicians only have an eye for the richer or more successful individuals and disregard the regular working man. On the other hand, right-wing populism is expected to focus on a different perspective. Right-wing populist parties are more often focused on nativism. This implies that only native people should be living in their country (Mudde, 2007). Additionally, right-wing populists take a more central position on socio-economic problems (de Lange, 2012). All in all, the most prevalent discrepancy between left- and right-wing populism is that right wing populism is more often focused on anti-immigration policies and left-wing populism on socio-economic minorities. A similarity between left- and right-wing populism is that both are anti-elite and willing to represent the 'ordinary' people (Otjes & Louwse, 2015).

Since it is now established that the motivations of both left- and right-wing populism are different, it can be suspected that the factors explaining populist voting behavior have differing results for both the left- and right-wing populist voting share. To estimate the potential differentiating effect, two estimations are performed. Instead of aggregating both left- and right-wing populism into one dependent variable I perform both estimations separately for left-wing populism and right-wing populism. Left-wing populism depicts the share of votes that is gone

towards the Socialistic Party (SP) which is considered to be a left-wing populist party. Right-wing populism contains the share of votes that is gone towards Lijst Pim Fortuyn (LPF), the Freedom party (PVV), Forum voor Democratie (FVD), Boer Burger Beweging (BBB) and JA21. This results into two models:

Right_populism_{it}

$$= \beta_0 + \beta_{0.1}income\ inequality_{it} + \beta_{0.2}immigration_{it} + \beta_{0.3}unemployment_{it} + \beta_{0.4}X_{it} + \beta_{1.0}(immigration_{it} * AZC_{it}) + Y_i + C_t + \varepsilon_{it}$$

(6)

Left_populism_{it}

$$= \beta_0 + \beta_{0.1}income\ inequality_{it} + \beta_{0.2}immigration_{it} + \beta_{0.3}unemployment_{it} + \beta_{0.4}X_{it} + \beta_{1.0}(immigration_{it} * AZC_{it}) + Y_i + C_t + \varepsilon_{it}$$

(7)

Where *Right_populism_{it}* is the share of right-wing populist votes in municipality *i* in year *t*. And where *Left_populism_{it}* is the share of left-wing populist votes in municipality *i* in year *t*.

To assess the robustness of the main analysis, I compare the estimates of appendix K tables 16 and 17 with tables 2, 3, 4 and 5. When I compare the estimates of the effect of income inequality of the main estimation and the estimation with the left-wing populist voting, some differences can be detected. In the model with left-wing populist voting it is implied that income inequality has a negative relationship to left-wing populist voting share. In the main model this relationship is positive. The effect is only significant for the model with the municipality fixed effects. For the estimates with the right-wing populist votes as the dependent variable, the estimates of the model with the municipality fixed effects are similar to the main model. Although the model with the COROP and time fixed effect shows a positive ($\beta = 0.000$) and significant ($p < 0.01$) relationship. This implies that when the percentage of income earned in the 9th and 10th highest percentile earners rises with 1 percentage point, thus income division becomes less equal, the percentage of populist voting increases with 0.000 percentage points. These results are in line with the hypothesis.

Consequently, both the estimates of the effect of immigrants on left- and right-wing populism indicate a negative and (with exception of the COROP and time fixed effects model for left-wing populism) significant relationship. These estimates are in line with the results of the main estimation in table 4. For the interaction effect with the presence of an asylum center, both the

models with left- and right-wing populism as the dependent variable indicate a positive ($\beta = 0.073$, $\beta = 0.001$, $\beta = 0.077$ and $\beta = 0.083$) but insignificant ($p > 0.10$) relationship to the populist voting share. The main model in table 4 shows a negative relationship. However, this relationship is also indicated to be insignificant. Therefore, both coefficients cannot be interpreted.

Lastly, the relationship of unemployment and left-wing populism is shown to be positive ($\beta = 0.757$ and $\beta = 0.674$) and significant ($p < 0.01$). It means that when the percentage of unemployed workers relative to the working force increases with 1 percentage point, the percentage of populist voting increases with 0.757 or 0.674 percentage points. For the model with right-wing populism these coefficients indicate both a positive and negative relationship. For the model with the municipality and time fixed effects, this relationship is positive ($\beta = 0.617$) and significant ($p < 0.01$). The model with COROP and time fixed effects implies a negative ($\beta = -0.742$) and significant ($p < 0.01$) effect. The main model in table 5 also shows a negative coefficient for the model with the municipality fixed effects and a positive coefficient for the model with the COROP fixed effects. Although, these estimates are all insignificant ($p > 0.10$).

All in all, comparing all coefficients of both models with left- and right-wing populism as the dependent variable, there are plenty of similarities in the sign and significance of the estimations of both models. In comparison to the main model in tables 2, 3, 4 and 5, only the estimate of income inequality seems to be slightly different. However, these results in the main estimation are insignificant. Therefore, it can be assumed that the results are overall robust.

5.4 Large and small municipalities

In the estimations that are presented in the fourth chapter there is only controlled for municipality size by adding a control variable indicating the number of inhabitants. Large municipalities can be different compared to small municipalities. Large municipalities generally operate more efficiently compared to smaller municipalities (De Borger et al., 1994). This is probably one of the reasons of the many mergers that took place in the last decades. It is suggested that larger or more urbanized municipalities are for instance more familiar with immigrants (Gibson, 1997). Additionally, income inequality is expected to be larger in more densely populated areas such as cities (Clough-Gorr et al., 2015). This all suggest heterogeneity between large and small municipalities and one can wonder if it is enough to control for this by only adding population size as a control variable.

To control for these differences more thoroughly, I separate the dataset for both small and large municipalities. The separation is to test if the estimated main results are not biased due to the observable differences between small and large municipalities. The list from Regio Atlas is used to determine what municipalities are large and what municipalities are small. Regio Atlas considers

municipalities with a population higher than 50.000 inhabitants to be large (Regio atlas, 2023). The rest of the municipalities are considered to be small municipalities. To test if the results of large and small municipalities are different compared to the main estimation in tables 2, 3, 4 and 5, two fixed effects models are estimated. The first model contains only large municipalities in its estimation. The second model contains only the small municipalities. The results of the estimations can be found in appendix L tables 18 and 19. Overall, the results of the separate estimates of the independent variables for large and small municipalities are very similar in sign and significance. Comparing these results to the main estimation in tables 2,3, 4 and 5, the estimates of the independent variables also show similar sign and significance. The only small difference between the models is that the estimates of the large and small municipalities separately show generally more significant coefficients compared to the main estimation. Overall, the results are suggested to be robust.

6. Conclusion, discussion and limitations

6.1 Conclusion

In previous literature populism has become a topic of increasing interest. The different factors that could lead to increased support for populism are extensively investigated. According to previous research, factors such as personality, education or age can have a significant effect on one's decision to vote for a populist party (Bakker et al., 2016; Betz, 1994; Spierings & Zaslove, 2015, 2017; Verba et al., 1997). Next to personal factors, environmental factors are also important determinants of voting behavior and are also imposed to influence the populist voting share (Pattie & Johnston, 1998). It is generally suggested that these environmental factors are as much of importance as the effect of personal factors on voting behavior and should therefore not be neglected (Pattie & Johnston, 1998). When people are exposed to certain environmental conditions, this can have a significant effect on their perceptions and therefore affect their voting behavior (Weng, 2015). In this research I have investigated the causal effect that environmental factors have on the populist voting share in Dutch municipalities. The external factors that are investigated in this research are income inequality, immigration and unemployment in order to answer the following research question:

How do environmental factors influence the popularity of populist voting in the Netherlands?

This research attempts to close the gap in the literature where no research is currently conducted on the effect of income inequality, immigration and unemployment on the populist voting share combined in one research. Previous literature only provides estimations or studies on the effect of a

singular factor on populist voting, but not how factors can act together in a single country study. To be able to execute this research, I use data on the municipality level to estimate the possible effects of these environmental factors on the populist voting share. To be able to estimate these effects a fixed effects method is used with the populist voting share as the dependent variable and indications for income inequality, immigration and unemployment as the independent variable. All time, municipality and COROP fixed effects are included to estimate the model. Also, I add an interaction effect of the presence of an asylum center to the immigration coefficient to estimate its mediating effect. The data originates from the Kiesraad and the CBS to test my stated hypotheses. These hypotheses are then aggregately used to find an answer to my main question.

The results of the fixed effects estimate do not support the first hypothesis which states that an increase in income inequality has a positive effect on the populist voting share in a municipality. According to the results the effect of income inequality does indicate a positive relationship with the populist voting share as was expected. However, the effect seems to be both economically and statistically insignificant. The second hypothesis states that an increase in the number of immigrants in the municipality has a positive effect on the populist voting share. I find contrary evidence for this. According to the results of the main model, an increase in the number of immigrants in the municipality has a negative and significant effect on the populist voting share. The suspected positively moderating effect of the presence of an asylum center in the municipality is negative. Additionally, the effect appears to have insignificant statistical power. As the fourth hypothesis states, increasing unemployment in the municipality is expected to have a positive effect on the populist voting share. According to the results, unemployment appears to be both negatively and positively related to the populist voting share. This is both contrary and supportive to what is suggested from the literature. Although, since these effects are statistically insignificant, they cannot be interpreted. It means that also the fourth hypothesis has to be rejected. Lastly, the results that are estimated in the main model are generally robust according to the performed robustness checks.

To answer the research question, from the results of my research I can say that immigration is the only statistically significant factor that is expected to influence populist voting. All in all, an increasing number of immigrants has a negative effect on the populist voting share in a municipality. Thus, more immigrants in a region lead to less populist votes. Additionally, it cannot be stated that income inequality has a positive effect on the populist voting share. This since the effect is found to be both economically and statistically insignificant. Lastly, the effect of unemployment shows heterogeneous effects on the populist voting share, but is found to be insignificant.

6.2 Discussion

As found in the estimation of the fixed effects model, and as in line with most of the literature, the effect of the increase of income inequality on the populist voting share is positive. Scholars generally argue that this relationship has to be positive since unequal distribution of economic resources, such as income, lead to more dissatisfaction among voters. Overall, equality is preferred over inequality by voters (Pástor & Veronesi, 2021b). This dissatisfaction from inequality can turn them against the established order and make them seek for representation elsewhere. Populistic parties often provide more support for their opinion by going against the established order. Thus, the increase of income inequality and the populist voting share are expected to be positively related to each other (Inglehart & Norris, 2016). However, the estimated coefficient appears to have a statistically insignificant effect in the estimated model. A reason for the insignificance can be that the measure of income inequality used is not very accurate (Rabinovich, 2006). In the estimation the percentage earned from the total income in the 9th and 10th highest earning percentile is used as an indication of the income inequality in the municipality. Although it is not the most accurate measure of income inequality. Measures such as the Gini Coefficient measure income inequality more accurately and are initially created for this purpose (Rey & Smith, 2013). Although the measure was not available for the years and municipalities investigated in the research. Therefore, the first mentioned measure was used to give an indication of the income inequality per municipality. Since the measure might only be of mediocre representation of income inequality in the municipality, it can cause the coefficient to be statistically insignificant.

Unexpectedly, a higher immigration number in a municipality has a negative and significant effect on the populist voting share. As implied by Chiswick (1999) immigrants choose, if possible, their destination of arrival tactically. Overall, most immigrants locate in the city or more urbanized areas where other immigrants are present as well (Zorlu & Mulder, 2008). Additionally, it is often easier to find housing and to culturally and socially integrate in the city in comparison to smaller villages (Entzinger, 2019). This can mean that the regions where immigrants choose to locate are more immigrant friendly. In these regions the native people are also more used to immigrants compared to other regions (Entzinger, 2019). Thus, this can lead to the expected positive relationship between immigration numbers and the populist voting share to turn out to be negative. Since regions with a high immigration number might not experience the negative effects of immigrants in such a strong way, it can reverse the expected positive effect that can be present in the less immigrant friendly regions. This would impose that the relationship of immigration and the populist voting share should be negative.

Additionally, contrary to what was expected from the literature, the presence of an AZC is negatively mediating the effect of the immigration number on the populist voting share. This effect is however insignificant. As I have previously discussed the location of the asylum centers are dependent on availability of location and not on the willingness of the inhabitants of the municipality. Also, refugees cannot choose which asylum center they are placed in. Therefore, the negative relationship that is found cannot be related to what is stated in the previous paragraph. Some literature provides evidence for the fact that not in all cases the presence of more asylum seekers leads to a negative attitude towards immigrants (Turkoglu et al., 2022). This could explain part of the negative mediating relationship. However, combining the instant rise in immigration, for instance with the presence of an asylum center, with research on voting behavior, no support is found for this possible negative relationship (Gessler et al., 2022). Therefore, as far as I am concerned, there is no scientific evidence for the negative mediating relationship of the presence of an asylum center. Although, the effect appears to be insignificant. This means that the model does not have enough statistical power to estimate its actual effect. Thus, one cannot be sure if the actual mediating effect is negative.

For the effect of unemployment on the populist voting share, the effect is both positive and negative depending on the model. This is different compared to the suspected positive effect from the literature. However, the estimates appear to be statistically insignificant. According to most research it is suspected that increased unemployment leads to dissatisfaction which can make people more drawn towards anti-establishment parties (Cox, 2017; Essletzbichler et al., 2018; Passari, 2020). A motivation for the obtained insignificant effect in the multiple models can lie in the differences between sorts of unemployment. Some people are unemployed by choice and are therefore not dissatisfied with their unemployed position, for instance people who are supported by their spouses. Additionally, it can also be the case that people quit their jobs because they were unhappy with their previous job and are better off looking for something else. These sorts of unemployment would not provide a motive for increased populist voting. Since I have not distinguished between these possible different causes of unemployment, this can make it hard for the model to estimate the effect on the populist voting share and lead to these insignificant results.

6.3 Limitations

An important note to make at the end of this research is that the observation period considered in the paper is the period when populism became increasingly popular in the Netherlands. As stated previously, populism became most popular in Dutch politics around the year of 2000 with Pim Fortuyn entering the Dutch political landscape. It means that the research is only conducted for this

period of time with increasing interest in populism. Since it is not known if the trend of populism will continue, or that another political stream will become popular, this research will not provide much information on past or future trends. An important reason to why I have not used years previously to 2002 was the lack of data availability for the independent variables of that period. Therefore, the first election that could be used was the election of 2002 to provide a complete dataset. For further research I would recommend analyzing different time periods if data would become available. Otherwise, one could consider performing an analysis for different countries where populism is less popular in order to estimate the possible effects of the different factors when populism is not in its prime.

An additional limitation of this research is that the data on the dependent variable is unable to be measured separately between groups. This plays an important role when analyzing the relationship between the number of immigrants and the populist voting share. In that case one is unable to control for the share of immigrants that actually has the power to vote. Together with the fact that this makes it impossible to isolate impact of the votes on the populist voting share of the native Dutch and the immigrants. Thus, it means that the estimated coefficient does not reflect the attitude of native people towards immigrants embedded in the populist voting share. The effect also includes the attitudes of immigrants themselves and how this reflects on the populist voting share. All in all, this could mean that the effect is possibly underestimated. Additionally, only legal immigrants are included in the data since illegal immigrants are not registered. All together it could lead to a biased view of the effect of the immigration size on the populist voting share.

Furthermore, there is an important limitation of the fixed effects method. As described earlier in the methodology, the fixed effects method is able to control for time and unit fixed effects. One issue that arises with including these fixed effects is that the model is unable to estimate the effect of the constant factors over time, or the so-called time-invariant effects. Therefore, the fixed effects model only includes the effects of time-varying components in the coefficients. However, time-invariant components could possibly also impact the dependent variable. Thus, an important limitation of the fixed effect model is that it is unable to include the time-invariant effect into the estimated coefficients. In this regard, one has to weigh up the cons of using a pooled-OLS against being able to include these time-invariant effects. Or, on the other hand, deciding to exclude the time-invariant effects but maybe having a better estimation model with the fixed effect model.

Lastly, as mentioned in the discussion, a limitation of this research is the unavailability of a complete measure of income inequality. As mentioned previously, a measure such as the Gini Coefficient would be a possible better indicator to measure income inequality. Although it is argued that using the share of household incomes per quintile is also a good measure, the Gini coefficient is often seen as a better indicator (United States Census Bureau, 2023). This measure is however not

available to use for this research. The Gini Coefficient measured per municipality was only available for the year of 2019, 2020 and 2021. These three time points were not sufficient to provide for the whole dataset. Thus, it can limit the model in estimating the effect of income inequality on the populist voting share. To solve this, one can limit the research to the election year of 2021 to estimate the effect of income inequality on the populist voting share in that year only.

All in all, I think it is very important to use the information and insights provided from this research in order to gain insights in the populist voting behavior of the Netherlands. Although not all factors showed significant or the expected relationships, this research can still be used as a steppingstone for further investigation on this topic.

References

- Abou-Chadi, T., & Helbling, M. (2018). How Immigration Reforms Affect Voting Behavior. *Political Studies*, 66(3), 687–717. <https://doi.org/10.1177/0032321717725485>
- Akkerman, A., Zaslove, A., & Spruyt, B. (2017). ‘We the People’ or ‘We the Peoples’? A Comparison of Support for the Populist Radical Right and Populist Radical Left in the Netherlands. *Swiss Political Science Review*, 23(4), 377–403. <https://doi.org/10.1111/SPSR.12275>
- Alesina, A., & Stantcheva, S. (2020). Diversity, Immigration, and Redistribution. *AEA Papers and Proceedings*, 110, 329–334. <https://doi.org/10.1257/pandp.20201088>
- Algan, Y., Guriev, S., Papaioannou, E., & Passari, E. (2017). The European Trust Crisis and the Rise of Populism. *Brookings Papers on Economic Activity*, 2017(2), 309–400. <https://doi.org/10.1353/eca.2017.0015>
- Allison, P. D., & Christakis, N. A. (2006). Fixed-effects methods for the analysis of nonrepeated events. *Sociological Methodology*, 36(1), 155–172. <https://doi.org/10.1111/J.1467-9531.2006.00177.X>
- Allport, G. W., Clark, K., & Pettigrew, T. (1954). The nature of prejudice.
- Amini, S., Delgado, M. S., Henderson, D. J., & Parmeter, C. F. (2012). Fixed vs random: the Hausman test four decades later. *Emerald Group Publishing Limited.*, 29, 479–513.
- Andersen, R., & Fetner, T. (2008). Economic Inequality and Intolerance: Attitudes toward Homosexuality in 35 Democracies. *American Journal of Political Science*, 52(4), 942–958. <https://doi.org/10.1111/j.1540-5907.2008.00352.x>
- Anderson, C. J., & Beramendi, P. (2008). “Income, inequality, and electoral participation.” *Democracy, inequality, and representation: A comparative perspective.*
- Antrop, M. (2004). Landscape change and the urbanization process in Europe. *Landscape and Urban Planning*, 67(1–4), 9–26. [https://doi.org/10.1016/S0169-2046\(03\)00026-4](https://doi.org/10.1016/S0169-2046(03)00026-4)
- Art, D. (2022). The Myth of Global Populism. *Perspectives on Politics*, 20(3), 999–1011. <https://doi.org/10.1017/S1537592720003552>
- Arter, D. (2010). The Breakthrough of Another West European Populist Radical Right Party? The Case of the True Finns. *Government and Opposition*, 45(4), 484–504. <https://doi.org/10.1111/j.1477-7053.2010.01321.x>
- Arzheimer, K. (2009). Contextual Factors and the Extreme Right Vote in Western Europe, 1980-2002. *American Journal of Political Science*, 53(2), 259–275. <https://doi.org/10.1111/j.1540-5907.2009.00369.x>
- Babyak, M. A. (2004). What You See May Not Be What You Get: A Brief, Nontechnical Introduction to Overfitting in Regression-Type Models. *Psychosomatic Medicine*, 66(3), 411–421. <https://doi.org/10.1097/01.psy.0000127692.23278.a9>
- Bakker, B. N., Rooduijn, M., & Schumacher, G. (2016). The psychological roots of populist voting: Evidence from the United States, the Netherlands and Germany. *European Journal of Political Research*, 55(2), 302–320. <https://doi.org/10.1111/1475-6765.12121>
- Bartels, L. M., & Brady, H. E. (2003). Economic Behavior in Political Context. *American Economic Review*, 93(2), 156–161. <https://doi.org/10.1257/000282803321946976>
- Bell, A., & Jones, K. (2015). Explaining Fixed Effects: Random Effects Modeling of Time-Series Cross-Sectional and Panel Data. *Political Science Research and Methods*, 3(1), 133–153. <https://doi.org/10.1017/psrm.2014.7>
- Best, H., & Wolf, C. (2013). *The SAGE Handbook of Regression Analysis and Causal Inference* - Google Boeken. <https://books.google.nl/books?hl=nl&lr=&id=Q9rSAwAAQBAJ&oi=fnd&pg=PA327&dq=unit+heterogeneity+fixed+effects+model&ots=2f6oioaKdu&sig=eQkU-Q5eZuBcOZ4aYYKnsB2qXR4#v=onepage&q=unit%20heterogeneity%20fixed%20effects%20model&f=false>
- Betz. (1994). *Radical right-wing populism in Western Europe*. Springer.

- Betz, H.-G., & Immerfall, S. (1998). *The New Politics of the Right* (1st ed.). Palgrave Macmillan New York.
- Boer Burger Beweging. (2023). Standpunten | BBB. Retrieved at May 23, 2023, from <https://boerbürgerbeweging.nl/standpunten/>
- Borenstein, M., & Rothstein, H. (2010). A basic introduction to fixed and random effects models for meta-analysis. <https://doi.org/10.1002/jrsm.12>
- Breusch, T. S., & Mizon, G. E. (1984). Comment. *Econometric Reviews*, 3(2), 243–251. <https://doi.org/10.1080/07474938408800066>
- Brubaker, R. (2017). Why populism? *Theory and Society*, 46(5), 357–385. <https://doi.org/10.1007/s11186-017-9301-7>
- Brunner, B., & Kuhn, A. (2018). Immigration, Cultural Distance and Natives' Attitudes Towards Immigrants: Evidence from Swiss Voting Results. *Kyklos*, 71(1), 28–58. <https://doi.org/10.1111/kykl.12161>
- Caiani, M., & Graziano, P. (2019). Understanding varieties of populism in times of crises. *West European Politics*, 42(6), 1141–1158. <https://doi.org/10.1080/01402382.2019.1598062>
- Cantoni, E., & Pons, V. (2022). Does Context Outweigh Individual Characteristics in Driving Voting Behavior? Evidence from Relocations within the United States. *American Economic Review*, 112(4), 1226–1272. <https://doi.org/10.1257/aer.20201660>
- Carmignani, F. (2003). Political Instability, Uncertainty and Economics. *Journal of Economic Surveys*, 17(1), 1–54. <https://doi.org/10.1111/1467-6419.00187>
- Carter, E. L. (2011). *The extreme right in Western Europe : success or failure?* <https://manchesteruniversitypress.co.uk/9780719070495>
- CBS. (2023a). COROP-gebied. Retrieved at April 5, 2023, from <https://www.cbs.nl/nl-nl/onze-diensten/methoden/begrippen/corop-gebied>
- CBS. (2023b). Gemeentelijke indelingen per jaar. Retrieved at March 23, 2023, from <https://www.cbs.nl/nl-nl/onze-diensten/methoden/classificaties/overig/gemeentelijke-indelingen-per-jaar>
- CBS. (2023c). Organisatie. Retrieved at April 5, 2023, from <https://www.cbs.nl/nl-nl/over-ons/organisatie>
- Ceobanu, A. M., & Escandell, X. (2010). Comparative Analyses of Public Attitudes Toward Immigrants and Immigration Using Multinational Survey Data: A Review of Theories and Research. *Annual Review of Sociology*, 36(1), 309–328. <https://doi.org/10.1146/annurev.soc.012809.102651>
- Chiswick, B. R. (1999). Are Immigrants Favorably Self-Selected? *American Economic Review*, 89(2), 181–185. <https://doi.org/10.1257/aer.89.2.181>
- Chmelarova, V. (2007). *The Hausman test, and some alternatives, with heteroskedastic data*. LSU Doctoral Dissertations. https://doi.org/10.31390/gradschool_dissertations.936
- Clough-Gorr, K. M., Egger, M., & Spoerri, A. (2015). A Swiss paradox? Higher income inequality of municipalities is associated with lower mortality in Switzerland. *European Journal of Epidemiology*, 30(8), 627–636. <https://doi.org/10.1007/S10654-015-9987-7/TABLES/3>
- COA. (2023a). COA - Central Agency for the Reception of Asylum Seekers. Retrieved at April 6, 2023, from <https://www.coa.nl/en>
- COA. (2023b). COA - Het COA | www.coa.nl. Retrieved at April 6, 2023, from <https://www.coa.nl/nl/het-coa>
- Coffé, H., Heyndels, B., & Vermeir, J. (2007). Fertile grounds for extreme right-wing parties: Explaining the Vlaams Blok's electoral success. *Electoral Studies*, 26(1), 142–155. <https://doi.org/10.1016/J.ELECTSTUD.2006.01.005>
- Cools, S., Finseraas, H., & Rogeberg, O. (2021). Local Immigration and Support for Anti-Immigration Parties: A Meta-Analysis. *American Journal of Political Science*, 65(4), 988–1006. <https://doi.org/10.1111/ajps.12613>
- Cover, R. (2020). Vulnerability and the discourse of 'forgotten people': populism, population and cultural change. *Continuum*, 34(5), 749–762. <https://doi.org/10.1080/10304312.2020.1798875>

- Cox, M. (2017). The rise of populism and the crisis of globalisation: Brexit, Trump and beyond. *Irish Studies in International Affairs*, 28, 9–17. <https://doi.org/10.3318/ISIA.2017.28.12>
- Daams, M. N., Proietti, P., & Veneri, P. (2019). The effect of asylum seeker reception centers on nearby house prices: Evidence from The Netherlands. *Journal of Housing Economics*, 46, 101658. <https://doi.org/10.1016/j.jhe.2019.101658>
- Dahlberg, M., Edmark, K., & Lundqvist, H. (2012). Immigration, Ethnic Diversity and Political Outcomes: Evidence from Denmark. *Working Papers*, 120(1), 41–76. <https://doi.org/10.1086/665800>
- Davies, J. B., & Shorrocks, A. F. (2000). Chapter 11 The distribution of wealth (pp. 605–675). [https://doi.org/10.1016/S1574-0056\(00\)80014-7](https://doi.org/10.1016/S1574-0056(00)80014-7)
- De Borger, B., Kerstens, K., Moesen, W., & Vanneste, J. (1994). Explaining differences in productive efficiency: An application to Belgian municipalities. *Public Choice*, 80, 339–358.
- de Kiesraad. (2023). Over ons | Kiesraad.nl. Retrieved at March 30, 2023, from <https://www.kiesraad.nl/over-ons>
- de la Torre, C., & Mazzoleni, O. (2019). Do We Need a Minimum Definition of Populism? An Appraisal of Mudde’s Conceptualization. *Populism*, 2(1), 79–95. <https://doi.org/10.1163/25888072-02011021>
- de Lange, S. L. (2012). New Alliances: Why Mainstream Parties Govern with Radical Right-Wing Populist Parties. *Political Studies*, 60(4), 899–918. <https://doi.org/10.1111/j.1467-9248.2012.00947.x>
- De Maio, F. G. (2007). Income inequality measures. *Journal of Epidemiology & Community Health*, 61(10), 849–852. <https://doi.org/10.1136/jech.2006.052969>
- de Vreese, C. H., Esser, F., Aalberg, T., Reinemann, C., & Stanyer, J. (2018). Populism as an Expression of Political Communication Content and Style: A New Perspective. *The International Journal of Press/Politics*, 23(4), 423–438. <https://doi.org/10.1177/1940161218790035>
- Douglas, P., Cetron, M., & Spiegel, P. (2019). Definitions matter: migrants, immigrants, asylum seekers and refugees. *Journal of Travel Medicine*, 26(2). <https://doi.org/10.1093/jtm/taz005>
- Drukker, D. M. (2003). Testing for serial correlation in linear panel-data models. *The Stata Journal*, 3(2), 168–177. <http://www.stata-press.com/data/r8/nlswork.dta>
- Dustmann, C., Fasani, F., Frattini, T., Minale, L., & Schönberg, U. (2017). On the economics and politics of refugee migration. *Economic Policy*, 32(91), 497–550. <https://doi.org/10.1093/epolic/eix008>
- Econometrics with R. (2023). 10.3 Fixed Effects Regression | Introduction to Econometrics with R. Retrieved at April 13, 2023, from <https://www.econometrics-with-r.org/10-3-fixed-effects-regression.html>
- Entzinger, H. (2019). A Tale of Two Cities: Rotterdam, Amsterdam and Their Immigrants (pp. 173–189). https://doi.org/10.1007/978-3-319-96041-8_9
- Essletzbichler, J., Disslbacher, F., & Moser, M. (2018). The victims of neoliberal globalisation and the rise of the populist vote: a comparative analysis of three recent electoral decisions. *Cambridge Journal of Regions, Economy and Society*, 11(1), 73–94. <https://doi.org/10.1093/cjres/rsx025>
- Evans, J., & Ivaldi, G. (2021). Contextual Effects of Immigrant Presence on Populist Radical Right Support: Testing the “Halo Effect” on Front National Voting in France. *Comparative Political Studies*, 54(5), 823–854. <https://doi.org/10.1177/0010414020957677>
- Forum voor Democratie. (2023). Standpunten - Forum voor Democratie. Retrieved at May 23, 2023, from <https://fvd.nl/standpunten>
- Frankfurt, H. (1987). Equality as a Moral Ideal. *Ethics*, 98(1), 21–43. <https://doi.org/10.1086/292913>
- Galbraith, J. K., & Hale, J. T. (2008). State Income Inequality and Presidential Election Turnout and Outcomes *. *Social Science Quarterly*, 89(4), 887–901. <https://doi.org/10.1111/j.1540-6237.2008.00589.x>
- Gellner, E., & Ionescu, G. (1969). *Populism; its meaning and national characteristics* (1st ed., Vol. 1). Macmillan.

- Gerdes, C., & Wadensjö, E. (2008). The impact of immigration on election outcomes in Danish municipalities. <https://www.econstor.eu/handle/10419/34866>
- Gessler, T., Tóth, G., & Wachs, J. (2022). No Country for Asylum Seekers? How Short-Term Exposure to Refugees Influences Attitudes and Voting Behavior in Hungary. *Political Behavior*, 44(4), 1813–1841. <https://doi.org/10.1007/s11109-021-09682-1>
- Gibson, M. A. (1997). Complicating the Immigrant/Involuntary Minority Typology. *Anthropology & Education Quarterly*, 28(3), 431–454. <https://doi.org/10.1525/AEQ.1997.28.3.431>
- Gidron, N., & Bonikowski, B. (2013). Varieties of Populism: Literature Review and Research Agenda. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2459387>
- Gidron, N., & Hall, P. A. (2017). The politics of social status: economic and cultural roots of the populist right. *The British Journal of Sociology*, 68, S57–S84. <https://doi.org/10.1111/1468-4446.12319>
- Giesselmann, M., & Schmidt-Catran, A. W. (n.d.). Interactions in Fixed Effects Regression Models. <https://doi.org/10.1177/0049124120914934>
- Gozgor, G. (2022). The role of economic uncertainty in the rise of EU populism. *Public Choice*, 190(1–2), 229–246. <https://doi.org/10.1007/s11127-021-00933-7>
- Güvercin, D. (2022). Digitalization and populism: Cross-country evidence. *Technology in Society*, 68, 101802. <https://doi.org/10.1016/j.techsoc.2021.101802>
- Hahn, J., Ham, J. C., & Moon, H. R. (2011). The Hausman test and weak instruments. *Journal of Econometrics*, 160(2), 289–299. <https://doi.org/10.1016/j.jeconom.2010.09.009>
- Han, K. J. (2016). Income inequality and voting for radical right-wing parties. *Electoral Studies*, 42, 54–64. <https://doi.org/10.1016/j.electstud.2016.02.001>
- Harteveld, E., van der Brug, W., Dahlberg, S., & Kokkonen, A. (2015). The gender gap in populist radical-right voting: examining the demand side in Western and Eastern Europe. *Patterns of Prejudice*, 49(1–2), 103–134. <https://doi.org/10.1080/0031322X.2015.1024399>
- Healy, A. J. (2009). Individual Unemployment, Layoffs, and Voting in U.S. Presidential Elections.
- Hellwig, T., & Sinno, A. (2017). Different groups, different threats: public attitudes towards immigrants. *Journal of Ethnic and Migration Studies*, 43(3), 339–358. <https://doi.org/10.1080/1369183X.2016.1202749>
- Hill, T. D., Davis, A. P., Roos, J. M., & French, M. T. (2020). Limitations of Fixed-Effects Models for Panel Data. *Sociological Perspectives*, 63(3), 357–369. <https://doi.org/10.1177/0731121419863785>
- Historiek. (2020). Populisme - betekenis & kenmerken | Historiek. Retrieved at February 28, 2023, from <https://historiek.net/populisme-betekenis-kenmerken/100731/>
- History. (2018). Populism in the United States: Timeline - HISTORY. Retrieved at February 28, 2023, from <https://www.history.com/topics/us-government/populism-united-states-timeline>
- Houle, C., & Kenny, P. D. (2018). The Political and Economic Consequences of Populist Rule in Latin America. *Government and Opposition*, 53(2), 256–287. <https://doi.org/10.1017/GOV.2016.25>
- Hsiao, C. (2007). Panel data analysis—advantages and challenges. *TEST*, 16(1), 1–22. <https://doi.org/10.1007/s11749-007-0046-x>
- Hüther, M., & Diermeier, M. (2019). Perception and Reality—Economic Inequality as a Driver of Populism? *Analyse & Kritik*, 41(2), 337–358. <https://doi.org/10.1515/auk-2019-0021>
- Immerzeel, T., Coffé, H., & van der Lippe, T. (2015). Explaining the gender gap in radical right voting: A cross-national investigation in 12 Western European countries. *Comparative European Politics*, 13(2), 263–286. <https://doi.org/10.1057/cep.2013.20>
- Inglehart, R., & Norris, P. (2016). Trump, Brexit, and the Rise of Populism: Economic Have-Nots and Cultural Backlash. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2818659>
- JA21. (2023). JA21 - Standpunten. Retrieved at May 23, 2023, from <https://ja21.nl/standpunten>
- Jaeger, B. C., Edwards, L. J., Das, K., & Sen, P. K. (2017). An R2 statistic for fixed effects in the generalized linear mixed model. *Journal of Applied Statistics*, 44(6), 1086–1105. <https://doi.org/10.1080/02664763.2016.1193725>

- Johnson, D. (2001). Punitive Attitudes on Crime: Economic Insecurity, Racial Prejudice, or Both? *Sociological Focus*, 34(1), 33–54. <https://doi.org/10.1080/00380237.2001.10571182>
- Kaltwasser, C. R. (2018). How to define populism? : Reflections on a contested concept and its (mis)use in the social sciences. *Populism and the Crisis of Democracy*, 62–78. <https://doi.org/10.4324/9781315108070-5>
- Keefer, P., & Knack, S. (2008). Social Capital, Social Norms and the New Institutional Economics. *Handbook of New Institutional Economics*, 701–725. https://doi.org/10.1007/978-3-540-69305-5_28
- Kim, J. H. (2019). Multicollinearity and misleading statistical results. *Korean Journal of Anesthesiology*, 72(6), 558–569. <https://doi.org/10.4097/kja.19087>
- Klasen, S., Cornia, G. A., Grynspan, R., López-Calva, L. F., Lustig, N., Fosu, A., Motiram, S., Myamba, F., Peichl, A., Reddy, S., Shafir, E., Sojo, A., Woolard, I., Davidai, S., Förster, M., Lahoti, R., Sutz, J., & Thiele, R. (2018). Economic Inequality and Social Progress*. In *Rethinking Society for the 21st Century* (pp. 83–140). Cambridge University Press. <https://doi.org/10.1017/9781108399623.004>
- Koopmans, R., & Muis, J. (2009). The rise of right-wing populist Pim Fortuyn in the Netherlands: A discursive opportunity approach. *European Journal of Political Research*, 48(5), 642–664. <https://doi.org/10.1111/j.1475-6765.2009.00846.x>
- Krouwel, A. (2021). The next stage of Dutch populism? – Democracy | IPS Journal. <https://www.ips-journal.eu/topics/democracy/the-next-stage-of-dutch-populism-4963/>
- Lazar, M. (2021). European Populism, From Left to Right | Institut Montaigne. <https://www.institutmontaigne.org/en/analysis/european-populism-left-right>
- Lijphart, A. (1975). *The Politics of Accommodation: Pluralism and Democracy in the Netherlands* (Vol. 142). University of California Press.
- Linn, S., & Nagler, J. (2017). Economic Voting and Economic Inequality: U.S. Presidential Elections 1952–2012. *American Politics Research*, 45(4), 589–620. <https://doi.org/10.1177/1532673X16685313>
- Lovati, J. M. (1976). *The Unemployment Rate as an Economic Indicator*.
- LPF. (2002). General election manifesto Lijst Pim Fortuyn, 2002. In *Lijst Pim Fortuyn Zakelijk met een hart*.
- Lubbers, M. (2006). Objections to Asylum Seeker Centres: Individual and Contextual Determinants of Resistance to Small and Large Centres in the Netherlands. *European Sociological Review*, 22(3), 243–257. <https://doi.org/10.1093/esr/jci055>
- Lubbers, M., & Scheepers, P. (2000). Individual and contextual characteristics of the German extreme right-wing vote in the 1990s. A test of complementary theories. *European Journal of Political Research* 2000 38:1, 38(1), 63–94. <https://doi.org/10.1023/A:1007015715758>
- Lucardie, P. (2008). The Netherlands: Populism versus Pillarization. In *Twenty-First Century Populism* (pp. 151–165). Palgrave Macmillan UK. https://doi.org/10.1057/9780230592100_10
- Mair, P. (2008). Electoral Volatility and the Dutch Party System: A Comparative Perspective. *Acta Politica*, 43(2–3), 235–253. <https://doi.org/10.1057/ap.2008.1>
- Mansbridge, J., & Macedo, S. (2019). Populism and Democratic Theory. *Annual Review of Law and Social Science*, 15(1), 59–77. <https://doi.org/10.1146/annurev-lawsocsci-101518-042843>
- Mansfield, E. R., & Helms, B. P. (1982). Detecting Multicollinearity. *The American Statistician*, 36(3a), 158–160. <https://doi.org/10.1080/00031305.1982.10482818>
- Margalit, Y. (2019). Economic Insecurity and the Causes of Populism, Reconsidered. *Journal of Economic Perspectives*, 33(4), 152–170. <https://doi.org/10.1257/jep.33.4.152>
- Markus, G. B. (1992). The Impact of Personal and National Economic Conditions on Presidential Voting, 1956-1988. *American Journal of Political Science*, 36(3), 829. <https://doi.org/10.2307/2111594>
- Martinez, R., & Lee, M. T. (2000). On Immigration and Crime. 1, 486–524.
- Martinez-Vazquez, J. (1981). Selfishness versus public ‘regardingness’ in voting behavior. *Journal of Public Economics*, 15(3), 349–361. [https://doi.org/10.1016/0047-2727\(81\)90016-5](https://doi.org/10.1016/0047-2727(81)90016-5)

- Martins, M. R. (1995). Size of Municipalities, Efficiency, and Citizen Participation: A Cross-European Perspective. *Environment and Planning C: Government and Policy*, 13(4), 441–458. <https://doi.org/10.1068/c130441>
- Mazzoleni, G. (2008). Populism and the Media. In *Twenty-First Century Populism* (pp. 49–64). Palgrave Macmillan UK. https://doi.org/10.1057/9780230592100_4
- Moriconi, S., Peri, G., & Turati, R. (2019). Immigration and voting for redistribution: Evidence from European elections. *Labour Economics*, 61, 101765. <https://doi.org/10.1016/j.labeco.2019.101765>
- Morosini, P., Shane, S., & Singh, H. (1998). National Cultural Distance and Cross-Border Acquisition Performance. *Journal of International Business Studies*, 29(1), 137–158. <http://www.jstor.org/about/terms.html>
- Mudde, C. (2002). *The Ideology of the Extreme Right*. Manchester University Press. <https://doi.org/10.7228/manchester/9780719057939.001.0001>
- Mudde, C. (2004). The Populist Zeitgeist. *Government and Opposition*, 39(4), 541–563. <https://doi.org/10.1111/j.1477-7053.2004.00135.x>
- Mudde, C. (2007). *Populist Radical Right Parties in Europe*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511492037>
- Mudde, C. (2015). Populism in Europe: a primer | openDemocracy. <https://www.opendemocracy.net/en/can-europe-make-it/populism-in-europe-primer/>
- Mudde, C., & Kaltwasser, C. R. (2012). *Populism in Europe and the Americas: Threat or Corrective for Democracy?* Cambridge University Press.
- Mudde, C., & Rovira Kaltwasser, C. (2013). Exclusionary vs. Inclusionary Populism: Comparing Contemporary Europe and Latin America. *Government and Opposition*, 48(2), 147–174. <https://doi.org/10.1017/gov.2012.11>
- O'Connor, N. (2017). Three Connections between Rising Economic Inequality and the Rise of Populism. *Royal Irish Academy*, 28, 29–43.
- OECD. (2023). The integration of migrants in OECD regions : A first assessment | OECD Regional Development Working Papers | OECD iLibrary. <https://doi.org/https://doi.org/10.1787/20737009>
- Otjes, S., & Louwse, T. (2015). Populists in Parliament: Comparing Left-Wing and Right-Wing Populism in the Netherlands. *Political Studies*, 63(1), 60–79. <https://doi.org/10.1111/1467-9248.12089>
- Otto, A. H., & Steinhardt, M. F. (2014). Immigration and election outcomes — Evidence from city districts in Hamburg. *Regional Science and Urban Economics*, 45(1), 67–79. <https://doi.org/10.1016/J.REGSCIURBECO.2014.01.004>
- Pankowski, R. (2010). *The Populist Radical Right in Poland*. Routledge. <https://doi.org/10.4324/9780203856567>
- Parlement. (2023a). Links-populistische partijvorming - Parlement.com. Retrieved at February 28, 2023, from https://www.parlement.com/id/vl0wf3150lu4/links_populistische_partijvorming
- Parlement. (2023b). Rechts-populistische partijvorming - Parlement.com. Retrieved at February 28, 2023, from https://www.parlement.com/id/vjkbvzmnlnjc/rechts_populistische_partijvorming
- Partij voor de Vrijheid. (2023). PVV Visie. Retrieved at May 23, 2023, from <https://www.pvv-europa.nl/standpunten>
- Passari, E. (2020). The Great Recession and the Rise of Populism. *Intereconomics*, 55(1), 17–21. <https://doi.org/10.1007/S10272-020-0863-7/METRICS>
- Pástor, L., & Veronesi, P. (2021a). Inequality Aversion, Populism, and the Backlash against Globalization. *The Journal of Finance*, 76(6), 2857–2906. <https://doi.org/10.1111/jofi.13081>
- Pástor, L., & Veronesi, P. (2021b). Inequality Aversion, Populism, and the Backlash against Globalization. *The Journal of Finance*, 76(6), 2857–2906. <https://doi.org/10.1111/jofi.13081>
- Pattie, C., & Johnston, R. (1998). The Role of Regional Context in Voting: Evidence from the 1992 British General Election. *Regional Studies*, 32(3), 249–263. <https://doi.org/10.1080/00343409850119742>

- Pauwels, T. (2014). *Populism in Western Europe: Comparing Belgium, Germany and The Netherlands* - Teun Pauwels - Google Boeken. Routledge.
<https://books.google.nl/books?hl=nl&lr=&id=dmUtBAAQBAJ&oi=fnd&pg=PP1&dq=factors+of+populism+in+the+netherlands&ots=ddVFrSfEV6y&sig=L1u3ySyFxnghVmDDd5V4uiF74Yo#v=onepage&q=factors%20of%20populism%20in%20the%20netherlands&f=false>
- Pennings, P., & Keman, H. (2003). The Dutch Parliamentary Elections in 2002 and 2003: The Rise and Decline of the Fortuyn Movement. *Acta Politica*, 38(1), 51–68.
<https://doi.org/10.1057/palgrave.ap.5500001>
- Piketty, T. (2013). *Le capital au XXI^e siècle*.
https://books.google.com/books/about/Le_Capital_au_XXIe_si%C3%A8cle.html?hl=nl&id=pQieAAAAQBAJ
- Plumper, T., & Troeger, V. E. (2019). Not so harmless after all: The fixed-effects model. *Political Analysis*, 27(1), 21–45. <https://doi.org/10.1017/PAN.2018.17>
- Podobnik, B., Jusup, M., Kovac, D., & Stanley, H. E. (2017). Predicting the Rise of EU Right-Wing Populism in Response to Unbalanced Immigration. *Complexity*, 2017, 1–12.
<https://doi.org/10.1155/2017/1580526>
- Portes, A., Fernández-Kelly, P., & Haller, W. (2009). The Adaptation of the Immigrant Second Generation in America: A Theoretical Overview and Recent Evidence. *Journal of Ethnic and Migration Studies*, 35(7), 1077–1104. <https://doi.org/10.1080/13691830903006127>
- Programme, M. W., & Guia, A. (2016). The concept of nativism and anti-immigrant sentiments in Europe. <https://cadmus.eui.eu/handle/1814/43429>
- Rabinovich, S. (2006). *Measurement Errors and Uncertainties*. Springer Science & Business Media.
- Ramiro, L., & Gomez, R. (2017). Radical-Left Populism during the Great Recession: Podemos and Its Competition with the Established Radical Left. *Political Studies*, 65(1S), 108–126.
<https://doi.org/10.1177/0032321716647400>
- Reed, W. R. (2015). On the Practice of Lagging Variables to Avoid Simultaneity. *Oxford Bulletin of Economics and Statistics*, 77(6), 897–905. <https://doi.org/10.1111/obes.12088>
- Reeson, A., Csiro, S. D., & Dunstall, S. (2009). *Behavioural Economics and Complex Decision-Making Implications for the Australian Tax and Transfer System Confidential Report prepared for Treasury*.
- Regio atlas. (2023). *Gemeente inwoneraantal*. Retrieved at April 20, 2023, from www.regioatlas.nl/gemeenten
- Rey, S. J., & Smith, R. J. (2013). A spatial decomposition of the Gini coefficient. *Letters in Spatial and Resource Sciences*, 6(2), 55–70. <https://doi.org/10.1007/s12076-012-0086-z>
- Rickardsson, J. (2021). The urban–rural divide in radical right populist support: the role of resident’s characteristics, urbanization trends and public service supply. *The Annals of Regional Science*, 67(1), 211–242. <https://doi.org/10.1007/s00168-021-01046-1>
- Rijksoverheid. (2023). *Gemeenten en provincies krijgen wettelijke taak tot opvang asielzoekers | Nieuwsbericht | Rijksoverheid.nl*. Retrieved at April 18, 2023, from <https://www.rijksoverheid.nl/actueel/nieuws/2022/05/25/gemeenten-en-provincies-krijgen-wettelijke-taak-tot-opvang-asielzoekers>
- Rijkswaterstaat. (2023). *Opvangcentrum voor asielzoekers - Kenniscentrum InfoMil*. Retrieved at April 18, 2023, from <https://www.infomil.nl/onderwerpen/geluid/functies/asielzoekerscentra/>
- Rodrik, D. (2018). Populism and the economics of globalization. *Journal of International Business Policy*, 1(1–2), 12–33. <https://doi.org/10.1057/S42214-018-0001-4/TABLES/3>
- Rooduijn, M. (2018). What unites the voter bases of populist parties? Comparing the electorates of 15 populist parties. *European Political Science Review*, 10(3), 351–368.
<https://doi.org/10.1017/S1755773917000145>
- Rothbart, M., & John, O. P. (1993). Intergroup relations and stereotype change: A social-cognitive analysis and some longitudinal findings. *Prejudice, politics, and the American dilemma*.
- Sampson, E. E. (1975). On Justice as Equality. *Journal of Social Issues*, 31(3), 45–64.
<https://doi.org/10.1111/j.1540-4560.1975.tb00996.x>

- Sawer, M., & Laycock, D. (2009). Down with Elites and Up with Inequality: Market Populism in Australia and Canada. *Commonwealth & Comparative Politics*, 47(2), 133–150. <https://doi.org/10.1080/14662040902842836>
- Scheve, K., & Slaughter, M. J. (2004). Economic Insecurity and the Globalization of Production. *American Journal of Political Science*, 48(4), 662–674. <https://doi.org/10.1111/j.0092-5853.2004.00094.x>
- Schreiber, S. (2008). The Hausman test statistic can be negative even asymptotically. *Jahrbucher Fur Nationalokonomie Und Statistik*, 228(4), 394–405. <https://doi.org/10.1515/JBNST-2008-0407/MACHINEREADABLECITATION/RIS>
- Shayo, M. (2009). A Model of Social Identity with an Application to Political Economy: Nation, Class, and Redistribution. *American Political Science Review*, 103(2), 147–174. <https://doi.org/10.1017/S0003055409090194>
- Shehaj, A., Shin, A. J., & Inglehart, R. (2019). Immigration and right-wing populism: An origin story. <https://doi.org/10.1177/1354068819849888>
- Sherif, M., & Sherif, C. W. (1953). Groups in harmony and tension; an integration of studies of intergroup relations.
- Shvets, Y. (2004). IMMIGRATION POLITICS IN FRANCE: THE EFFECT OF FOREIGNERS ON ELECTORAL RESULTS.
- Socialistische Partij. (2023). Standpunten - SP. Retrieved at May 23, 2023, from <https://www.sp.nl/standpunten>
- Sola, A. (2018). The 2015 Refugee Crisis in Germany: Concerns About Immigration and Populism. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3169243>
- Spierings, N., & Zaslove, A. (2015). Gendering the vote for populist radical-right parties. *Patterns of Prejudice*, 49(1–2), 135–162. <https://doi.org/10.1080/0031322X.2015.1024404>
- Spierings, N., & Zaslove, A. (2017). Gender, populist attitudes, and voting: explaining the gender gap in voting for populist radical right and populist radical left parties. *West European Politics*, 40(4), 821–847. <https://doi.org/10.1080/01402382.2017.1287448>
- Spruyt, B., Keppens, G., & Van Droogenbroeck, F. (2016). Who Supports Populism and What Attracts People to It? *Political Research Quarterly*, 69(2), 335–346. <https://doi.org/10.1177/1065912916639138>
- Stewart, C. D. (1950). The Definition of Unemployment. *The Review of Economics and Statistics*, 32(1), 55. <https://doi.org/10.2307/1928276>
- Stoetzer, L. F., Giesecke, J., & Klüver, H. (2023). How does income inequality affect the support for populist parties? *Journal of European Public Policy*, 30(1), 1–20. <https://doi.org/10.1080/13501763.2021.1981981>
- Turkoglu, O., Canavan, M., & Icduygu, A. (2022). The economic limits of empathy? Analysing variation in the attitudes of oppressed minority groups towards refugees. *Journal of Ethnic and Migration Studies*, 1–20. <https://doi.org/10.1080/1369183X.2022.2085081>
- Uddin, I., & Rahman, K. U. (2022). Impact of corruption, unemployment and inflation on economic growth evidence from developing countries. *Quality & Quantity*. <https://doi.org/10.1007/s11135-022-01481-y>
- United States Census Bureau. (2023). Income Inequality Metrics.
- Uslaner, E. M., & Brown, M. (2005). INEQUALITY, TRUST, AND CIVIC ENGAGEMENT. <https://doi.org/10.1177/1532673X04271903>
- van der Steen, P. (1995). De doorbraak van de 'gewone mensen'-partij: de SP en de Tweede Kamerverkiezingen van 1994. In *Jaarboek 1994 DNPP*.
- van Hoisteyn, J. J. M., & Andeweg, R. B. (2006). NIEMAND IS GROTER DAN DE PARTIJ Over de personalisering van de Nederlandse electorale politiek.
- van Holsteyn, J. J. M., & Irwin, G. A. (2003). Never a dull moment: Pim Fortuyn and the Dutch parliamentary election of 2002. *West European Politics*, 26(2), 41–66. <https://doi.org/10.1080/01402380512331341101>

- van Kessel, S. (2011). Explaining the Electoral Performance of Populist Parties: The Netherlands as a Case Study. *Perspectives on European Politics and Society*, 12(1), 68–88. <https://doi.org/10.1080/15705854.2011.546148>
- van Kessel, S. (2013). A Matter of Supply and Demand: The Electoral Performance of Populist Parties in Three European Countries. *Government and Opposition*, 48(2), 175–199. <https://doi.org/10.1017/gov.2012.14>
- Verba, S., Burns, N., & Schlozman, K. L. (1997). Knowing and Caring about Politics: Gender and Political Engagement. *The Journal of Politics*, 59(4), 1051–1072. <https://doi.org/10.2307/2998592>
- Visser, M., Lubbers, M., Kraaykamp, G., & Jaspers, E. (2014). Support for radical left ideologies in Europe. *European Journal of Political Research*, 53(3), 541–558. <https://doi.org/10.1111/1475-6765.12048>
- Vossen, K. (2010). Populism in the Netherlands after Fortuyn: Rita Verdonk and Geert Wilders Compared. *Perspectives on European Politics and Society*, 11(1), 22–38. <https://doi.org/10.1080/15705850903553521>
- Weng, L.-C. D. (2015). Contextual Effects on Individual Voting Behavior: The Case of Taiwan. *Asian Journal of Political Science*, 23(3), 321–345. <https://doi.org/10.1080/02185377.2015.1073602>
- Weyland, K. (2001). Clarifying a Contested Concept: Populism in the Study of Latin American Politics. *Comparative Politics*, 34(1), 1. <https://doi.org/10.2307/422412>
- Weyland, K., & Madrid, R. L. (2019). Donald Trump's Populism. In *When Democracy Trumps Populism* (pp. 1–34). Cambridge University Press. <https://doi.org/10.1017/9781108692793.002>
- Wilders, G. (2005). Onafhankelijkheidsverklaring. In *Groep Wilders*.
- Wooldridge, J. M. (1995). Selection corrections for panel data models under conditional mean independence assumptions. *Journal of Econometrics*, 68(1), 115–132. [https://doi.org/10.1016/0304-4076\(94\)01645-G](https://doi.org/10.1016/0304-4076(94)01645-G)
- Yilmaz, I., & Morieson, N. (2022). Civilizational Populism: Definition, Literature, Theory, and Practice. *Religions*, 13(11), 1026. <https://doi.org/10.3390/rel13111026>
- Zimmermann, S., & Stutzer, A. (2022). The consequences of hosting asylum seekers for citizens' policy preferences. *European Journal of Political Economy*, 73, 102130. <https://doi.org/10.1016/j.ejpoleco.2021.102130>
- Zorlu, A. (2017). Attitudes toward Asylum Seekers in Small Local Communities. *International Migration*, 55(6), 14–36. <https://doi.org/10.1111/imig.12296>
- Zorlu, A., & Mulder, C. H. (2008). Initial and Subsequent Location Choices of Immigrants to the Netherlands. *Regional Studies*, 42(2), 245–264. <https://doi.org/10.1080/00343400601145210>

Appendix

Appendix A – estimation without voter turnout as control variable

Table 6: regression results from the fixed Effects model with the populist voting share as dependent variable and the estimations of the independent variables for the selected years, excluding the control variable for voter turnout.

Dependent variable = populist voting share	(2)	(4)	(6)	(8)
	Time and COROP fixed effects	Time and COROP fixed effects	Time and COROP fixed effects	Time and COROP fixed effects
Independent variable				
Income inequality	-.002*** (.000)			
Immigration		.012 (.083)	.010 (.087)	
AZC			-.005 (.006)	
Immigration * AZC			.020 (.080)	
Unemployment				1.668 (.173)
Control variables				
Population	-.000*** (.000)	-.000** (.000)	-.000** (.000)	-.000*** (.000)
Share women	-.415* (.234)	-.527** (.245)	-.501** (.240)	-.794*** (.236)
Crime rate	.000* (.000)	.000** (.000)	.000** (.000)	.000 (.000)
Elderly people	.075 (.071)	.092 (.078)	.091** (.076)	.077 (.073)
Young people	-.103 (.077)	-.044 (.097)	-.043 (.095)	-.088 (.089)
High educated	.007 (.025)	.000 (.027)	.000 (.027)	-.003 (.028)
Low educated	.016 (.045)	.030 (.046)	.029 (.046)	.040 (.044)
Mobility	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Income	-.004*** (.001)	-.005*** (.001)	-.005*** (.001)	-.004*** (.001)
Constant	.572 (.113)	.610 (.119)	.598 (.117)	.675 (.113)
Observations	2,463	2,463	2,463	2,463
Overall R-Squared	.528	.529	.530	.550
Between R-Squared	.253	.274	.285	.274
Within R-Squared	.618	.611	.611	.631

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Appendix B – Explanation of variables

Table 7: explanation of the variables used in the empirical model.

Variable	Abbreviation	Measurement	Source
Dependent variable			
Populistic voting percentage	Popvot	Percentage of total votes that went to a populist party in the Netherlands during the parliamentary elections per municipality. Populistic parties are considered PVV, LPF, FVD, BBB, JA21 and SP.	De Kiesraad 2002 - 2021
Independent variables			
Income inequality	Incomeinequality	Percentage of the national income earned in the highest earning 9 th or 10 th percentile of households in the municipality. Measured on the first of January per year.	CBS
Immigration	Immigration	Share of western and non-western first-generation immigrants as a percentage of the total population of the municipality. Measured on the first of January per year.	CBS
AZC	AZC	Dummy that indicates 1 if there is an asylum center in the municipality. Dummy indicates 0 if there is no asylum center in the municipality.	COA
Unemployment	Unemployment	Percentage of people from the working population that does not have a job, but is actively looking for one. Measured on the first of January per year.	CBS
Control variables			
Population	Population	Total population of the municipality, measured on the first of January on the year of the election.	CBS
Share women	Share_wom	Percentage of women of the total population in the municipality in the year of the election	CBS
Crime rate	Crime_rate	Total number of crimes per 1000 inhabitants in the municipality the of the election	CBS
Elderly people	Elderly_p	Percentage of people of the total population in the municipality with an age of 60 or higher. Measured on the 1 st of January in the year of the election.	CBS
Young people	Young_p	Percentage of people of the total population in the municipality with an age between 18 and 35. Measured on the 1 st of January in the year of the election.	CBS
High educated	High_edu	Percentage of the population in the municipality that participates in education on HBO or WO level. Measured on the 1 st of January in the year of the election.	CBS
Low educated	Low_edu	Percentage of the population in the municipality that participates in education on MBO-1 or VMBO, HAVO 1-3 or VWO 1-3 level. Measured on the 1 st of January in the year of the election.	CBS
Mobility	Mobiity	Total road length of the municipality in kilometers. Measured on the 1 st of January in the year of the election.	CBS
Turnout	Turnout	The percentage of the population that is eligible to vote that actually voted during the election.	De Kiesraad 2002 - 2021

Income

Income

Average disposable income of private households, excluding students. In thousands of Euros. Measured on the 1st of January in the year of the election.

CBS

Appendix C – List of municipalities included

's-Gravenhage
's-Hertogenbosch
Aa en Hunze
Aalsmeer
Aalten
Achtkarpselen
Alblasserdam
Albrandswaard
Alkmaar
Almelo
Almere
Alphen aan den Rijn
Alphen-Chaam
Altena
Ameland
Amersfoort
Amstelveen
Amsterdam
Apeldoorn
Arnhem
Assen
Asten
Baarle-Nassau
Baarn
Barendrecht
Barneveld
Beek
Beekdaelen
Beemster
Beesel
Berg en Dal
Bergeijk
Bergen (L)
Bergen (NH)
Bergen op Zoom
Berkelland
Bernheze
Best
Beuningen
Beverwijk
Bladel
Blaricum
Bloemendaal
Bodegraven-Reeuwijk
Boekel
Borger-Odoorn
Borne
Borsele
Boxmeer

Boxtel
Breda
Brielle
Bronckhorst
Brummen
Brunssum
Bunnik
Bunschoten
Buren
Capelle aan den IJssel
Castricum
Coevorden
Cranendonck
Cuijk
Culemborg
Dalfsen
Dantumadiel
De Bilt
De Fryske Marren
De Ronde Venen
De Wolden
Delft
Den Helder
Deurne
Deventer
Diemen
Dinkelland
Doesburg
Doetinchem
Dongen
Dordrecht
Drechterland
Drimmelen
Dronten
Druten
Duiven
Echt-Susteren
Edam-Volendam
Ede
Eemnes
Eemsdelta
Eersel
Eijsden-Margraten
Eindhoven
Elburg
Emmen
Enkhuizen
Enschede
Epe
Ermelo
Etten-Leur
Geertruidenberg

Geldrop-Mierlo
Gemert-Bakel
Gennep
Gilze en Rijen
Goeree-Overflakkee
Goes
Goirle
Gooise Meren
Gorinchem
Gouda
Grave
Groningen
Gulpen-Wittem
Haaksbergen
Haarlem
Haarlemmermeer
Halderberge
Hardenberg
Harderwijk
Hardinxveld-Giessendam
Harlingen
Hattem
Heemskerk
Heemstede
Heerde
Heerenveen
Heerhugowaard
Heerlen
Heeze-Leende
Heiloo
Hellendoorn
Hellevoetsluis
Helmond
Hendrik-Ido-Ambacht
Hengelo
Het Hogeland
Heumen
Heusden
Hillegom
Hilvarenbeek
Hilversum
Hoeksche Waard
Hof van Twente
Hollands Kroon
Hoogeveen
Hoorn
Horst aan de Maas
Houten
Huizen
Hulst
IJsselstein
Kaag en Braassem

Kampen
Kapelle
Katwijk
Kerkrade
Koggenland
Krimpenerwaard
Laarbeek
Landerd
Landgraaf
Landsmeer
Langedijk
Lansingerland
Laren
Leeuwarden
Leiden
Leiderdorp
Leidschendam-Voorburg
Lelystad
Leudal
Leusden
Lingewaard
Lisse
Lochem
Loon op Zand
Lopik
Losser
Maasdriel
Maasgouw
Maassluis
Maastricht
Medemblik
Meerssen
Meerijstad
Meppel
Middelburg
Midden-Delfland
Midden-Drenthe
Midden-Groningen
Mill en Sint Hubert
Moerdijk
Molenlanden
Montferland
Montfoort
Mook en Middelaar
Neder-Betuwe
Nederweert
Nieuwegein
Nieuwkoop
Nijkerk
Nijmegen
Nissewaard
Noardeast-Fryslân

Noord-Beveland
Noordenveld
Noordoostpolder
Noordwijk
Nuenen, Gerwen en Nederwetten
Nunspeet
Oegstgeest
Oirschot
Oisterwijk
Oldambt
Oldebroek
Oldenzaal
Olst-Wijhe
Ommen
Oost Gelre
Oosterhout
Ooststellingwerf
Oostzaan
Opmeer
Opsterland
Oss
Oude IJsselstreek
Ouder-Amstel
Oudewater
Overbetuwe
Papendrecht
Peel en Maas
Pekela
Pijnacker-Nootdorp
Purmerend
Putten
Raalte
Reimerswaal
Renkum
Renswoude
Reusel-De Mierden
Rheden
Rhenen
Ridderkerk
Rijssen-Holten
Rijswijk
Roerdalen
Roermond
Roosendaal
Rotterdam
Rozendaal
Rucphen
Schagen
Scherpenzeel
Schiedam
Schiermonnikoog
Schouwen-Duiveland

Simpelveld
Sint Anthonis
Sint-Michielsgestel
Sittard-Geleen
Sliedrecht
Sluis
Smallerland
Soest
Someren
Son en Breugel
Stadskanaal
Staphorst
Stede Broec
Steenbergen
Steenwijkerland
Stein
Stichtse Vecht
Súdwest-Fryslân
Terneuzen
Terschelling
Texel
Teylingen
Tholen
Tiel
Tilburg
Tubbergen
Twenterand
Tynaarlo
Tytsjerksteradiel
Uden
Uitgeest
Uithoorn
Urk
Utrecht
Utrechtse Heuvelrug
Vaals
Valkenburg aan de Geul
Valkenswaard
Veendam
Veenendaal
Veere
Veldhoven
Velsen
Venlo
Venray
Vijfheerenlanden
Vlaardingen
Vlieland
Vlissingen
Voerendaal
Voorschoten
Voorst

Vught
Waadhoeke
Waalre
Waalwijk
Waddinxveen
Wageningen
Wassenaar
Waterland
Weert
Weesp
West Betuwe
West Maas en Waal
Westerkwartier
Westerveld
Westervoort
Westerwolde
Westland
Weststellingwerf
Westvoorne
Wierden
Wijchen
Wijdmeren
Wijk bij Duurstede
Winterswijk
Woensdrecht
Woerden
Wormerland
Woudenberg
Zaanstad
Zaltbommel
Zandvoort
Zeewolde
Zeist
Zevenaar
Zoetermeer
Zoeterwoude
Zuidplas
Zundert
Zutphen
Zwartewaterland
Zwijndrecht
Zwolle

Appendix D – pairwise correlation

Table 8: pairwise correlation of all variables.

Variable	1	2	3	4	5	6	7	8	9	10
1. Populistic voting percentage	1.000									
2. Left wing populist voting percentage	.515***	1.000								
3. Right wing populist voting percentage	.786***	-.0126***	1.000							
4. Income inequality	-.267***	-.277***	-.109***	1.000						
5. Immigration	.159***	.036*	.158***	-.035*	1.000					
6. Western immigration	.186***	.049**	.183***	.012	.799***	1.000				
7. Non-western immigration	.088***	.019	.088***	-.063***	.866***	.393***	1.000			
8. AZC	.000	.056***	-.040***	-.130***	.233***	.075***	.294***	1.000		
9. Unemployment	.0130***	.377***	-.121***	-.370***	.421***	.244***	.445***	.265***	1.000	
10. Population	.020***	.039*	.005	-.104***	.601***	.235***	.723***	.335***	.406***	1.000
11. Share women	-.118***	-.080***	-.078***	.270***	.355***	.240***	.344***	.137***	.178***	.151***
12. Crime rate	-.137***	.101***	-.231***	-.051**	.360***	.192***	.391***	.235***	.409***	.386***
13. Elderly people	.377***	.050**	.401***	.047***	.019	.200***	-.138***	-.039*	-.160***	-.192***
14. Young people	-.128***	-.110***	-.069***	-.268***	.386***	.086***	.520***	.213***	.257***	.500***
15. High educated	-.023	-.274***	.171***	.016	.142***	.050***	.143***	.066***	.037**	.160***
16. Low educated	.396***	.450***	.133***	-.039**	-.040***	-.015***	-.048***	-.042***	.028	-.068***
17. Mobility	.051**	.082***	-.000	-.236***	.206***	.025***	.294***	.360***	.283***	.660***
18. Turnout	-.491***	-.318***	.339***	.350***	-.342***	-.243***	-.322***	-.148***	-.571***	-.266***
19. Income	.163***	-.200***	.333***	.398***	-.003	.036*	-.033*	-.123***	-.434***	-.128***

Notes: ***p<0.01, **p<0.05 and *p<0.10. Number of individual observations: 2,463

Table 8: continued.

Variable	11	12	13	14	15	16	17	18	19
1. Populistic voting percentage									
2. Left wing populist voting percentage									
3. Right wing populist voting percentage									
4. Income inequality									
5. Immigration									
6. Western immigration									
7. Non-western immigration									
8. AZC									
9. Unemployment									
10. Population									
11. Share women	1.000								
12. Crime rate	.268***	1.000							
13. Elderly people	.158***	-.442***	1.000						
14. Young people	-.060***	.441***	-.621***	1.000					
15. High educated	.050***	.316***	-.309***	.362***	1.000				
16. Low educated	-.038*	-.419***	.309***	-.424***	-.594***	1.000			
17. Mobility	-.113***	.166***	-.052***	.262***	.034*	-.012	1.000		
18. Turnout	-.018	-.213***	-.029***	-.113	-.016	-.134***	-.218***	1.000	
19. Income	.068***	-.555***	.607***	-.406***	-.356***	.480***	-.157***	.189***	1.000

Notes: ***p<0.01, **p<0.05 and *p<0.10. Number of observations: 2,463

Appendix E – VIF score

Table 9: VIF score for estimated model

Variable	1 VIF	2 VIF
Left wing populist voting percentage	1.95	-
Right wing populist voting percentage	2.53	-
Income inequality	2.31	2.25
Immigration	2.53	2.49
AZC	1.25	1.25
Unemployment	2.71	2.44
Population	3.66	3.66
Share women	1.64	1.58
Crime rate	2.28	2.21
Elderly people	2.54	3.27
Young people	3.33	3.32
High educated	2.85	2.10
Low educated	3.58	2.67
Mobility	2.42	2.41
Turnout	2.29	1.69
Income	3.78	3.37
Mean VIF	2.67	2.48

Appendix F – Hausman test

Table 10: Hausman test scores for all estimated model

Model	P-value	Preferred model
Income inequality	0.000	Fixed effects
immigration	0.000	Fixed effects
Unemployment	0.000	Fixed effects

Appendix G – Regression results for western and non-western immigration as independent variable.

Table 11: regression results from the fixed Effects model with the populist voting share as dependent variable and immigration as the independent variable.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pooled OLS	Pooled OLS	Time fixed effects	Time fixed effects	Time and municipality fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and COROP fixed effects
Independent variable								
Non-western immigrants	.183*** (.067)		-.162 (.151)		-.391** (.163)		-.168 (.129)	
Western immigrants		.124* (.062)		.035 (.084)		-.324 (.241)		-.149** (.063)
Control variables								
Population	-.000 (.000)	-.000 (.000)	.000 (.000)	-.000 (.000)	-.000*** (.000)	-.000** (.000)	-.000** (.000)	- .000*** (.000)
Share women	- 1.942*** (.179)	- 1.826*** (.163)	- 1.289*** (.235)	- 1.438*** (.336)	-.141 (.474)	-.169** (.470)	-.558*** (.179)	- .635*** (.166)
Crime rate	.000 (.000)	.000 (.000)	.000** (.000)	.000** (.000)	.000** (.000)	.000* (.000)	.000* (.000)	.000 (.000)
Elderly people	.587*** (.037)	.567*** (.038)	.111** (.082)	.118** (.086)	.306*** (.083)	.318*** (.084)	.110** (.052)	.133** (.059)
Young people	.151*** (.048)	.192*** (.046)	-.352* (.161)	-.377* (.167)	-.092 (.132)	-.062 (.150)	-.058 (.079)	-.059 (.073)
High educated	.125*** (.005)	.124*** (.005)	.029 (.018)	.027 (.018)	.028** (.013)	.029** (.031)	.008 (.024)	.008 (.024)
Low educated	.256*** (.009)	.259*** (.009)	-.016 (.050)	-.016 (.049)	-.024 (.031)	-.020 (.031)	.034 (.039)	.034** (.040)
Mobility	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000** (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	-.000 (.000)
Turnout	-.621*** (.029)	-.628*** (.029)	-.731*** (.123)	-.712*** (.107)	-.506*** (.050)	-.502*** (.049)	-.562*** (.070)	- .556*** (.068)
Income	-.000 (.000)	-.000 (.000)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003 (.001)	-.003*** (.001)	- .003*** (.001)
Constant	1.439 (.084)	1.380 (.080)	1.604 (.247)	1.662 (.282)	.777 (.248)	.778 (.244)	1.025 (.091)	1.053 (.094)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.547	.547	.096	.110	.222	.271	.678	.671
Between R-Squared	-	-	.141	.128	.057	.072	.661	.643
Within R-Squared	-	-	.501	.499	.734	.733	.691	.692

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Appendix H – Regression results with AZC as independent variable

Table 12: regression results from the fixed Effects model with the populist voting share as dependent variable and presence of an AZC as the independent variable.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)
	Pooled OLS	Time fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable				
AZC	-.005* (.003)	-.009*** (.002)	.005 (.006)	-.005* (.003)
Control variables				
Population	-.000 (.000)	-.000 (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-1.764*** (.162)	-1.358*** (.315)	-.134 (.477)	-.627*** (.176)
Crime rate	.000 (.000)	.000** (.000)	.000** (.000)	.000 (.000)
Elderly people	.599*** (.036)	.122 (.082)	.323*** (.086)	.108** (.051)
Young people	.215 (.045)	-.373* (.167)	-.139 (.134)	-.074 (.071)
High educated	.124*** (.005)	.028 (.018)	.029** (.013)	.007 (.024)
Low educated	.258*** (.009)	-.020 (.052)	-.024 (.031)	.036 (.039)
Mobility	-.000*** (.000)	-.000** (.000)	.000 (.000)	.000 (.000)
Turnout	-.629*** (.028)	-.715*** (.107)	-.502*** (.049)	-.550*** (.065)
Income	-.000* (.000)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)
Constant	1.349 (.081)	1.627 (.276)	.763 (.247)	1.048 (.091)
Observations	2,463	2,463	2,463	2,463
Overall R-Squared	.546	.100	.257	.678
Between R-Squared	-	.145	.073	.695
Within R-Squared	-	.502	.733	.691

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Appendix I – Robustness, lag variables

Table 13: regression results from the fixed Effects model with the populist voting share as dependent variable and the lag of the independent variables for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable								
Income inequality lag	-.001*** (.000)	-.000 (.000)						
Immigration lag			-.102 (.100)	-.110* (.059)	-.217* (.126)	-.118* (.066)		
AZC lag					-.007 (.010)	-.007 (.005)		
Immigration * AZC lag					.210 (.137)	.037 (.064)		
Unemployment lag							.506** (.211)	.239 (.173)
Control variables								
Population	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-.087 (.482)	-.643*** (.178)	-.151 (.475)	-.562*** (.168)	-.138 (.479)	-.523*** (.165)	-.106 (.482)	-.695*** (.180)
Crime rate	.000** (.000)	.000 (.000)	.000** (.000)	.000* (.000)	.000** (.000)	.000** (.000)	.000** (.000)	.000 (.000)
Elderly people	.323*** (.087)	.104* (.054)	.313*** (.083)	.123** (.057)	.317*** (.084)	.123** (.055)	.332*** (.087)	.105* (.054)
Young people	-.169 (.133)	-.087 (.072)	-.107 (.139)	-.054 (.076)	-.086 (.140)	-.051 (.074)	-.140 (.137)	-.086 (.074)
High educated	.029** (.013)	.008 (.024)	.029** (.013)	.009 (.024)	.028** (.014)	.009 (.024)	.028** (.014)	.006 (.025)
Low educated	-.029 (.031)	.035 (.041)	-.023 (.031)	.031 (.040)	-.020 (.031)	.031 (.040)	-.020 (.031)	.039 (.039)
Mobility	.000 (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Turnout	-.484*** (.049)	-.541*** (.067)	-.502*** (.049)	-.562*** (.070)	-.503*** (.049)	-.564*** (.070)	-.461*** (.000)	-.528*** (.068)
Income	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)
Constant	.753*** (.250)	1.055 (.096)	.774 (.247)	1.024 (.091)	.768 (.248)	1.007 (.089)	.698 (.250)	1.058 (.094)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.254	.675	.263	.673	.244	.676	.261	.675
Between R-Squared	.074	.667	.073	.645	.062	.666	.077	.659
Within R-Squared	.736	.690	.733	.692	.734	.693	.734	.690

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Table 14: regression results from the fixed Effects model with the populist voting share as dependent variable and all the independent variables with the lag of contextual control variables for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable								
Income inequality	-.001 (.000)	-.000 (.000)						
Immigration			-.241** (.134)	-.108 (.072)	-.317* (.164)	-.107 (.066)		
AZC					-.010 (.010)	-.005 (.005)		
Immigration * AZC					.054 (.163)	.012 (.068)		
Unemployment							.120 (.241)	-.016 (.206)
Control variables								
Population	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000*** (.000)	-.000** (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-.101 (.451)	-.592*** (.182)	-.134 (.448)	-.485*** (.154)	-.140 (.448)	-.446*** (.150)	-.083 (.455)	-.583*** (.173)
Crime rate lag	.000** (.000)	.000 (.000)	.000 (.000)	.000* (.000)	.000 (.000)	.000** (.000)	.000 (.000)	.000 (.000)
Elderly people	.325*** (.089)	.119** (.053)	.310*** (.085)	.140** (.058)	.312*** (.086)	.140** (.055)	.327*** (.090)	.118** (.053)
Young people	-.123 (.133)	-.042 (.075)	-.005 (.140)	-.009 (.076)	-.007 (.142)	-.003 (.075)	-.124 (.134)	-.045 (.071)
High educated	.029** (.013)	.007 (.024)	.028** (.014)	.009 (.024)	.028** (.014)	.009 (.023)	.029** (.013)	.007 (.025)
Low educated	-.026 (.032)	.039 (.043)	-.022 (.032)	.034 (.040)	-.022 (.032)	.033 (.040)	-.025 (.032)	.038 (.039)
Mobility lag	.000 (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Turnout	-.517*** (.057)	-.557*** (.078)	-.506*** (.049)	-.569*** (.073)	-.506*** (.050)	-.571*** (.073)	-.492*** (.057)	-.555*** (.072)
Income lag	-.003*** (.001)	-.003*** (.000)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)
Constant	.756*** (.236)	1.029 (.111)	.765 (.233)	.982 (.092)	.764 (.233)	.963 (.089)	.727 (.239)	1.025 (.100)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.223	.672	.208	.668	.213	.669	.226	.671
Between R-Squared	.054	.667	.042	.626	.044	.644	.055	.663
Within R-Squared	.731	.689	.733	.690	.733	.691	.731	.689

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Appendix J – Robustness, random effects model

Table 15: regression results from the random effects model with the populist voting share as dependent variable and all the independent variables for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Group variable	Municipality	COROP	Municipality	COROP	Municipality	COROP	Municipality	COROP
Independent variable								
Income inequality	-.001 (.000)	- .001*** (.000)						
Immigration			.153*** (.046)	.044 (.035)	-.191*** (.049)	.078** (.037)		
AZC					-.007 (.007)	.003 (.005)		
Immigration * AZC					-.153* (.078)	-.098* (.058)		
Unemployment							-1.269*** (.162)	-1.328*** (.160)
Control variables								
Population	-.000 (.000)	- .000*** (.000)	-.000** (.000)	-.000** (.000)	-.000 (.000)	-.000** (.000)	.000 (.000)	-.000 (.000)
Share women	-1.534*** (.202)	- .913*** (.166)	-1.824*** (.202)	-1.123*** (.166)	-1.837*** (.203)	- 1.273*** (.165)	-1.458*** (.455)	-.843*** (.164)
Crime rate	.000 (.000)	-.000** (.000)	.000 (.000)	-.000*** (.000)	.000 (.000)	-.000** (.000)	.000 (.000)	-.000* (.000)
Elderly people	.604*** (.041)	.440*** (.036)	.622*** (.040)	.489*** (.036)	.621*** (.040)	.506*** (.036)	.659*** (.039)	.508*** (.034)
Young people	.248*** (.060)	.267*** (.047)	.268*** (.059)	.346*** (.046)	.278*** (.059)	.324*** (.046)	.332*** (.056)	.381*** (.043)
High educated	.130** (.005)	.126*** (.005)	.129*** (.005)	.124*** (.005)	.129*** (.014)	.124*** (.005)	.127*** (.005)	.123*** (.005)
Low educated	.262*** (.032)	.271*** (.010)	.266*** (.010)	.277*** (.010)	.266*** (.010)	.274*** (.010)	.281*** (.010)	.293*** (.010)
Mobility	-.000** (.000)	-.000 (.000)	-.000 (.000)	-.000 (.000)	.000 (.000)	-.000 (.000)	-.000** (.000)	-.000 (.000)
Turnout	-.454*** (.024)	- .476*** (.024)	-.467*** (.024)	-.508*** (.023)	-.468*** (.024)	-.530*** (.023)	-.576*** (.026)	-.616*** (.000)
Income	-.000 (.000)	.000*** (.000)	-.000 (.000)	-.000 (.000)	-.000*** (.000)	-.000 (.000)	-.001*** (.000)	-.001*** (.000)
Constant	1.074*** (.102)	.820 (.084)	1.209 (.103)	.913 (.085)	1.212 (.104)	1.006 (.084)	1.170 (.101)	.921 (.083)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.537	.531	.537	.531	.539	.539	.543	.538
Between R-Squared	.513	.617	.511	.675	.516	.704	.513	.651
Within R-Squared	.566	.533	.564	.526	.564	.525	.576	.540

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Appendix K – Robustness, Left- and right-wing populism

Table 16: regression results from the fixed effects model with the left-wing populist voting share as dependent variable and all the independent variables for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable								
Income inequality	-.001*** (.000)	-.000 (.000)						
Immigration			-.112** (.056)	-.007 (.042)	-.135** (.067)	.006 (.042)		
AZC					.014** (.006)	-.001 (.003)		
Immigration * AZC					.073 (.064)	.001 (.031)		
Unemployment							.757*** (.159)	.674*** (.193)
Control variables								
Population	-.000*** (.000)	-.000 (.000)	-.000*** (.000)	-.000* (.000)	-.000*** (.000)	-.000 (.000)	-.000*** (.000)	-.000 (.000)
Share women	-.241 (.212)	-.025 (.099)	-.284 (.210)	-.018 (.120)	-.306 (.212)	-.022 (.116)	-.235 (.215)	-.109 (.121)
Crime rate	.000** (.000)	.000** (.000)	.000** (.000)	.000** (.000)	.000** (.000)	.000** (.000)	.000*** (.000)	.000* (.000)
Elderly people	.081** (.032)	.016 (.027)	.077** (.031)	.021 (.028)	.088*** (.033)	.021 (.028)	.100*** (.033)	.014 (.027)
Young people	-.195 (.072)	-.098** (.041)	-.034** (.016)	-.035* (.041)	-.147* (.076)	-.082* (.042)	-.192*** (.073)	-.094** (.028)
High educated	.008 (.007)	.010 (.010)	.007 (.007)	.008 (.011)	.007 (.008)	.007 (.011)	.005 (.007)	.005 (.011)
Low educated	-.037** (.017)	-.040** (.019)	-.034** (.016)	-.035* (.018)	-.033** (.017)	-.035* (.018)	-.030* (.016)	-.032* (.017)
Mobility	.000 (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Turnout	-.153*** (.050)	-.169** (.064)	-.192*** (.045)	-.186*** (.059)	-.191*** (.045)	-.186*** (.058)	-.125** (.049)	-.129** (.062)
Income	-.001** (.000)	-.001*** (.000)	-.001*** (.000)	-.002*** (.000)	-.001*** (.000)	-.002*** (.000)	-.001*** (.000)	-.002*** (.000)
Constant	.370*** (.124)	.238 (.055)	.409 (.122)	.266 (.051)	.411 (.122)	.268 (.050)	.300 (.126)	.243 (.048)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.333	.634	.310	.631	.335	.631	.347	.639
Between R-Squared	.027	.597	.015	.601	.023	.601	.030	.578
Within R-Squared	.774	.710	.770	.708	.770	.708	.775	.714

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Table 17: regression results from the fixed effects model with the right-wing populist voting share as dependent variable and all the independent variables for the selected years.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable								
Income inequality	-.001*** (.000)	.001* (.000)						
Immigration			-.189* (.106)	-.130*** (.041)	-.163 (.131)	-.130*** (.046)		
AZC					-.012 (.009)	-.007 (.004)		
Immigration * AZC					.077 (.137)	.018 (.061)		
Unemployment							.617*** (.187)	-.742*** (.152)
Control variables								
Population	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-.101 (.370)	-.697*** (.189)	-.118 (.378)	-.548*** (.152)	-.138 (.479)	-.508*** (.144)	-.114 (.365)	-.542*** (.159)
Crime rate	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000** (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Elderly people	.339*** (.070)	.094* (.076)	.230*** (.069)	.109** (.048)	.220*** (.072)	.108** (.046)	.223*** (.068)	.094** (.043)
Young people	.057 (.103)	.023 (.076)	.119 (.110)	.035 (.072)	.115 (.112)	.039 (.074)	.053 (.099)	.015 (.068)
High educated	.021* (.011)	-.003 (.022)	.022* (.012)	.002 (.020)	.021* (.012)	.002 (.020)	.024** (.011)	.002 (.021)
Low educated	.013 (.022)	.078** (.036)	.013 (.022)	.068** (.033)	.012 (.022)	.067** (.032)	.007 (.022)	.068 (.032)
Mobility	.000 (.000)	.000 (.000)	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Turnout	-.364*** (.034)	-.384*** (.067)	-.313*** (.031)	-.379*** (.034)	-.314*** (.031)	-.381*** (.033)	-.364*** (.000)	-.425*** (.032)
Income	-.003*** (.001)	-.001*** (.001)	-.002*** (.001)	-.001*** (.000)	-.002*** (.001)	-.001*** (.000)	-.002*** (.001)	-.001*** (.000)
Constant	.406 (.189)	.835 (.096)	.374 (.247)	.761 (.083)	.371 (.191)	.742 (.083)	.445 (.187)	.824 (.084)
Observations	2,463	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Overall R-Squared	.475	.740	.455	.725	.441	.729	.466	.741
Between R-Squared	.067	.314	.052	.188	.054	.221	.067	.340
Within R-Squared	.840	.785	.837	.787	.837	.788	.838	.787

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Appendix L – Robustness, large and small municipalities

Table 18: regression results from the fixed effects model with the populist voting share as dependent variable and all the independent variables for the selected years for the large municipalities.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable								
Income inequality	-.001 (.000)	.002 (.001)						
Immigration			-.259 (.164)	-.212** (.085)	-.463** (.199)	-.271*** (.091)		
AZC					-.014 (.016)	-.015 (.012)		
Immigration * AZC					.385* (.206)	.100 (.116)		
Unemployment							1.004** (.391)	-.852** (.394)
Control variables								
Population	-.000*** (.000)	-.000*** (.000)	-.000*** (.000)	-.000** (.000)	-.000*** (.000)	-.000** (.000)	-.000*** (.000)	-.000*** (.000)
Share women	-.042 (1.089)	-.324* (.455)	.067 (1.111)	-.392 (.423)	-.117 (1.067)	-.370 (.410)	-.027 (1.138)	-.461*** (.526)
Crime rate	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Elderly people	.429** (.184)	.083 (.140)	.391** (.177)	.134 (.139)	.403** (.174)	.147 (.138)	.469** (.188)	.087 (.142)
Young people	.144 (.254)	-.141 (.164)	.266 (.290)	-.080 (.152)	.228 (.294)	-.061 (.138)	.085 (.262)	-.144 (.170)
High educated	.058** (.023)	.050 (.039)	.061** (.023)	.055 (.040)	.060** (.023)	.055 (.039)	.052** (.025)	.043 (.041)
Low educated	.131 (.080)	.180** (.074)	.139* (.081)	.178** (.073)	.138* (.082)	.176** (.071)	.133* (.080)	.194** (.076)
Mobility	.000 (.000)	.000** (.000)	-.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000** (.000)
Turnout	-.357*** (.109)	-.391*** (.122)	-.391*** (.101)	-.440*** (.115)	-.400*** (.102)	-.449*** (.114)	-.294** (.112)	-.339** (.127)
Income	-.003* (.001)	-.004*** (.001)	-.004** (.002)	-.005*** (.001)	-.003* (.002)	-.005*** (.000)	-.004** (.002)	-.005*** (.001)
Constant	.541 (.542)	.799 (.234)	.502 (.553)	.883 (.198)	.491 (.534)	.879 (.191)	.450 (.574)	.795 (.253)
Observations	595	595	595	595	595	595	595	595
Overall R-Squared	.195	.625	.156	.617	.153	.622	.224	.632
Between R-Squared	.082	.510	.053	.471	.048	.498	.103	.511
Within R-Squared	.717	.679	.715	.679	.717	.681	.721	.681

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.

Table 19: regression results from the fixed effects model with the populist voting share as dependent variable and all the independent variables for the selected years for the small municipalities.

Dependent variable = populist voting share	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects	Time and municipality fixed effects	Time and COROP fixed effects
Independent variable								
Income inequality	-.001** (.000)	.001 (.001)						
Immigration			-.232 (.196)	-.155** (.066)	-.112 (.221)	-.160*** (.068)		
AZC					.009 (0.15)	-.008 (.006)		
Immigration * AZC					-.447* (.264)	.070 (.095)		
Unemployment							-.242 (.320)	-.580* (.299)
Control variables								
Population	-.000** (.000)	-.000 (.000)	-.000** (.000)	-.000** (.000)	-.000** (.000)	-.000 (.000)	-.000** (.000)	-.000 (.000)
Share women	-.064 (.524)	-.883*** (.237)	-.116 (.537)	-.738*** (.207)	-.046 (.523)	-.724*** (.222)	-.065 (.526)	-.767*** (.212)
Crime rate	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Elderly people	.213** (.095)	.068 (.056)	.220** (.094)	.093 (.069)	.209** (.099)	.091 (.068)	.211** (.095)	.066 (.055)
Young people	-.228 (.158)	-.088 (.083)	-.149 (.171)	-.055 (.094)	-.180 (.177)	-.063 (.100)	-.233 (.157)	-.104 (.082)
High educated	.025 (.015)	.004 (.023)	.025 (.015)	.010 (.021)	.026* (.015)	.009 (.021)	.026* (.015)	.007 (.022)
Low educated	-.060** (.030)	-.007 (.048)	-.059** (.030)	-.014 (.046)	-.060** (.030)	-.014 (.046)	-.0664** (.030)	-.013 (.045)
Mobility	.000 (.000)	.000 (.000)	-.000 (.000)	-.000 (.000)	.000 (.000)	-.000 (.000)	.000 (.000)	-.000** (.000)
Turnout	-.604*** (.054)	-.592*** (.080)	-.564*** (.048)	-.586*** (.074)	-.565*** (.048)	-.585*** (.074)	-.581*** (.053)	-.614** (.071)
Income	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)	-.003*** (.001)
Constant	.858 (.275)	1.225 (.157)	.850 (.277)	1.146 (.142)	.821 (.270)	1.140 (.152)	.860 (.275)	1.217 (.145)
Observations	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868
Overall R-Squared	.576	.699	.594	.690	.572	.691	.587	.697
Between R-Squared	.324	.700	.358	.602	.322	.629	.348	.688
Within R-Squared	.746	.707	.745	.709	.745	.709	.744	.707

Notes: ***p<0.01, **p<0.05 and *p<0.10. Standard error in parentheses. Number of individual observations: 2,463.