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Explaining Eurosceptic Voting Behaviour

THE CONNECTION BETWEEN EU DISCONTENT AND EUROSCEPTICISM

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The Connection Between EU Discontent and the Eurosceptic Voting Pattern

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Abstract

As political discontent and Eurosceptic voting behaviour have almost doubled in the last decade, the research presented in this thesis attempts to give a new dimension to this Geography of EU Discontent. It includes variables about trust in and satisfaction with the European Union (EU) and the national government, depicting political support and the underlying reason why people vote for a specific party. By doing so it elaborates on Dijkstra's attempt to explain the growing discontent in the EU (Dijkstra et al., 2019).

First, a multiple linear regression is conducted in which the share of people voting for a Eurosceptic party was regressed on regional socio-economic trends and characteristics, the trust and satisfaction variables, as well as the variables freedom of the press, life satisfaction and knowledge of the EU. It appears that regions that are on average less satisfied with the functioning of the EU show higher shares of votes for Eurosceptic parties. Furthermore, regions with a high GDP per capita, high employment rates, high life satisfaction values and few non-EU citizens show fewer votes for Eurosceptic parties. Countries that have a relatively high freedom of the press also encounter low shares of Eurosceptic votes. On the other hand, people who distrust their own national government tend to vote more for Eurosceptic parties, indicating that discontent also sets its base in a lack of trust in the national government rather than in a lack of trust in the EU.

Second, a mediation analysis is conducted in which the underlying mechanism was tested between the Eurosceptic voting pattern on the one hand, and the trust and satisfaction variables on the other hand. It appears that the relation between trust in and satisfaction with the EU and the Eurosceptic voting pattern is mediated by employment rates and shares of people at risk of poverty. This entails that it is more likely that in regions with high unemployment rates and high shares of people at risk of poverty a distrust in and dissatisfaction with the functioning of the EU is translated to a Eurosceptic voting pattern.

It is important to state that this research is conducted based on micro data converted to a macro scalar level (NUTS2 and NUTS1). Such a method enables ecological fallacy, entailing that the research may show significant results, but it does not entail that the individual shows significant corresponding values. To solve this problem, further research should adopt a multi-level modelling approach using micro data on trust in and satisfaction with the functioning of the EU and the national government in order to fully understand the underlying reason why people vote for specific parties.

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Chapter 1: Introduction

1.1. Growing Discontent

Since the emergence of the European Union (EU), many countries have benefited from its membership. Trade has become much easier due to the implementation of the single market and less fortunate regions have improved by the redistribution of the EU budget among others (European Commission, 2020). However, a uniform legislative system had to be created to achieve such a single market. This resulted in the EU implementing rules and directives, as well as limitations and restrictions. With these rules and restrictions come displeasures and resentment and are often blamed to be one of the reasons for the unfortunate situation people are in (Hobolt, 2016). The best example of these displeasures and resentment would be the British referendum on June 23, 2016, in which the UK citizens voted to leave the EU (Dijkstra et al., 2019). Among other reasons, the British people expressed their concerns about the growing role of the EU in immigration and multi-culturalism, eventually leading to a vote for the British to leave the EU.

Other countries show similar displeasures and resentment. Crossing the Canal, in France an increase in fuel prices lead to a series of protests now known as the “Yellow Vest Protests” (Hamburger, 2019). The reason for these fuel increase were deemed necessary to reach EU imposed climate directives, leading to large protests. However, the discontent appeared to be about more than just a rise in fuel prices. After withdrawing the fuel price increase, the protests still occurred (NOS, 2018). It shifted to discontent about various, less specific subjects, like the gap between rich and poor or the established political order. The feeling of discontent and being left-behind is larger than ever, especially for those outside large cities, creating a lack of trust in the political climate (Hamburger, 2019).

An other example took place on 1 October 2019. There was chaos in the Netherlands and its political capital the Hague. From all parts of the country, farmers came on their tractors to the Hague. On their way, they blocked highways, important crossroads and roundabouts, and took their stand on the Malieveld, the protests destined area of the city (NOS, 2019). The reason for their protest was the verdict by the Dutch Council of State about the current nitrogen emissions in the Netherlands. The current strategy, the Programma Aanpak Stikstof (PAS, Program Approach Nitrogen), is lacking an ecological test in its procedure. Since 2009, this strategy has been giving away permits for activities with high nitrogen emissions. These emissions were much higher than the restrictions imposed by the EU National Emission Ceiling Directive, especially close to Natura 2000 regions (European Environment Agency, 2020). As a result, many construction projects and agricultural activities have been postponed. The protests of the farmers have been a response to the proposal of Commission Remkes to, among other things, halve the farmers’ cattle close to these Natura 2000 areas (Remkes et al.

(2019). About 46% of the nitrogen emissions in the Netherlands comes from agricultural activities (See Figure 1).

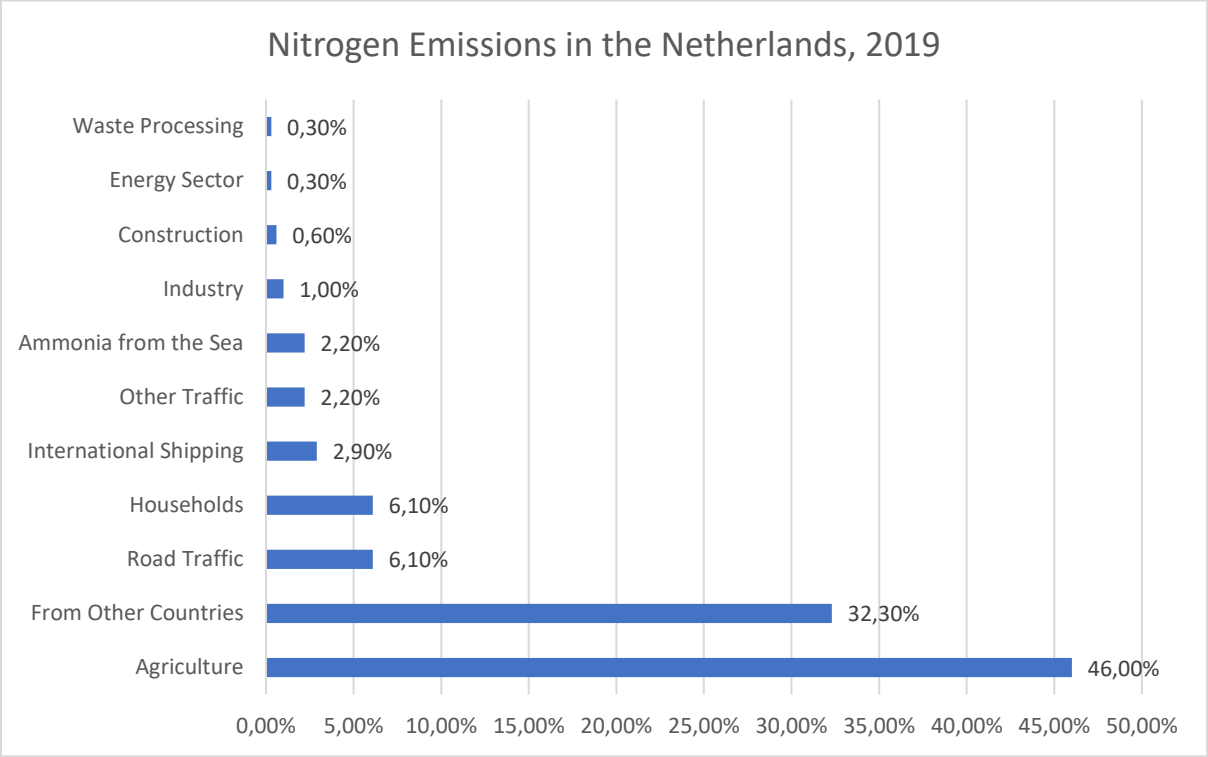


Figure 1: Main Nitrogen Emissions in the Netherlands, 2019. (Source: Remkes et al., 2019).

1.2. Political Response

These rules and regulations imposed by the EU have been heavily criticized by national politics over whole Europe. The Dutch political parties. For example, the right-winged PVV (Partij Voor de Vrijheid) and the Christian SGP (Staatkundig Gereformeerde Partij) have stated that the restrictions on nitrogen emissions are unnecessary, as these emissions are not measurable (NOS, 2019). The right-winged FvD (Forum voor Democratie) states that this crisis is an example of the administrative collision between Dutch and EU regulations causing an imaginary problem (FvD, 2019). In France, Marine Le Pen's National Rally promised a referendum on a possible Frexit in the lost presidential elections in 2017 (Beta Italia, 2019). The "Government of Change" is a alliance between two political parties, acting as the main political force in Italy. These parties are known for their very critical positions towards the EU and their lack of trust in the EU integration project (Beta Italia, 2019). Other large Eurosceptic parties in Europe are Alternative for Germany (Germany), FIDESZ (Hungary), Swedish Democrats (Sweden) and the Austrian Freedom Party (Austria).

Chapter 2: Research problem

2.1. Rise of Populism

Altogether, Brexit in the United Knigdom, the “Yellow Vest Protests” in France and the Nitrogen Crisis in the Netherlands are examples that EU rules and legislation have massive impact on the national society and such impacts can be at the dismay of the people. Indeed, these rules and regulations are results of the collective efforts of all EU member states’ representatives of their democratically elected governments and representatives from the election for the European Parliament. However, it is likely that such examples will not be uncommon in the future and may contribute to the growing discontent among Europeans. Right-wing populist parties have benefited from this growing discontent about the role of the EU, as their votes have almost doubled in the last 10 years (Dijkstra et al., 2019). The European Commission has examined this phenomenon by selecting the parties that have Eurosceptic viewing points (Figure 2). They took the votes for these parties in the most recent national election and mapped them as a percentage of the total votes, creating a “Geography of EU Discontent”. When analysing this voting behaviour, it appeared that areas with a low employment rate and a low education level tend to vote relatively more on Eurosceptic parties.

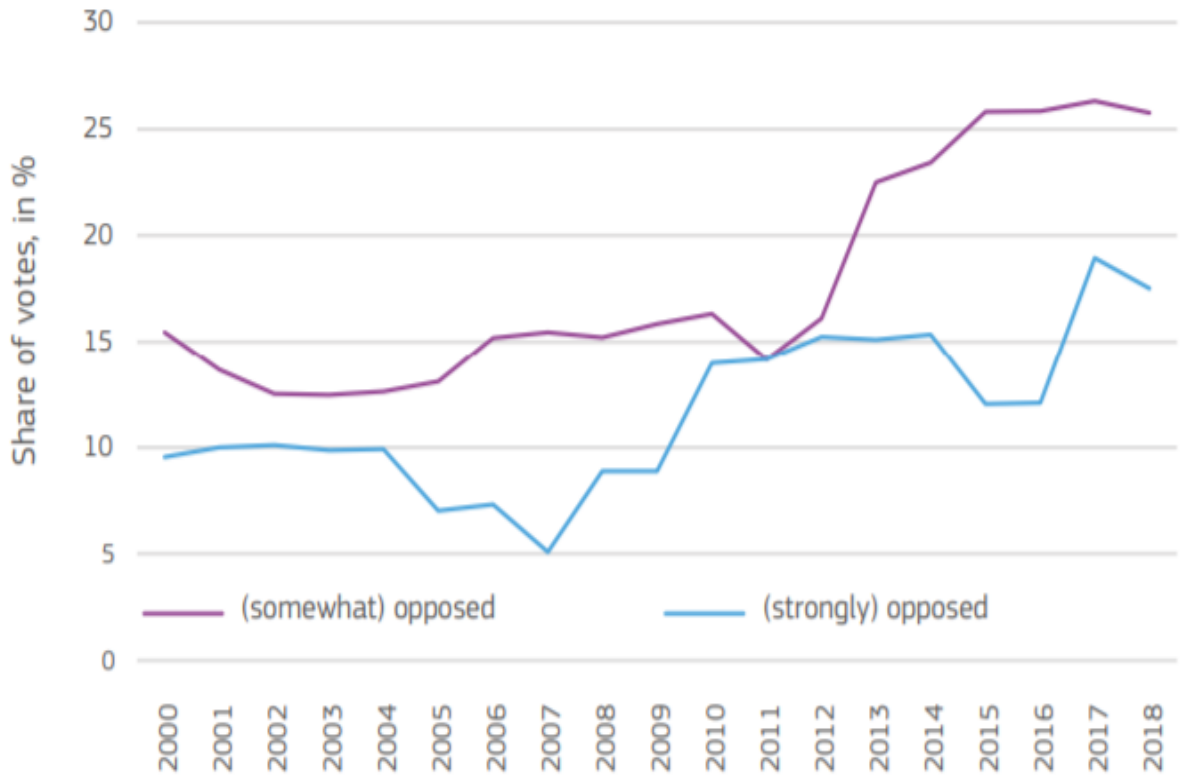


Figure 2: Share of votes for parties (somewhat) opposed and (strongly) opposed to further European integration of the total amount of votes from the in 2018 latest election (Source: Dijkstra et al., 2019).

However, not only in Europe is populism on the rise. In many places there are feelings of discontent and feelings of being left-behind by current politics (Rodríguez-Pose, 2018). For example, Jair Bolsonaro is a former military captain who became a far right-wing, populist politician and won the Brazilian elections in 2018 (the Economist, 2019). Another example is Narendra Modi in India, who was re-elected in 2019 and is enforcing a pro-Hindu majority agenda around the goal of abandoning secularism (separation of government and religion). In many countries, populism is on the rise and taking many different forms (Merelli, 2019). Taking these events into account, one can argue that there is something debatable about the reasoning in the report of Dijkstra et al. (2019), as they assumed that all votes for Eurosceptic parties represent an individual that is Eurosceptic. Indeed, this can be the case. But a voter can also vote for such a party because one agrees with other points of view. It does not necessarily mean that the voter is Eurosceptic. The opposite can occur as well; one can be extremely Eurosceptic, but vote for a non-Eurosceptic party as the voter deems other viewing points as more important. This underlines that the link between voting patterns and discontent is far from certain. Despite this, many studies have taken the Eurosceptic voting behaviour as determinant for EU discontent, since a person's discontent can be expressed with his or her vote (Rodriquez-Pose, 2018).

2.2. Research Aim and Structure

As the link between ones vote and discontent is unclear, this research will step beyond this link. The Eurobarometer assessed the level of trust in the European Union and the level of satisfaction with the functioning of the European Union on an individual level. This data can be used to express the reason why an individual votes for a particular party (Christensen & Laegreid, 2005). By including trust and satisfaction variables, EU discontent can be connected to the Eurosceptic voting pattern. In this research, the following question will be central:

How are trust and satisfaction, or distrust and dissatisfaction, in the functioning of the European Union translated to a Eurosceptic voting pattern?

To answer this question, an extensive theoretical background of existing literature is created to fully understand the concepts of discontent, populism and Euroscepticism; what differentiates them and what factors influence them. A conceptual model has been created to visualize this theoretical background. Second, the methodology of this research is elaborated upon, consisting of two parts. The first part contains a multiple linear regression analysis in which the method used by Dijkstra et al. (2019) is expanded with several new variables, including the trust and satisfaction scores of both the EU and the national government. Important to state is that Dijkstra used data predominantly on a LAU2 level. This needed to be transformed to a higher scale in order to meet the NUTS2 level (and NUTS1 for

Germany, Italy and the United Kingdom) of the Eurobarometer data. This regression helps answering the question what variables influence the Eurosceptic voting behaviour directly. The second part contains a mediation analysis in which it is assessed what variables influence, or mediate, the relationships between trust and satisfaction on the on hand, and the Eurosceptic voting pattern on the other hand. The variables used for this analysis as mediating variables are the GDP per Capita, the share of People at Risk of Poverty, the share of people 65+, the share of people with tertiary education level and the employment rate.

Chapter 3: Theoretical framework

3.1. Happiness

To entangle the subject of discontent, it is important to focus on the opposite first. What makes an individual content? What makes one happy? In economics, happiness is defined as utility, which can be measured and compared across people (Thorbecke & Babcock, 2002). Using a utility maximising model, individuals try to maximize their happiness, driven by the desire to feel good. With an indifference curve, the amount of utility is determined so that the overall social outcome will be a situation where no one could be happier without someone else being less happy; the Pareto Optimum (Gopalakrishnan, 2008).

Opposite to economics, geographers have a different approach to happiness. Here is argued that happiness can vary across space and time. For example, happiness is relatively more overrated in countries that have a more individualistic approach to life. In countries more focused on personal modesty, happiness is underrated. Thus, Lu and Gilmore (2004) state, happiness is embedded in culture. Furthermore, happiness is also a concept that is frequently put in perspective taking context into account. Sen (1987) concluded that an individual who lives a life of hope and fortune may be hit harder in terms of happiness by downfalls than one who has had a live of misfortune. When an individual evaluates their happiness, one tends to look and compare what they have with their neighbours. The position an individual has in society, along with the level of inequalities in that society, has a strong effect on how one rates their happiness (Ballas, 2013). This perspectival argument can be linked to the theory of "left-behind places" or "places that do not matter" by Rodríguez-Pose (2018). People may grow discontent, and thus relatively unhappy, when they feel like they life in a place that is neglected by (inter)national politics. They compare their position with others in other regions, giving them the feeling of being left behind. This theory will be elaborated upon further in section 3.3.

Besides the context and perspective, there are other, more concrete, factors that influence ones happiness. The World Happiness Report 2020 (Helliwell, 2020) summarized several important factors, from which age, education, employment and income will be elaborated upon further. Multiple studies (Clark, 2003; Blanchflower & Oswald, 2008; Ferrer-i-Carbonell & Gowdy, 2005) have found a 'U-shaped' relation between age and happiness. People rate their happiness higher when they are young. When they grow older, their happiness decreases as more time has to be spend on work to ensure their costs of living. The rate goes up again as people reach the age of elderly. However, interpreting these studies might be tricky, as cohort data is used for these analyses. These effects only influence specific cohorts, biasing the results (Dolan et al., 2007). Furthermore, the impact of ageing on happiness knows geographical variation as well (Steptoe et al., 2015). Wealthy, western countries experience the above-described U-shape, but the former Soviet Union shows an increase, South America

a decrease and Sub-Saharan Africa experiences no change. According to Morgan et al. (2015), there appears to be a link between happiness, age and wealth. Wealthier countries tend to become happier when ageing, while the less wealthy stabilize or decrease.

Second, the level of education of an individual might have an impact on ones happiness. Multiple studies suggest that happier people are often higher educated (Hartog & Oosterbeek, 1998; Stutzer, 2004). This might be so because the higher educated receive a higher wage, as compared to the lower educated with which they can increase their happiness. Education could also have a key contribution to highlight the possibilities for a good life (Roberts, 2013). On the other hand, the living standards and expectations of the higher educated might increase as well because of this higher income, making them more unhappy (Gibbs, 2015). Thus from this, it can be concluded that employment status and income play a role as well.

Clark (2003) showed that whether an individual is employed is strongly associated with one's happiness as well. People tend to rate their happiness higher when one is employed. Long-term unemployment has severe negative impacts on a person's happiness. Besides the loss of income and the stress it brings, reasons are sought in the absence of occupations and activities. Lastly, but more controversially, there is a weak positive effect of absolute income on how people rate their happiness (Clark, 2003). As one earns more, one is happier. However, this relation is with diminishing marginal returns. An increase in income makes lower income groups happier while an increase in income has little to zero impact on higher income groups**.** Easterlin (1974) studied this phenomenon for the United States and came up with the Easterlin Paradox. This paradox entails that happiness is directly correlated to income at a certain point in time, but over time happiness will not increase when income increases. However, this paradox has been heavily criticized, as it is based upon a generalization (Oswald, 2005). Frank (2005) argued that the discussion should not be about absolute income, but about relative income. An individual evaluates happiness based on their relative position in the national income distribution. This can be linked to context and perspective to be important when evaluating happiness, as one compares with others.

3.2. Societal Unease

Thus, happiness is largely affected by context and perspective and varies between people based on demographic and socio-economic features, like age, education and income. Switching the approach, these features are as well present in a more general concept of societal unease or societal discontent (Steenvoorden, 2015). This theory describes five elements that lead to a feeling of societal unease or discontent among the population. The centre of the argument is a negative outlook on developments in society, as discontent points to deterioration of current circumstances. It entails a concern among citizens about the precarious state of society, which is constituted by perceived unmanageable deterioration of

the following fundamental aspects of society (Figure 3): distrust of human capabilities, loss of ideology, decline of political power, decline of community and socio-economic vulnerability.

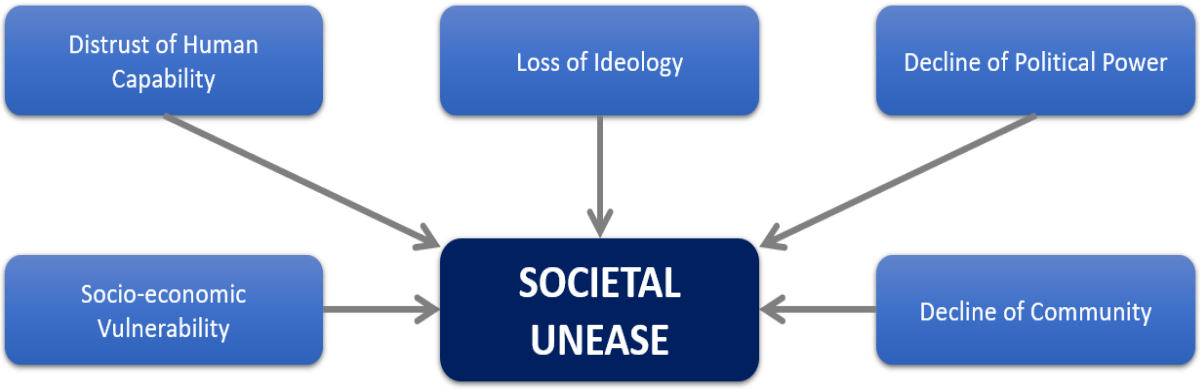


Figure 3: The five fundamental aspects of society causing societal unease and discontent (Source: Steenvoorden, 2015).

Distrust of human capability is intertwined with concerns about the limitations to make improvements using policies and technological innovations. People grow aware of possible downsides of technological progress and the human inability to prevent or overcome these downsides. This results in a sense of collective powerlessness. They believe that people could completely control all economic, social and political aspects of society disappeared, leaving the emphasis on human failure. For example, in case of flooding, the government has failed in water management and in case of a tsunami, people grow angry about the failure of the warning system (Steenvoorden, 2015). Furthermore, the new policies and technological innovations bring new risks, further emphasising the human failure (Beck, 2006). Examples are nuclear waste, terrorist attacks or climate change.

Second, societal discontent is influenced by the loss of ideology in a society. Here, ideology may be defined by a vision or account of the existing order defining what is good for society, or a desire what the future should look like and how the society can achieve this desire (Heywood, 2003). Ideology and this utopian desire can be seen as secular alternatives, in which ideology is the means to an end, giving the people and the collective society perspective and a goal to live for. The loss of this concept results in a feeling that society is heading in the wrong direction or in no direction at all. People get the feeling that the future can only get worse. This feeling is enhanced by the welfare state as the dominant model (Steenvoorden, 2015). In a welfare state, both left and right politics focus only on pragmatic politics, rather than a distinct ideology. Such a state conducts 'there-is-no-alternative' politics. This deprives the society of the feeling of improvements, as there is no common idea of how a better society would look like and what a society can and should do to reach this. Furthermore, it is argued that a lack of ideology in welfare states is a new ideology (Heywood, 2003). It can be seen as an attempt to reach a broad ideological consensus, in which one set of ideas is superior. For example, the EU has established such a set of ideas in multiple countries based on the idea of globalism, in which the free market and liberal-democratic values take a central position. This

idea reaches farther than European borders, as these capitalist values are spreading across the whole world, depriving societies from former ideologies and thus, from the utopian desire.

Third, societal unease may be caused by a decline in political power. A country becomes more and more unable to change things for the better because the national government lacks the means to do so. Steenvoorden (2015) lists three possible causes. First, the process of depoliticization decreases the responsibility and accountability of political actors in the decision making process (Hay, 2007). This entails that certain issues are seen as non-political and should be resolved by either experts or by market processes. As a result, parts of the political process are done by private parties, like banks, multinationals (see below) and consultancies. Second, countries tend to transfer power from the national to the supranational level. Political unions like the EU, the ASEAN and the UN increase in political power at the expense of the members' national power, often criticized by their citizens (Hooghe & Marks, 2005). Lastly, a decline in political power is caused by a process of globalization, in which non-democratic organizations, like multinationals, increase in power due to their economic weight and importance for the country.

Next, societal unease may contain a feeling caused by a decline of community. This entails to a perceived decline in shared norms, values and goals within a nation. This process is hard to influence by politics, as it does not take place in the political realm. The social cohesion within and between communities declines due to increasing individualization and connectedness (Chan et al., 2006). Central in this is the concept of 'moral aloneness', best described by a lack of relatedness and belonging to values, symbols and patterns in a community (Fromm, 1960). People need a sense of belonging to a community (e.g. through religion or nationalism) rather than focusing only on individualism. However, the decline of community goes along with the process of globalization. in the end of the 18th century, Tönnies theorized about the shift from a society based on gemeinschaft to a society based on gesellschaft (The city reader, 2011). Gemeinschaft is the sense of a local community with strong affective bonds in which solidarity is central, while gesellschaft is based on the individual creating a social network based on its own preferences, rather than on geographical location. Although this process has been going on for some time, the Four Freedoms of Movement in the EU has enhanced its effect even more. People from different European countries are able to create their own social network where desired. This results in a melt pot of different norms, values and goals within nations, strengthening the feeling of decline of community in the country of destination.

Lastly, socio-economic vulnerability may increase the sense of societal unease as well. It entails the rising instability of socio-economic positions in society. It is caused by multiple, entangled reasons in which the rising gap between rich and poor is central and this gap is ever increasing. According to Piketty (2013) the share of national income that accrues to capital owners increases, while the share that accrues to workers declines. Furthermore, the returns to capital are positively related to the amount of wealth, thus the more capital one has, the

richer he or she gets. In other words, capital owners are getting wealthier and wealthier, while workers are not. The societal unease created by this lies in the fact that middle-class workers often possess only human capital rather than physical capital (Steenvoorden, 2015). These people depend on knowledge and skills to protect its socio-economic position. However, contrary to physical capital, human capital cannot be put to savings and can only be passed on the next generation to a limited extend. Furthermore, socio-economic positions are changing due to changes in the labour market. The phenomenon of job polarization entails that, within the changes of the labour market, high-skilled and low-skilled professions increase in numbers at the expense of the middle-skilled jobs (Egger et al., 2016). This can be explained by the role of automation and robotization of production processes. Although this may create new high skilled jobs, it drives out middle-educated workers. These workers often have trouble finding a new job and are difficult to reschool because of their specific skillset (Autor & David, 2015). All this is at the expense of their socio-economic certainty.

3.3. Left-behind places

When looking at the geography of societal unease, Rodriquez-Pose (2018) elaborates upon this by discussing the narrative about places that matter and places that do not matter. Large cities, like London, Tokyo, Paris and New York, are seen as the economic drivers of a country. To a certain extent, this is true indeed. But one cannot ignore the many medium-sized and small cities, that, with their quality of life, great skills and improvements in accessibility, have become an important source of economic growth. This has as result that within-country disparities have not increased; an increase which would have been expected if economic growth was driven by large cities only (Lessmann & Seidel, 2017). However, contrary to the large and middle-sized cities, many poor regions have remained stuck in the low-income trap and many formerly wealthy regions, like Detroit, have experienced long periods of decay. A combination of globalization and technological change caused a great inversion in employment and a new geography of jobs (Iammarino et al., 2019). This entails that regions that formerly were prosperous have known a combination of declining labour force participation, declining income per capita relative to the national average and massive job losses. On the other hand, metropolitan and urban areas have known increases in income and employment. Although disparities within and between European countries are way lower than in other countries, inequalities are present (Rodriquez-Pose, 2018). Persistent low levels of economic growth in have caused increasing economic and political instability, as described in the above. There reigns a feeling of “being left behind”.

One can summarize the five aspects in the model of societal unease in the concept of “left-behind places”. These places share the feeling that the national government has ignored and neglected them in the political process, which might be caused by the loss of ideology in the country, or by the loss of political power (McKay, 2018). The socio-economic situation of these places is often troublesome, due to their remoteness, to their lack of opportunity and to the

heavy competition of other places. Its people feel alienated from national politics due to the failure of successive governments to reverse the socio-economic decline (Coyle & Ford, 2017). Often there is a lack of an engaged and active community, while the connection to the wider economy is poor (Oxford Consultants for Social Inclusion, 2019). Characteristics of these places are high rates of unemployment, a high poverty rate, relatively lower education levels and ill health.

3.4. Populism

The societal unease in left-behind places can be expressed in populistic behaviour. Populism is a rather new phenomenon that remains a puzzle for scholars because of its sudden nature and because its political message is rather different from other parties (Cholova & De Waele, 2014). In the last decade, populist parties have gained a huge amount of support in almost every country in the world. They managed to come into office shortly after their creation or became the most powerful party in the opposition. Due to their nature, they are often referred to as Anti-Establishment Reform Parties (Sikk & Hanley, 2010). Their rhetoric separates the corrupt elites and the pure people, which always stand directly opposite of each other (Mudde, 2004). However, in literature, there is debate whether populism is a political discourse or an ideology. Some consider populism as merely a political strategy and thus, should be seen as a discourse (Albertazzi & McDonnel, 2008). On the other hand, populism may represent a specific vision of what society should ideally look like, thus should be seen as ideology (Mudde, 2004). However, both sides agree that a populist party can choose its own colour and position in the political spectrum, adopting an ideology or political discourse as desired, as the “chameleon of politics” (Mikucka-Wójtowicz, 2000).

The emergence and success of populist parties depend on a supply side and demand side for populistic politics (Cholova & De Waele, 2014). The demand side entails the society and its societal unease and the discontent in left-behind places as described in the previous. This dissatisfaction in society, fuelled by constant disappointment and no perspective for change, results in a desire for populist rhetoric. When this desire is present, it is up to populist parties to anticipate on the dissatisfaction and to respond by adopting a protest strategy against the ruling elite. The quality of this anticipation and response is key in the success of the party. By attracting the protest vote by depicting the people as the hard-working, virtuous and guileless base of society who are suppressed and exploited by the ruling elite, the populist party can accumulate a large support base in a short period of time (McClay, 2017).

However, a clear role for populism in democratic politics remains disputable. They grow large in support by attracting the protest vote, but once they come into government, they become the ruling elite they once criticized and they experience the same setback as mainstream political parties (Cholova & De Waele, 2014). This might be explained that it is very difficult to apply their populist rhetoric as most of this contains unrealistic goals of rapid

improvement. However, Castaño (2018) argues that populism is compatible in the democratic process, as it increases it's the level of participation of people. On the other hand, it results in certain tensions with the mainstream political parties. The relation between populism and democracy can therefor take various forms, depending on the role a populist party takes in the political arena.

3.5. Euroscepticism

Who the "people" and who the "elite" are may vary on different governmental levels. Over the last 15 years, the public opinion of the EU has been in deteriorated, with the British referendum to leave the EU as eye-catcher (Dijkstra, 2019). Populist parties around all European countries advocate to leave the EU or to decrease its power substantially. The degree of Euroscepticism can be distinguished between hard and soft Euroscepticism (Taggart & Szczerbiak). Soft Euroscepticism entails parties that have a sense that their national interest is at odds and thus, have concerns on certain policy areas, leading to the expression of opposition to the EU, but do not have any objection to European membership or European integration. Hard Euroscepticism, on the other hand, do have this principled objection to European membership and European integration and think their country should leave the EU.

This principled objection can be based on several things why political parties and its voters think their country should leave the EU. For example, they think the free movement of people has negative consequences for their country (Likic-Brboric et al., 2013). Wages are relatively higher in western European countries, while the wages are relatively lower in the Eastern European countries. Because of the free movement of people within the EU, workers from low-paying countries in Europe are able to move to work in high-paying countries. This first causes friction in the receiving country, as "foreigners" occupy jobs from "nationals". Second, it causes the phenomenon brain drain. The sending countries loose most of their high-educated workers, as the job opportunities for these workers are higher in high-paying countries (Boeri et al., 2012). Furthermore, these workers are often aged between their 20s and 30s, as this group is highly unemployed in Europe and not as embedded in their country as older groups, resulting in an increasing old-age dependency ratio (King et al., 2018).

A second objection might be the transnational economic redistribution of the European budget, especially in regard of the Cohesion Fund and the European Regional Development Fund. The Cohesion fund is meant for 'the member states whose gross national income per capita is less than 90% of the average in the European Union' (European Commission, 2020). Its aim is to combat economic and social disparities and to promote sustainable development. The European Regional Development Fund is aiming 'to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions' (European Commission, 2020). The objection from wealthier countries here is that their money is invested in countries that contribute less to the EU and that they do not see anything in return

(Pernicka et al., 2018). Added here can be the argument that the EU has become a complicated bureaucratic maze rather than an overarching Union (Kuus, 2011).

Studies have shown that high age, low education level and low income, frequently indicated as 'the Holy Trinity', influence a Eurosceptic voting behaviour, especially in the case of Brexit (Becker et al., 2017; Lee et al., 2018). These characteristics are relatively similar to the characteristics of the left-behind places, as discussed earlier. However, the link between the populist rhetoric and the deteriorating public opinion of the EU is far from certain and depends on the narrowness of the definition one uses (Dijkstra et al., 2019). The narrower the definitions, the less clear the link is, resulting in only 20% of the votes for the most populist parties going to parties that are strongly opposing the EU and only 35% of the votes for the most populist parties going to parties that are strongly opposing EU integration.

3.6. Political support

Thus, to better understand the relation between populism and Euroscepticism, the focus must be put on the reasons why one votes for a party and how political support is constructed. Analyses of political support have primarily focused on one-case studies or cross-national studies. Criado and Herreros (2007) argue that a combination of both helps to show that performance is the main aspect for political support. Ellinas & Lamprianou (2014) add that economic performance defines the level of trust the government gets from its citizens. Christensen and Laegreid (2005) elaborated on governmental trust. Overall, the general character of trust indicates that that people have trust in all governmental institutions when they trust one of them. Furthermore, the level of satisfaction with democracy influences trust in governments as well. In other words, people who are satisfied with the democratic process of their country generally tend to have high levels of trust in their government as well. However, it must be stressed out that there is not a one-factor explanation in trust in governmental institutions, as it is a mix of socio-economic characteristics of the people, ideologies in the country, stereotypes and the actual performance of the government and may differ not only between, but also within countries.

3.7. Media Discourse

Political support in a society, and opinions about certain topics in general, can be influenced heavily by the way the media in a country expresses certain topics. This so-called discourse entails the written and spoken communications that form a formal way of thinking and how individuals imbue reality with meaning (Ruiz Ruiz, 2009). The media can adopt a certain discourse that shapes the way people in a society think about certain topics. Discourses come in multiple forms and vary between countries. It is also reflected in multiple aspects of society. For example, … (XXXX) studied the differences how countries in the European Union depicted the economic crisis of 2008. Countries that were affected little by this crisis portrayed it as a

supra-national and external phenomenon with an important role for economic and business actors to resolve it. On the other hand, countries that were hit hard portrayed it as something domestic which had to be resolved by political actors. Furthermore, the way the EU is depicted and explained in the media is also part of the national media discourse. Studies of the European Parliament showed that in 2016, 44% of the Europeans do no know and do not understand how the European Union exactly works (European Parliament, 2016). This is primarily because it is not covered in the news or in schools. Another more concrete example is the influence of Russia on the Anti-EU discourse conducted by the Austrian far-right media (Weidinger et al., 2017). This shows that not only the domestic national government, but also foreign national governments can influence media discourses in countries.

3.8. Conceptual Model

Based on the theoretical framework above, the following conceptual model has been constructed (Figure 4). Whether a place is happy, is influenced by various factors and these factors overlap with aspects influencing societal ease and discontent. Distrust of human capability, decline of community, decline of political power, loss of ideology and socio-economic vulnerability create an environment in which places get the feeling that they do not matter and that they are being left behind in politics. Certain media discourses can influence this sense of societal unease. These left-behind place tend to be more sensitive for a populist and/or Eurosceptic rhetoric, causing these parties to grow in size. This political support for these parties can be expressed in distrust in and dissatisfaction with the functioning of the European Union. This, eventually should lead to a Eurosceptic voting behaviour.

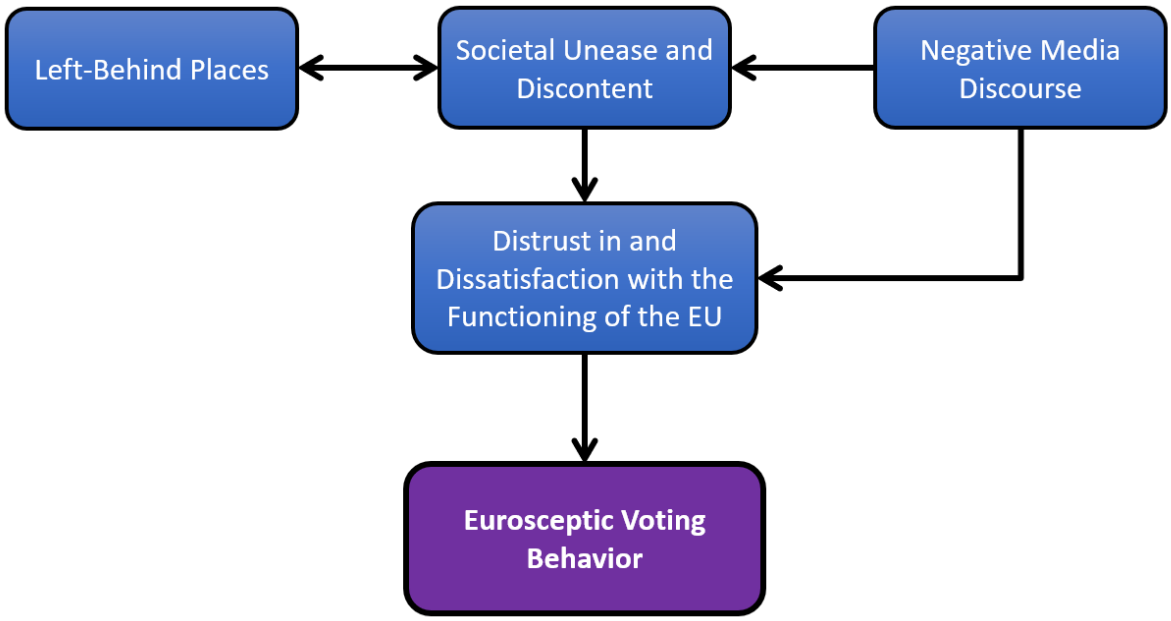


Figure 4: Conceptual model of how societal unease may lead to a Eurosceptic voting behaviour.

3.9. Hypotheses

It is to be expected that there is a relation between the level of trust in the EU and the level of satisfaction with the EU's functioning in a region on the one hand and the Eurosceptic voting behaviour on the other hand. More people will tend to vote on Eurosceptic parties when the levels of distrust and dissatisfaction are high. This relation may be mediated by variables that represent the aspects of societal unease and discontent, like the GDP per capita, the share of people at risk of poverty, the employment rate, the share of the population aged 65+ and the share of people with tertiary education level.

Chapter 4: Methodology

This section will elaborate upon the methodology adopted in this research and the reasoning behind it. The base of the research comes from the Geography of EU Discontent (Dijkstra et al., 2019). Dijkstra analysed the geography of EU discontent using Eurosceptic voting patterns from more than 63,000 electoral districts in all 28 EU member states and tested whether a wide range of factors influenced this pattern. However, as elaborated upon above, the link between populism and Euroscepticism is unclear and needs further examination on why people vote for certain parties. This research tries to link characteristics of societal unease and discontent to Euroscepticism by taking political support into account. To express this aspect in terms of variables, micro data from the Eurobarometer about trust and satisfaction has been added to the research, as well as other variables that might influence this voting pattern (see below).

4.1. Background of the Dataset

As touched upon before, this research makes use of a wide variety of variables, coming form four main sources. The first source is the Chapel Hill Expert Survey (CHES). The CHES are a series of surveys that estimate the party positioning on European integration (Chapel Hill Expert Survey, 2020). Central in these surveys are questions on the parties' general position on EU integration and their left-right political position. Based on each countries latest election (See Appendix 1. Year of Election Used per Country), this organization accumulates all votes on each type of party to show how high the EU discontent is expressed in politics. The CHES version used for this research is the 2017 Chapel Hill Expert FLASH Survey (CHES, 2017).

The second source used is the Eurobarometer. The Eurobarometer is a series of surveys about the public opinion on certain topics in all EU Member States (European Parliament, 2020). The topics touched upon by these surveys vary from attitudes towards the European Union to perceptions and expectations on certain challenges for both the European Union as the national governments. Because the Eurobarometer is a long-running exercise, its results have proven to provide detailed insights into the public opinion towards both the EU and the national government. The Eurobarometer version used for this research is the Eurobarometer from 2016 (Eurobarometer, 2016). The year used for this data 2016, as the European years of election varied between 2013 and 2018, with the median on 2016.

Third, this research made use of many variables from Eurostat. Eurostat is the main database of the European Union that has the role of processing and publishing comparable statistical information from the EU (Eurostat, 2020). Eurostat does not collect any data itself, but tries to translate data collected by the EU member states to one common statistical language. For example, it is important to make certain variables comparable that these variables are measured in the same way. This research made use of the Regional Accounts of Eurostat, which basically include the same variables as the national accounts, but then on a regional

level (Eurostat, 2020). Second, this research made use of the Eurostat Census Hub. The Census Hub is a joint effort to better arrange the results of the Population and Housing Censuses all over Europe (Eurostat, 2020). In Table 1, one can see what variables come from Eurostat.

Lastly, this research made use of the World Press Freedom Index, created by Reporters without Borders (RSF). This organization represents the freedom of expression and information and acts as consultant for, among others, the United Nations and the Council of Europe. Spread over ten countries, RSF has become one of the world's leading NGOs regarding the defence and promotion of freedom of information (Reporters Without Borders, 2020). For this research, the World Press Freedom Index of 2018 has been used; the closest version to the election years (See Appendix 1).

4.2 Variables

This research makes use of twenty variables, coming from the above mentioned sources. However, most variables were not measured on a similar scalar level. To make the variables comparable, many had to be formatted to the same scalar level. For example, the data used by Dijkstra et al. (2019) mostly contained variables on a LAU2 scalar level, while the data of the Eurobarometer was micro data with a NUTS 2 level variable. Below are all variables described and is elaborated upon the technicalities of this formatting process. The variables, the year(s), their original scalar level and their source(s) are summarized in Table 1. Appendix 3 contains the geographical picture of each variable. As the micro data from the Eurobarometer for Germany, Italy and the United Kingdom was only available on a NUTS1 level, these data have been upscaled. Although this makes it more difficult to make conclusion between countries due to the large differences in size and impact, these countries are still included in the analysis to create a broad picture. This transforming lead to a dataset of 20 variables and 211 cases over 27 countries: 33 on a NUTS1 level and 178 on a NUTS2 level. Due to practical reasons, Cyprus has been left aside. Although the United Kingdom has left the European Union per February 1, 2020, it has been included in this research, as this might provide interesting insights on the overall concept of Euroscepticism.

Table 1: Summary of all variables in the models giving the variable name, the year, the original scalar level and the source(s).

Variable Name	**Year(s)**	**Original Scalar Level**	**Source(s)**
EU Discontent Rate	2013, 2014, 2015, 2016, 2017*	Kantons, Constituencies, Municipalities, LAU1, LAU2, NUTS3*	Chapel Hill Expert Survey
Share of people distrusting the EU	2016	Micro data	Eurobarometer
Share of people distrusting the national government	2016	Micro data	Eurobarometer
Satisfaction with the EU Score	2016	Micro data	Eurobarometer
Satisfaction with the National Government Score	2016	Micro data	Eurobarometer
Future in the EU Score	2016	Micro data	Eurobarometer
GDP per Capita	2015	NUTS3	Eurostat
At-Risk-of-Poverty Rate	2011	LAU2, NUTS3*	ESPON, World Bank, Eurostat, DG REGIO
Employment Rate	2017	NUTS2	Eurostat Regional Accounts
Old-Aged Population Rate	2017	NUTS3	Eurostat
Share of people with a tertiary education level	2017	NUTS2	Eurostat
Share of population living in rural areas	2011	Kantons, Constituencies, Municipalities, LAU1, LAU2, NUTS3*	Eurostat
GDP Growth Rate	2000 – 2014	NUTS3	Eurostat Regional Accounts
Employment Growth Rate	2000 – 2014	NUTS3	Eurostat Regional Accounts
Net Migration Rate	2000 – 2016	NUTS3	Eurostat
Population Growth Rate	2000 – 2016	NUTS3	Eurostat
Share of Non-EU Citizens	2011	NUTS3	Eurostat Census Hub
Life Satisfaction Score	2016	Micro data	Eurobarometer
Freedom of Press Index	2018	NUTS0	Reporters Without Borders
Knowledge of the EU	2016	Micro data	Eurobarometer

** Year(s) and/or original scalar level may vary per country*

4.1.1. EU Discontent Rate

The EU Discontent Rate represents the share of votes for parties (strongly) opposing European integration in the country's latest election, as % of total number of valid votes per NUTS 2 level. By dividing the total number of votes by the number of votes for parties (strongly) opposing European integration, Dijkstra et al. (2019) created the EU Discontent Rate. For this research the following equation has been used to transform the data from its original scalar level to an analogous scalar level:

$$EU\ Discontent\ Rate_R = \frac{\sum_r (Discontent\ Rate\ \times Total\ Votes)}{Total\ Votes_R}$$

4.1.2. Share of People Distrusting the EU

The Share of People Distrusting the EU is calculated from micro data of the Eurobarometer (2016). The respondents were asked to state whether they trust the EU or not. The number of people stating that they do not trust the EU per NUTS2 region is taken as a share of the total number of respondents per NUTS2 region (R), giving the following equation:

$$Share\ of\ People\ Distrusting\ the\ EU_R = \frac{Respondents\ Distrusting\ the\ EU_R}{Total\ Number\ of\ Respondents_R}$$

4.1.3. Share of People Distrusting their National Government

The Share of People Distrusting their national government is calculated from micro data of the Eurobarometer as well (Eurobarometer, 2016). Like the trust variable, the respondents were asked to state whether they trust their national government or not. The number of people stating that they do not trust their national government per NUTS2 region is taken as a share of the total number of respondents per NUTS2 region (R), giving the following equation:

$$Share\ of\ People\ Distrusting\ their\ national\ government_R =$$

$$\frac{Respondents\ Distrusting\ their\ national\ government_R}{Total\ Number\ of\ Respondents_R}$$

4.1.4. Satisfaction with the EU Score

The Satisfaction with the EU Score indicates how satisfied people are with the democratic functioning of the EU. The data is micro data from the Eurobarometer (2016) in which respondents could rate their satisfaction from 1 very satisfied to 4 very unsatisfied. These

values are added up per NUTS2 region and divided by the total number of respondents of that specific NUTS2 region. The equation is as follows:

$$Satisfaction\ with\ EU\ Score_R = \frac{\sum_R^i Satisfaction\ Value}{n_R}$$

4.1.5. Satisfaction with the National Government Score

The satisfaction with the national government score indicates whether a region is satisfied with the democratic functioning of their national government. Like the Satisfaction with the EU Score, the data consist of micro data from the Eurobarometer (2016) in which respondents could rate their satisfaction from 1 very satisfied to 4 very unsatisfied. These values are added up per NUTS2 region and divided by the total number of respondents of that specific NUTS2 region. Thus, a low value indicates high satisfaction and a high value equals low satisfaction. The equation is as follows:

$$Satisfaction\ with\ the\ National\ Government_R = \frac{\sum_R^i Satisfaction\ Value}{n_R}$$

4.1.6. Future in the EU Score

The Future in the EU Score indicates whether a region thinks their country is better off outside the EU. The micro data comes from the Eurobarometer (2016). A score of 1 indicates that the respondent totally agrees and a value of 4 indicates that the respondent totally disagrees. These values are summed up per NUTS2 region and divided by the total number of respondent of that NUTS2 region. Thus, a low score entails that the region thinks that their country is better off outside the EU, and a high score equals that the region thinks their country is better off by staying in the EU. The equation is as follows:

$$Future\ in\ the\ EU\ Score = \frac{\sum_R^i Future\ in\ the\ EU\ Value}{n_R}$$

4.1.7. GDP per Capita

The GDP per Capita in PPS at a NUTS2 level in 2015 comes from Eurostat (2015). The variable is expressed as index of the EU-28 average. The variable was transformed from NUTS3 to NUTS2 by taking the average of all NUTS3 regions (r) that together form a NUTS2 region (R), giving the following equation:

$$GDP\ per\ Capita_R = \frac{\sum_r GDP\ per\ Capita}{n_r}$$

4.1.8. At-Risk-Of-Poverty Rate

The At-Risk-of-Poverty Rate is the estimate of share of inhabitants (in %) at risk of poverty at (Eurostat, 2011). The data needed to be transformed to a higher scalar level, as the original level was NUTS3. The total population of a NUTS3 region was multiplied by At-Risk-Of-Poverty rate of the NUTS3 levels. This number was added up per NUTS2 region and divided by the total population per specific NUTS2 region, creating the At-Risk-of-Poverty Rate per NUTS2 region. The following equation has been used:

$$At\ Risk\ of\ Poverty\ Rate_R = \frac{\sum_r At\ Risk\ of\ Poverty\ Rate\ \times Total\ Population)}{Total\ Population_R}$$

4.1.9. Employment Rate

The employment rate shows the share of the age group 20 to 64 that was employed in 2017 at NUTS 2 level. This variable did not have to be transformed, as this already was on a NUTS2 level. The data comes from the Eurostat (2017).

4.1.10. Old-aged Population Rate

The old-aged population rate equals the share of the total population that was 65 year and older in 2017. The data comes from Eurostat (2017) and originally consisted on a NUTS3 level. To transform this variable, the total population of each NUTS 3 region has been multiplied by the old-aged population rate of the NUTS3 region to get the absolute number of people aged 65 and older. These absolute numbers have been summed up per NUTS2 region and then divided by the total population of the NUTS2 region. The equation is as follows:

$$Share\ \ population\ aged\ 65 +_R = \frac{\sum_r Share\ Population\ 65 + \times\ Total\ Population)}{Total\ Population_R}$$

4.1.11. Educated Population Rate

The Educated Population Rate shows the share of the age group 25 to 64 with a tertiary education level in 2017. The data comes from Eurostat (2017) and originally was on a NUTS2 scalar level already.

4.1.12. Share of Rural Population

The share of Rural Population shows the share of the total population that lives in rural areas as a percentage of the total population in 2011. The data comes from GEOSTAT (2011) and originally was on a NUTS3 scalar level. To transform it to NUTS2, the total population of a

NUTS3 area was multiplied by the share of people living in rural areas. These absolute outcomes were added up per NUTS2 areas and divided by the total number of people per NUTS2 area, forming the Share or Rural Population:

$$\text{Share of Rural Population}_R = \frac{\sum_r \text{Share of Rural Population} \times Total\ Population)}{Total\ Population_R}$$

4.1.13. GDP/Cap Growth Rate

The Growth of the GDP per Capita rate comes from Eurostat and depicts the annual average growth of GDP per capita per NUTS 2 region between 2000 and 2014. The data originally was on a NUTS 2 scalar level, thus needed no transformations.

4.1.14. Employment growth rate

The Employment Growth Rate comes from Eurostat and depicts the average annual employment growth per NUTS2 region between 2000 and 2014. Like the GDP/Cap growth rate, the data originally was on a NUTS2 level, thus needed no transformation.

4.1.15. Net Migration Rate

The Net Migration Rate is the average annual number of migrants as a share of the total population between the time period 2000 to 2016. The data comes from Eurostat and originally was on a NUTS 3 scalar level. To transform the data, the total population of a NUTS3 region as multiplied by the Net Migration Rate of the NUTS3 region. These absolute numbers were added per NUTS2 region and the total was divided by the total population of the NUTS2 region, giving the following equation:

$$\text{Net Migration Rate}_R = \frac{\sum_r \text{Net Migration Rate} \times Total\ Population)}{Total\ Population_R}$$

4.1.16. Population Growth Rate

The population growth rate is the annual average growth of population per NUTS2 region between 2000 and 2015. The data comes from Eurostat and originally was on a NUTS2 scalar level already, thus needed no transformation.

4.1.17. Share of Non-EU Citizens

Share of non-EU citizens as a percentage of the total population in 2011 (Eurostat, 2011). To calculate this rate, the absolute number is calculated using the share per NUTS3 or LAU2

region and the total population and added up per NUTS 2. Then this number is divided by the total population per NUTS2 region.

$$\text{Share of Non EU Citizens}_R = \frac{\sum_r \text{Share of Non EU Citizens} \times Total\ Population)}{Total\ Population_R}$$

4.1.18. Life Satisfaction Score

A score indicating the life satisfaction per NUTS 2 region (Eurobarometer, 2016). The data is micro data from the Eurobarometer. The score is calculated by summing all values of respondents per NUTS2 region and dividing it by the total number of valid respondents per region. A life satisfaction value of 1 indicates that a respondent is very satisfied and a value of 4 indicates that the respondent is not satisfied at all.

$$Life\ Satisfaction\ Score_R = \frac{\sum_R^i Life\ Satisfaction\ Value}{n_R}$$

4.1.19. World Press Freedom Index

An index indicating the level of freedom of the media per country in 2018. The index comes from Reporters Without Borders (RWF) and is based on a questionnaire conducted in 180 countries. This qualitative questionnaire is backed with quantitative data on abuses and acts of violence against journalists. After combining this, RWF created the annual World Press Freedom Index.

4.1.20. Knowledge of the EU Score

A score indicating whether a region knows how the EU works in practice. The respondents were given three statements on which they could answer true or false. The frist statement was: “The EU currently consists of 28 Member States.”. The second statement was: “The members of the European Parliament are directly elected by the citizens of each Member State.”. The last statement was: “Switzerland is a Member State of the EU.”. The score is calculated by adding up all correct answers per NUTS2 region and divide it by the total amount of respondents per NUTS2 region. A high score indicates that the region has good knowledge of how the EU works in practice.

$$Knowlegde\ of\ the\ EU\ Score_R = \frac{\sum_R^i Number\ of\ Correct\ Answers}{n_R}$$

4.2. Data Analysis

This research consists out of two parts. The first part is a multiple linear regression analysis that regresses a large group of variables on the EU Discontent Rate. The second part is a mediation analysis in which the underlying mechanism of the relation between distrust in the EU and satisfaction with the EU on the one hand and the EU Discontent Rate on the other hand is explored.

4.2.1. Multiple Linear Regression

By using Eurosceptic voting patterns to analyze EU discontent, Dijkstra et al. (2019) skipped the step in which these factors are linked to a political voting pattern. No variables have been taken into account that represent the motives behind the voters' voice. To take this link into account, this research tries to connect the Eurosceptical voting pattern to measures of political trust and political satisfaction conducted by the Eurobarometer (2016). Furthermore, several other variables have been included that possibly influence societal unease, populism and Euroscepticism, including Life Satisfaction, Freedom of the Press and Knowledge of the EU. Thus, in order to investigate what factors drive a Eurosceptic voting pattern across the EU countries on a NUTS 2 (NUTS 1 for Germany, Italy and the UK) scalar level, the model of Dijkstra has been elaborated and simplified to the following model: a multiple linear regression taking country fixed effects into account with **EU Discontent Rate** as dependent variable and the following independent variables:

- *Share of Population Distrusting EU*
- *Share of the Population Distrusting the National Government*
- *Satisfaction with the Functioning of the EU*
- *Satisfaction with the Functioning of the National Government*
- *Future in the EU Score*
- *GDP per Capita*
- *At-Risk-Of-Poverty Rate*
- *Employment Rate*
- *Old-Aged Population*
- *Educated Population*
- *Rural Population*
- *GDP per Capita Growth Rate*
- *Employment Growth Rate*
- *Net Migration Rate*
- *Population Growth Rate*
- *Share of Non-EU Citizens*
- *Life Satisfaction Score*
- *World Press Freedom Index*
- *Knowledge of the EU Score*

The equations looks as follows:

$$Discontent_{(2013-2018)} = \alpha + \beta X1_{(2000-2016)} + \gamma X2_{(2016)} + \delta X3_{(2016)} + V_c + \varepsilon$$

In this model, $Discontent_{(2013\text{-}2018)}$ denotes the EU Discontent Rate based on national elections between 2013 and 2018. The constant is depicted by α. $X1_{(2000\text{-}2016)}$ are the regional socio-economic characteristics and trends between 2000 and 2016 used in the report by Dijkstra et al. (2019). X2 depicts the trust and satisfaction variables of both the European Union as the national government. These variables are essential for this research, as they act as the connection between the socio-economic characteristics and trends on the one hand and the discontent rate on the other hand. X3 is a group of other variables that might influence the EU Discontent Rate according to the literature: the Future in the EU Score, Life Satisfaction, World Press Freedom Index and the Knowledge of the EU Score. V_c depicts the country-fixed effects in the model, while ε includes the error term.

4.2.2. Mediation Analysis

The second part of the research is a mediation analysis and consists out of two parts. The first part will focus on the relation between the Trust in the EU Score and the EU Discontent Rate. The second part on the relation between Satisfaction with the EU Score and the EU Discontent rate. The Trust and Satisfaction variables have been selected to gain deeper insights in the motivation behind political votes. The variables that are tested to be mediating variables are GDP per Capita, At-Risk-Of-Poverty Rate, Employment Rate, Old-Aged Population Rate and the Share of tertiary educated people. These variables have been selected due to their significant impact on the EU Discontent Rate on a lower scalar level, according to Dijkstra et al. (2019). For both parts, 31 models have been created covering all possible combinations of the aforementioned mediating variables (See Appendix 2. All possible models in both mediation analyses).

The idea of a mediation analysis is to find the underlying mechanism between the dependent and independent variable, indicated by the dashed arrows in Figure 5 Thus, in this case, the underlying mechanism of the relation between distrust and dissatisfaction on the one hand, and the Eurosceptic voting behaviour on the other hand. What regional circumstances have the consequences that distrust in or dissatisfaction with the European Union is translated to EU discontent? The Akaike Information Criterion (Akaike, 1977) and the Bayesian Information Criterion (Schwartz et al., 1978) are used to determine what model is best and thus, what variables mediate this relationship. The AIC is calculated by the following equation:

$$AIC = n \times LOG\left(\frac{SSE}{n}\right) + 2(k+1)$$

The BIC is calculated by the following equation:

$$BIC = n \times LOG\left(\frac{SSE}{n}\right) + (k+1) \times LOG(n)$$

In both equations is n the total number of cases, SSE is the Sum of Squared Errors, or Sum of Squared Residuals, and k is the total number of parameters taken into account. The difference between both is that the BIC has a different penalty for the number of parameters in the model. However, the AIC and the BIC are closely related to each other and both estimate the relative quality of a statistical model. What the criteria do, is estimating how much information is lost by adding a new variable into a model. This is the model in which the AIC and the BIC are the lowest.

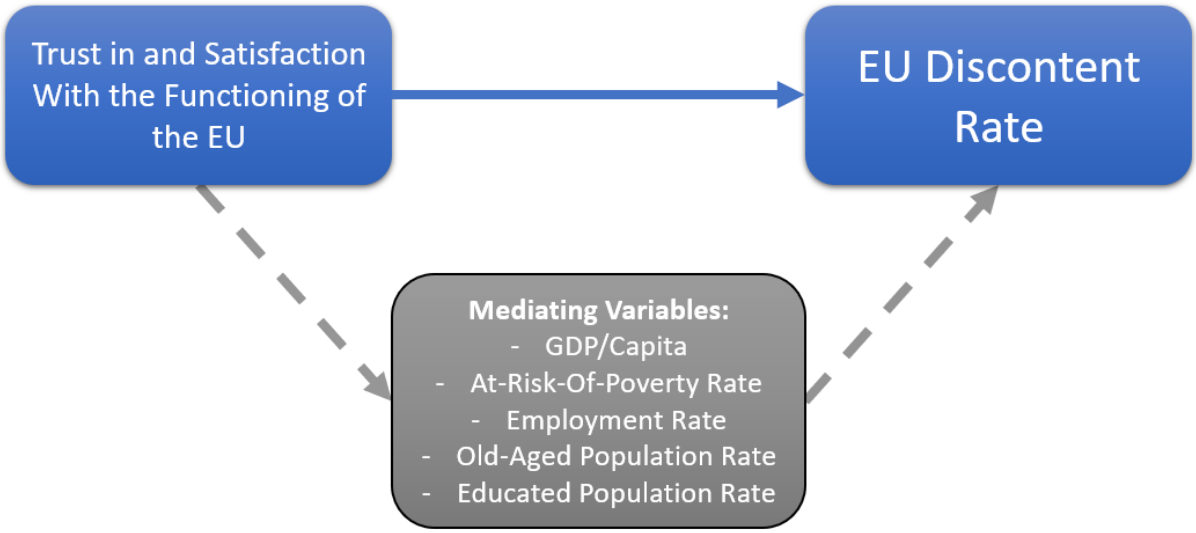


Figure 5: Data analysis scheme of the mediation analyses.

Chapter 5: Results

5.1. Multiple Linear Regression

After transforming the data to an analogous scalar level, the geographical distribution of the EU Discontent Rate (Figure 6) shows that there are large differences between countries. Austria, France and Denmark tend to score relatively high on the EU Discontent Rate. Eastern European countries, like the Baltic States, Poland and Romania tend to vote less to none on Eurosceptic parties. Belgium, Ireland and Spain also score relatively low. Germany and Italy show large differences within the country, in which the historic divide between East and West-Germany is visible. The economic divide between North and South Italy is also clearly present.

5.1.1. Significant Results

With a 95% confidence interval, the regression shows that multiple variables are significant, in Table 2 indicated with *. In a 90% confidence interval one more variable is significant, in Table 2 indicated with **. First, *Satisfaction with the Functioning of the EU* has a positive influence on the EU Discontent Rate. With a significance of 0.022. For every increase of this satisfaction score, the EU Discontent rate will increase with 0.31, entailing that people vote more for Eurosceptic parties when they are less satisfied with the functioning of the EU. Second, the GDP per Capita appears to have a negative influence on the EU Discontent Rate ($p = 0.025$). Wealthier regions tend to vote less Eurosceptic than less wealthy regions, confirming the findings of Dijkstra et al. (2019). Furthermore, there is a negative relation between the employment rate and the Eu Discontent Rate as well ($p = 0.030$). When the employment rate in a region is high, less people tend to vote on Eurosceptic parties. Next, life Satisfaction is positively correlated with the EU Discontent Rate ($p = 0.048$). Less happy regions tend to vote less Eurosceptic than happy regions. The Freedom of press in a country plays an important role as well. With a significance of 0.000, the variable influences the EU Discontent Rate significantly. For each increase in the freedom of the press, the share of people voting for Eurosceptic parties decreases with 0.024. Lastly, the share of non-EU citizens is correlated with the EU Discontent Rate ($p = 0.012$). Regions in which the share of non-EU citizens of the total population is lower tend to vote less Eurosceptic.

Contrary to the findings of Dijkstra et al. (2019), there is no relation between the EU Discontent Rate on the one hand, and the education level, economic decline or age on the other hand. The difference in outcomes may be due to the fact that different scalar levels have been used. As the findings of Dijkstra were mostly based on a LAU2 level and the data used for this research on a larger scalar level, some statistical precision might be lost during the transforming process. On the other hand, Dijkstra used variables from many different scalar levels, resulting in many similar variables for different LAU2 regions.

Table 2: Results of the multiple linear regression analysis.

EU Discontent Rate	R	Strength Correlation	R2	Intercept	Significance
Overall Model	0.962	Very Strong	0.925	0.365	0.000
Share of Population Distrusting EU				0.000	0.868
Share of Population Distrusting National Government				0.003	0.090**
Satisfaction with the EU Score				0.031	0.022*
Satisfaction with the National Government Score				-0.002	0.815
Future in the EU Score				-0.017	0.102
GDP/Capita				-0.001	0.025*
At-Risk-of-Poverty Rate				0.015	0.831
Employment Rate				-0.226	0.030*
Old-Age Population Rate				0.322	0.243
Educated Population Rate				-0.018	0.798
Share of Rural Population				-0.010	0.698
GDP/Capita Growth Rate				0.001	0.879
Employment Growth Rate				0.004	0.513
Net Migration Rate				0.000	0.944
Population Growth Rate				-0.002	0.591
Share of Non-EU Citizens				0.004	0.012*
Life Satisfaction Score				0.034	0.048*
Freedom of Press Index				0.024	0.000*
Knowledge of the EU				-0.001	0.374
* Significant at a 95% confidence level ** Significant at a 90% confidence level					

Lastly, and potentially the most interesting outcome, is that, on a significance level of 90%, *Distrust in the National Government* is positively correlated with the EU Discontent Rate ($p = 0.090$). This entails that the larger the share of people distrusting the national government, the larger the share of people voting for Eurosceptical parties becomes. Although national governance is strongly related and intertwined with governance of the European Union, this might suggest that the a high share of Eurosceptical votes can indeed be contributed to national populism, rather than Euroscepticism. This argument can be substantiated by the fact that other significant outcomes, as GDP per Capita, the employment Rate, life satisfaction and share of non-EU citizens are characteristics of populist voting behaviour (Coyle & Ford, 2017; McClay, 2017).

5.1.2. Geographical Distribution

Page 35 and 36 show eight maps (Figure 6 – 13) that serve to compare the geographical distribution of the independent variable and all significant variables on both a 90% and 95% confidence levels. It is visible that the EU-discontent regions in France, Austria and Germany are also unsatisfied with the functioning of the EU, while the opposite takes place in Eastern European countries. France and Greece show relatively low unemployment rates combined with high EU Discontent Rates. However, in other countries with a high EU Discontent Score, employment rates are relatively high. Next, wealthier regions in Italy and Austria show also high rates of EU Discontent, while less wealthy regions in Eastern Europe and Spain show lower rates. When looking at life satisfaction, it shows that happier regions, like countries in Scandinavia, Austria and the Netherlands tend to have a higher share of votes for Eurosceptic parties than less happy countries, like Bulgaria, Romania and the Baltic States. Figure X shows that overall countries in Europe relatively tend to distrust their national government. However, differences within countries are relatively large as well, especially in Central Europe.

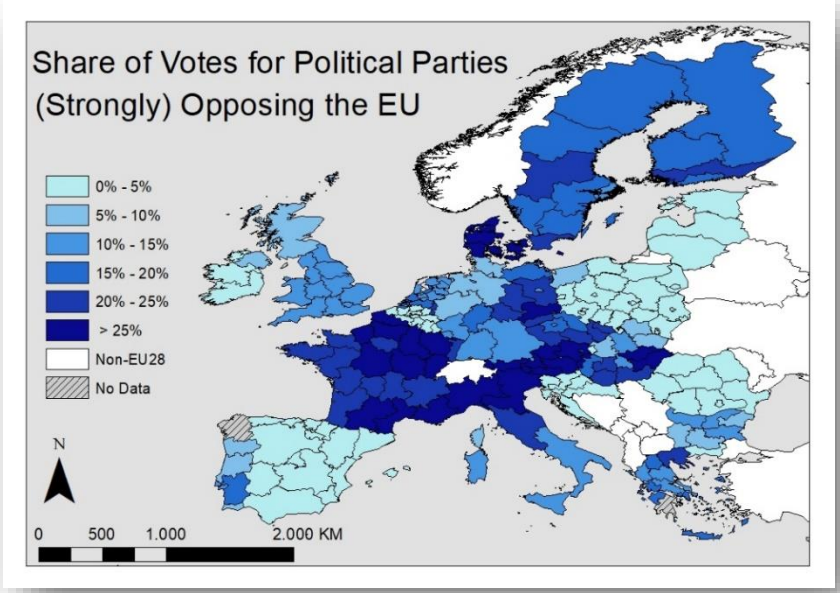


Figure 6: EU Discontent Rate. The share of votes for political parties (strongly) opposing the EU.

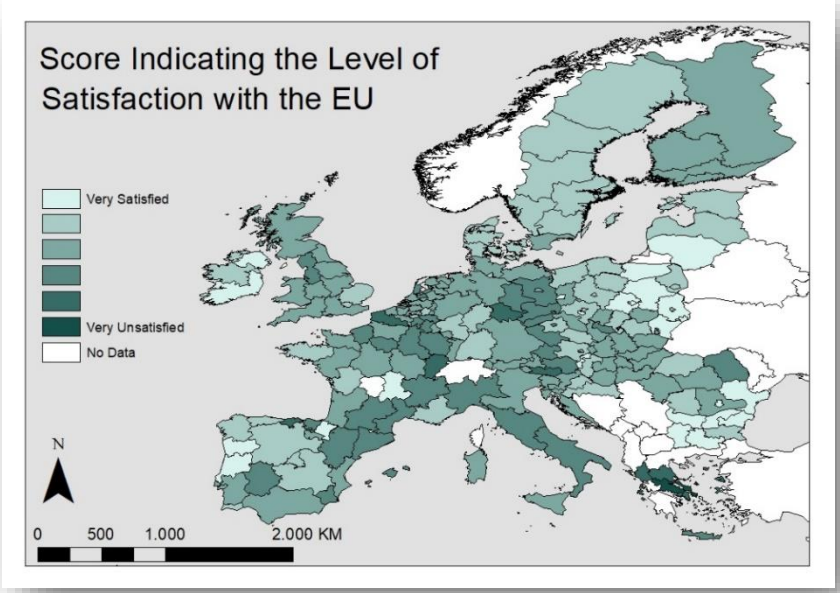


Figure 7: Satisfaction with the EU Score. A score indicating whether a region is satisfied with the democratic functioning of the EU.

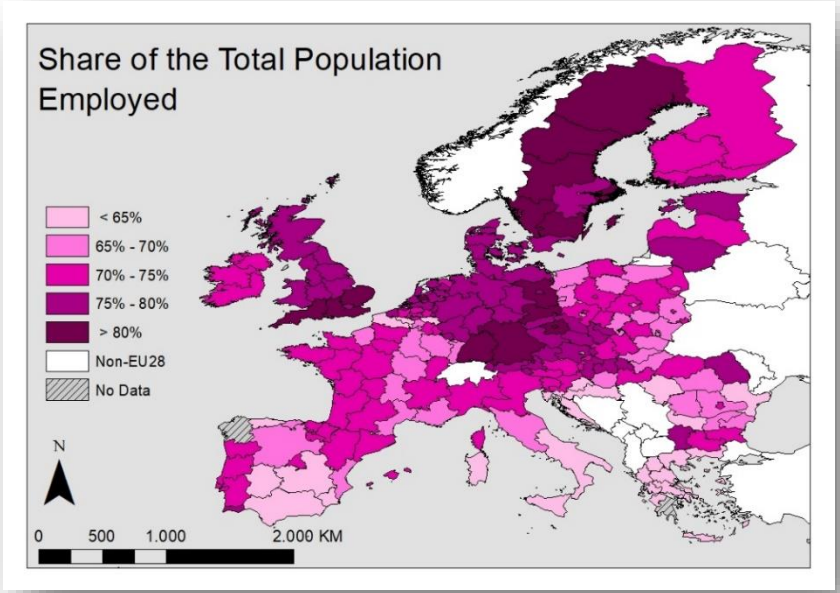


Figure 8: Employment Rate. The share of the total population that is employed.

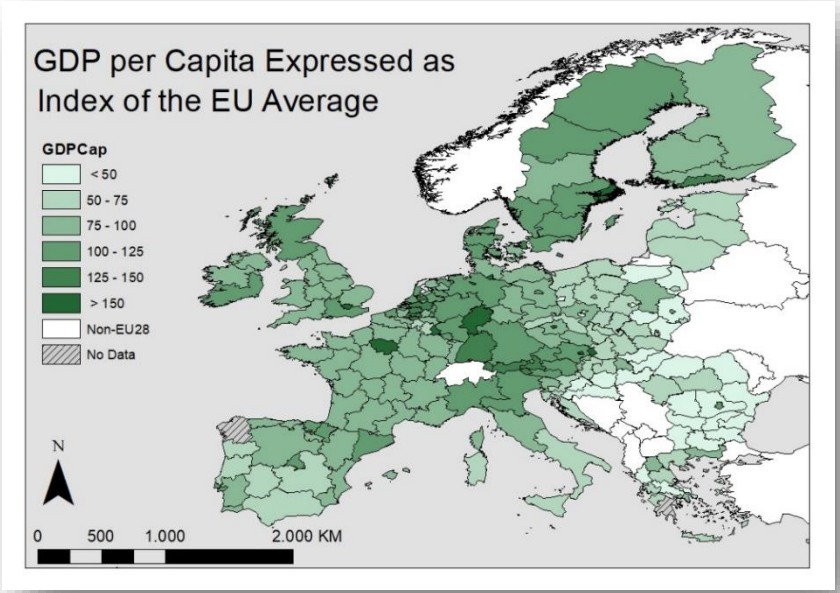


Figure 9: GDP/Capita. The GDP per Capita in PPS in 2015, expressed as index of the EU-28 average.

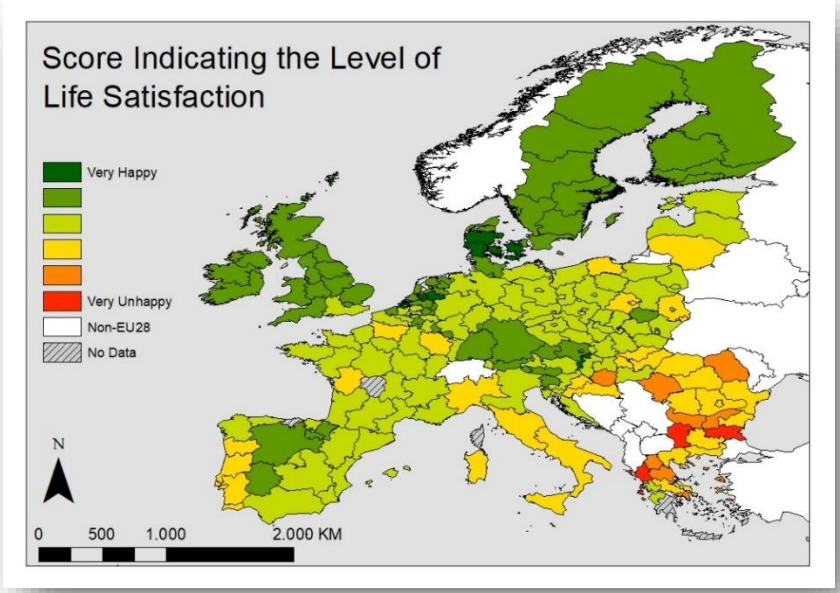


Figure 10: EU Discontent Rate. The share of votes for political parties (strongly) opposing the EU.

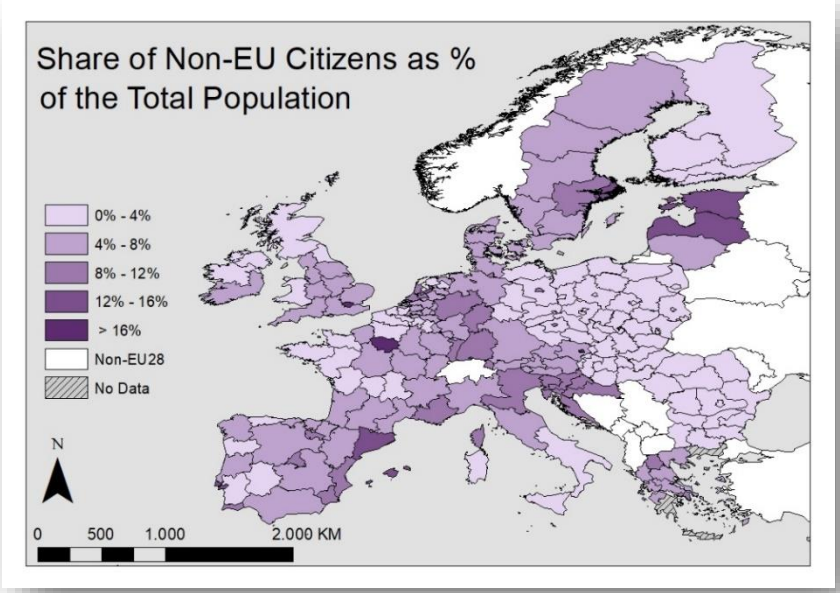


Figure 11: Share of Non-EU Citizens. The share of Non-EU citizens as percentage of the total population per NUTS2 region.

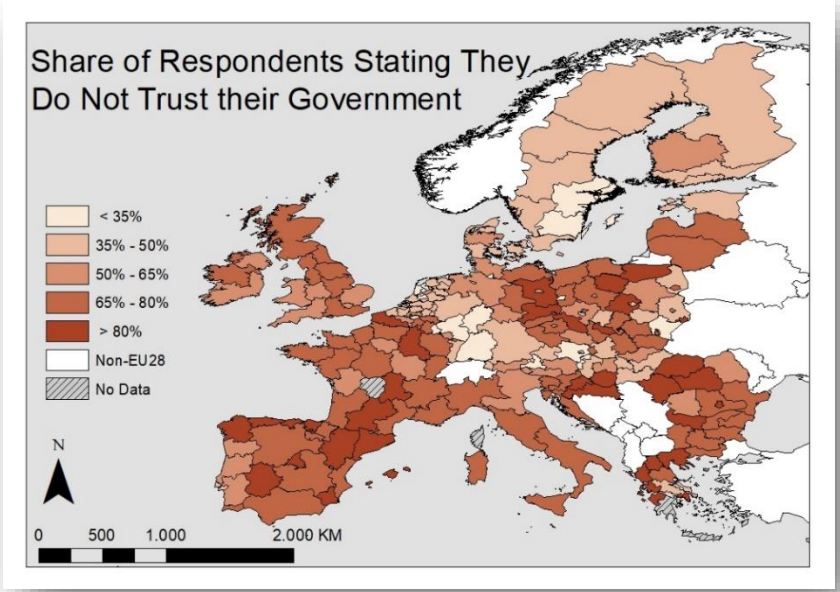


Figure 12: Trust in the national government. Share of respondents stating they do not trust their national government.

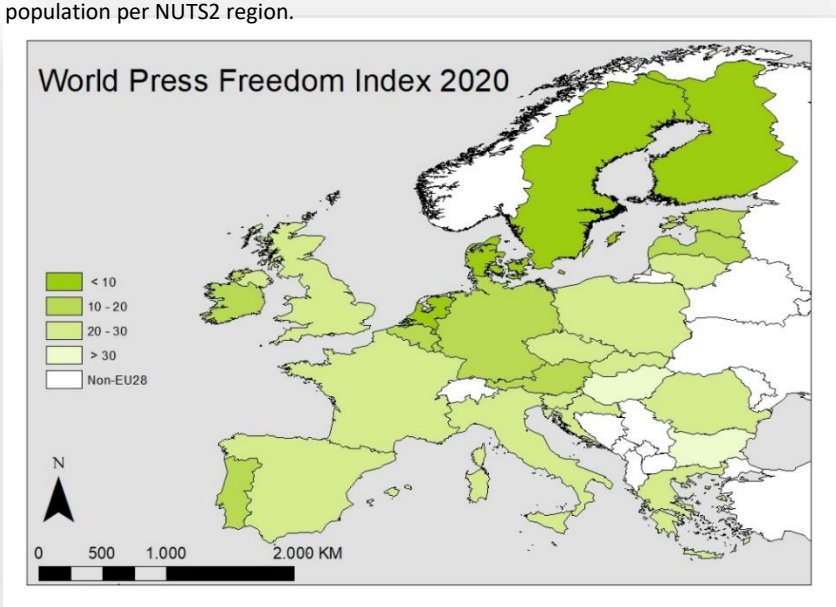


Figure 13: World Press Freedom Index 2020

5.1.3. Differences Between Countries

To examine the differences in the EU Discontent Rate between countries, the multiple linear regression makes use of country-fixed effects. This method is preferred over a random effects model as the model works with adjacent spatial units in an unbroken study area; namely the European Union (Halleck Vega et al., 2014). This method included a dummy country to test for country-specific heterogeneity. Four randomly picked dummy countries have been taken for comparison: Austria, Hungary, Greece and The Netherlands. The results have been summarized in Table 3 and are visible in the Figures 14 – 17.

The first dummy country, Austria, appears to score relatively high on the EU Discontent Rate. All other countries, save for France and Denmark, appear to be significantly less EU Discontent. France is on an equal level, while Denmark shows higher levels of EU Discontent. Greece, the second dummy country shows mid-to low-ranged levels of discontent. Eastern European countries, like the Baltic States and Romania, as well as Spain show significantly lower rates of EU discontent. Greece's levels are comparable with countries as Germany and the United Kingdom, but significantly lower than the aforementioned Austria and Denmark. The Netherlands and Hungary, the third and fourth dummy countries, show relatively comparable levels of EU discontent, although the levels in Hungary appear to be slightly closer to France and Austria. The levels in the Netherlands are more comparable with Germany.

From these results, one can conclude that Denmark is the frontrunner regarding EU Discontent, followed closely by Austria and France. Hungary, the Netherlands, Germany, the United Kingdom, Sweden, Finland, Czech Republic and Italy form the mid-range, just before Greece, Belgium, Portugal, Poland, Slovakia and Ireland. Countries like the Baltic States, Romania, Bulgaria, Slovenia, Croatia and Spain close the ranking, where EU Discontent is barely to not present.

Table 3: Results of the country-fixed effects per dummy country

Dummy Country / Country	Austria	Greece	Hungary	The Netherlands
Belgium	0.000*	0.149	0.000*	0.000*
Bulgaria	0.000*	0.292	0.000*	0.001*
Czech Republic	0.000*	0.007**	0.318	0.695
Germany	0.000*	0.137	0.007*	0.078
Denmark	0.028**	0.000**	0.000**	0.000**
Estonia	0.000*	0.009*	0.000*	0.000*
Greece	0.000*	X	0.002*	0.013*
Spain	0.000*	0.004*	0.000*	0.000*
Finland	0.003*	0.000**	0.784	0.076
France	0.179	0.000**	0.073	0.000**
Croatia	0.000*	0.001*	0.000*	0.000*
Hungary	0.001*	0.002**	X	0.286
Ireland	0.000*	0.632	0.027*	0.042*
Italy	0.001*	0.000**	0.731	0.504
Lithuania	0.000*	0.026*	0.000*	0.000*
Luxembourg	0.000*	0.977	0.009*	0.032*
Latvia	0.000*	0.007*	0.000*	0.000*
Malta	0.000*	0.255	0.000*	0.000*
The Netherlands	0.000*	0.013**	0.286	X
Poland	0.000*	0.318	0.000*	0.000*
Portugal	0.000*	0.709	0.000*	0.000*
Romania	0.000*	0.008*	0.000*	0.000*
Sweden	0.000*	0.001**	0.982	0.110
Slovenia	0.000*	0.003*	0.000*	0.000*
Slovakia	0.000*	0.810	0.000*	0.018*
United Kingdom	0.000*	0.398	0.004*	0.005*
Austria	X	0.000**	0.001**	0.000**
	* Indicates that the country scores significantly lower on the EU Discontent Rate . ** Indicates that the country scores significantly higher on the EU Discontent Rate.			

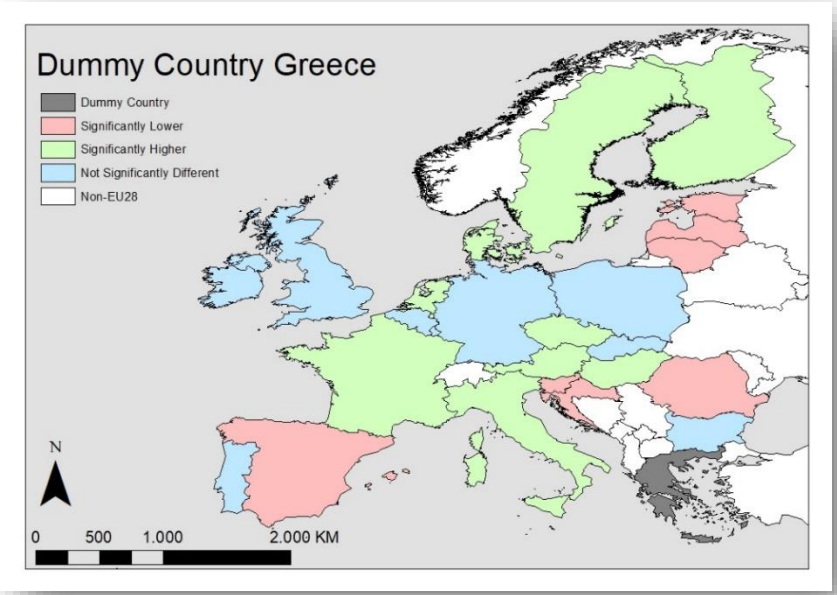


Figure 14: Dummy Country Greece

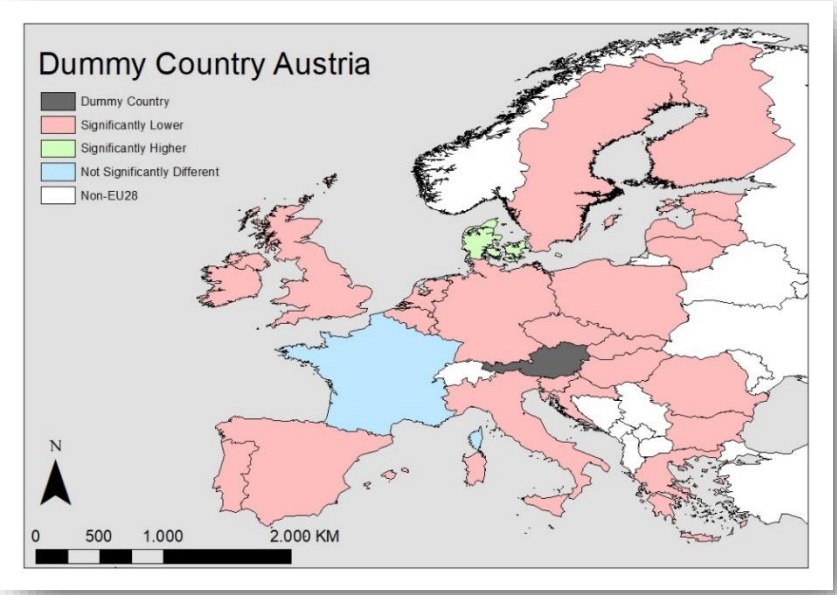


Figure 15: Dummy Country Austria

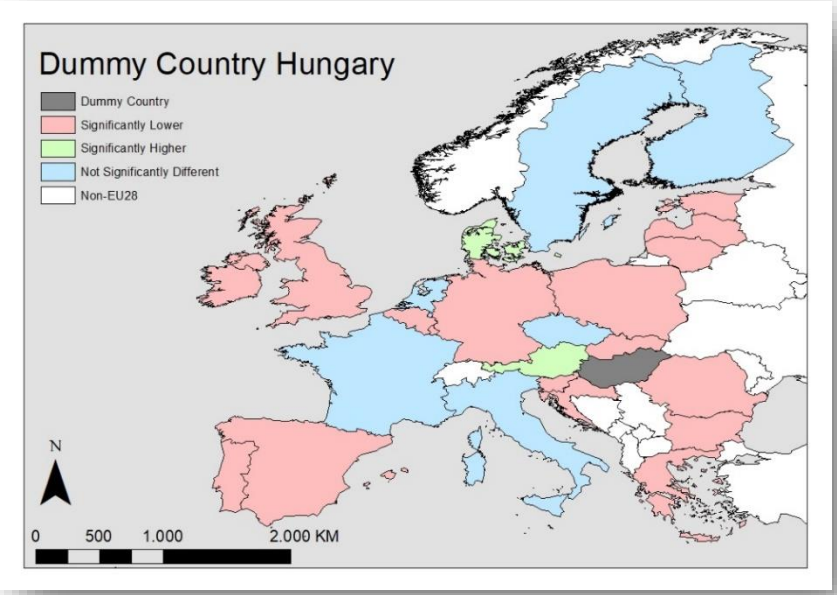


Figure 16: Dummy Country Hungary

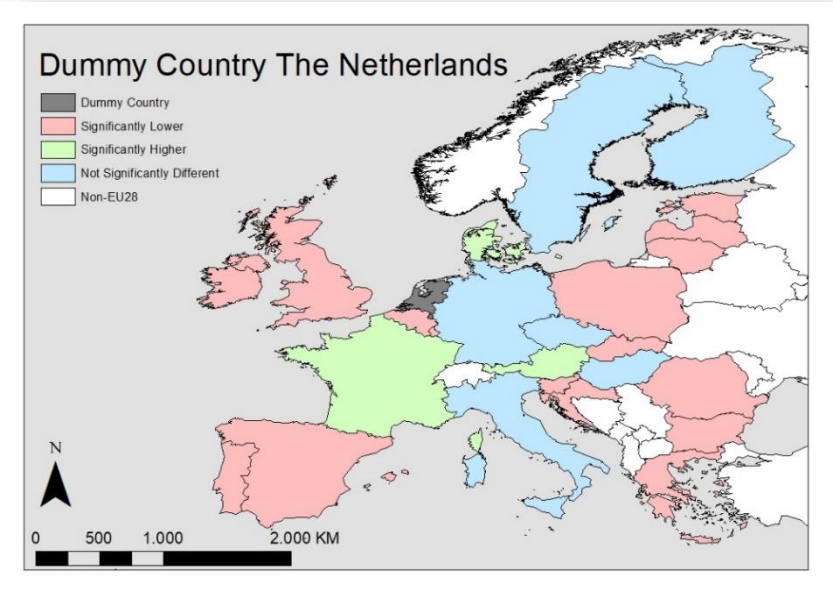


Figure 17: Dummy Country the Netherlands.

5.2. Mediation Analysis

As explained in the above, the mediation analysis consists of two parts. The first part, Part A, will focus on the relation between the Trust in the EU Score and the EU Discontent Rate. The second part, Part B, will focus on the relation between Satisfaction with the EU Score and the EU Discontent rate. Both trust in and satisfaction with are selected as these variables depict the notion of political support, in this case in the EU, and the motivation of a voters vote (Christensen and Laegrid 2005; Ellinas & Lamprianou, 2014). The mediating variables are summed in Table 4 together with the dependent and independent variable. Appendix 2 shows all the models that have been created for both part A and part B.

Table 4: Variables in the mediation analyses

	Part A	Part B
Dependent Variable	EU Discontent Rate	EU Discontent Rate
Independent variable	Share of the Population Distrusting the EU	Satisfaction with the Functioning of the EU Score
Mediating variables	GDP per Capita	GDP per Capita
	At-Risk-Of-Poverty Rate	At-Risk-Of-Poverty Rate
	Unemployment Rate*	Unemployment Rate*
	Old-Aged Population Rate	Old-Aged Population Rate
	Share of Tertiary Educated People	Share of Tertiary Educated People

* Note that instead of using the employment rates like in the multiple linear regression, the mediation analysis used the Unemployment rates to make it easier to draw conclusions.

5.2.1. Part A: Trust in the EU

Out of the 31 models created for the mediation analysis, two models show considerably lower scores on the AIC and the BIC: namely model 2 and model 3 (See Table 5). These lower AIC and BIC scores indicate that in these models, the least information is lost after adding a new variable. These models include the At-Risk-Of-Poverty Rate (AIC = 572.566; BIC = 573.416) and the Unemployment Rate respectively (AIC = 572.566; BIC = 573.416). Both variables do not have any significant relation with the dependent variable on their own, but they do have a positive mediating influence on the relation between the EU Discontent Rate and the share of people distrusting the EU. Furthermore, the model including both mediating variables, model 10 also shows low scores on the AIC and the BIC (AIC = 574.954; BIC = 576.088). Thus, in regions where the unemployment rate is high and the At-Risk-Of-Poverty Rate is high, a distrust in the EU is translated to a Eurosceptic voting behaviour.

Model	Significance	R^2	Significance Distrust	Significance GDP	Significance Poverty	Significance Unemployment	Significance Old-Aged	Significance Education	AIC	BIC
A1	0.000	0.895	0.005	0.003	-	-	-	-	577.355	578.205
A2	**0.000**	**0.889**	**0.000**	**-**	**0.846**	**-**	**-**	**-**	**572.566**	**573.416**
A3	**0.000**	**0.889**	**0.000**	**-**	**-**	**0.884**	**-**	**-**	**572.566**	**573.416**
A4	0.000	0.892	0.002	-	-	-	0.045	0.00	574.926	575.776
A5	0.000	0.892	0.003	-	-	-	-	0.023	575.326	576.176
A6	0.000	0.895	0.005	0.002	0.424	-	-	-	577.355	578.205
A7	0.000	0.896	0.005	0.001	-	0.209	-	-	580.180	581.313
A8	0.000	0.895	0.008	0.017	-	-	0.308	-	579.766	580.900
A9	0.000	0.895	0.006	0.058	-	-	-	0.780	579.355	580.488
A10	0.000	0.889	0.000	-	0.684	0.700	-	-	574.954	576.088
A11	0.000	0.892	0.002	-	0.826	-	0.045	-	576.926	578.059
A12	0.000	0.893	0.003	-	0.475	-	-	0.018	577.728	578.861
A13	0.000	0.892	0.002	-	-	0.979	0.046	-	576.926	578.059
A14	0.000	0.893	0.003	-	-	0.248	-	0.011	578.131	579.265
A15	0.000	0.894	0.007	-	-	-	0.115	0.057	578.537	579.670
A16	0.000	0.896	0.005	0.002	0.983	0.334	-	-	582.180	583.597
A17	0.000	0.896	0.008	0.014	0.511	-	0.362	-	581.766	583.183
A18	0.000	0.985	0.007	0.050	0.378	-	-	0.64	581.766	583.183
A19	0.000	0.890	0.007	0.009	-	0.288	0.411	-	582.180	583.597
A20	0.000	0.896	0.006	0.044	-	0.175	-	0.556	582.180	583.597
A21	0.000	0.896	0.009	0.141	-	-	0.298	0.722	581.766	583.183
A22	0.000	0.892	0.002	-	0.743	0.806	0.048	-	578.926	580.342
A23	0.000	0.893	0.003	-	0.981	0.364	-	0.012	580.131	581.548
A24	0.000	0.894	0.007	-	0.575	-	0.131	0.049	580.945	582.361
A25	0.000	0.895	0.006	-	-	0.359	0.159	0.035	580.945	582.361
A26	0.000	0.896	0.007	0.010	0.977	0.405	0.442	-	584.180	585.880
A27	0.000	0.896	0.006	0.044	0.972	0.304	-	0.557	584.180	585.880
A28	0.000	0.896	0.010	0.121	0.454	-	0.352	0.612	584.180	585.880
A29	0.000	0.897	0.009	0.102	-	0.243	0.433	0.543	584.596	586.296
A30	0.000	0.896	0.007	-	0.983	0.469	0.160	0.038	583.355	585.054
A31	0.000	0.896	0.009	0.103	0.977	0.371	0.435	0.545	586.596	588.579

Table 5: Results of the mediation analysis, Part A: Distrust in the EU

5.2.2. Part B: Satisfaction with the Functioning the EU

For Part B, 31 models have been created once more to cover for all possible combinations of the five mediating variables (See Table 6). Model B2 and Model B3 show considerably lower scores on the BIC than the other models, indicating that in these models the least information is lost after adding a new variable. Again, this are the models that include the At-Risk-Of-Poverty Rate (AIC = 587.647; BIC = 588.504) and the Employment Rate (AIC = 588.097; BIC = 588.953). Furthermore, Model B10, including both variables, shows a lower AIC and BIC as well (AIC = 590.097; BIC = 591.239). Both variables appear to have no significant impact on the EU Discontent Rate an such, but mediate the Discontent Rate through the Satisfaction with the Functioning of the EU Score. Thus again, regions in which unemployment is high and the At-Risk-Of-Poverty rate is high as well, dissatisfaction with the functioning of the EU is translated to a Eurosceptic voting behaviour.

Model	Significance	R^2	Significance Satisfaction	Significance GDP	Significance Poverty	Significance Unemployment	Significance Old-Aged	Significance Education	AIC	BIC
B1	0.000	0.909	0.000	0.001	-	-	-	-	593.206	594.063
B2	**0.000**	**0.903**	**0.000**	**-**	**0.767**	**-**	**-**	**-**	**587.647**	**588.504**
B3	**0.000**	**0.903**	**0.000**	**-**	**-**	**0.712**	**-**	**-**	**588.097**	**588.953**
B4	0.000	0.910	0.000	-	-	-	0.001	-	594.170	595.026
B5	0.000	0.907	0.000	-	-	-	-	0.014	590.850	591.702
B6	0.000	0.910	0.000	0.001	0.426	-	-	-	595.687	596.829
B7	0.000	0.911	0.000	0.000	-	0.098	-	-	596.656	597.798
B8	0.000	0.912	0.000	0.041	-	-	0.018	-	598.130	599.273
B9	0.000	0.909	0.000	0.034	-	-	-	0.891	595.206	596.348
B10	0.000	0.904	0.000	-	0.436	0.419	-	-	590.097	591.239
B11	0.000	0.910	0.000	-	0.759	-	0.001	-	596.170	597.312
B12	0.000	0.907	0.000	-	-0.487	-	-	0.011	593.312	594.454
B13	0.000	0.910	0.000	-	-	0.847	0.001	-	596.170	597.312
B14	0.000	0.908	0.000	-	-	0.130	-	0.004	594.254	595.396
B15	0.000	0.911	0.000	-	-	-	0.004	0.115	597.144	598.287
B16	0.000	0.911	0.000	0.000	0.689	0.134	-	-	598.657	600.083
B17	0.000	0.913	0.000	0.039	0.657	-	0.023	-	600.130	601.558
B18	0.000	0.910	0.000	0.030	0.397	-	-	0.746	597.687	599.114
B19	0.000	0.913	0.000	0.020	-	0.252	0.040	-	600.628	602.056
B20	0.000	0.911	0.000	0.023	-	0.084	-	0.593	598.656	600.083
B21	0.000	0.912	0.000	0.188	-	-	0.018	0.848	600.130	601.558
B22	0.000	0.910	0.000	-	0.534	0.566	0.001	-	598.170	599.597
B23	0.000	0.908	0.000	-	0.711	0.165	-	0.006	596.254	597.682
B24	0.000	0.912	0.000	-	0.728	-	0.005	0.114	599.144	600.572
B25	0.000	0.912	0.000	-	-	0.322	0.008	0.065	599.636	601.064
B26	0.000	0.913	0.000	0.023	0.688	0.260	0.041	-	603.128	604.842
B27	0.000	0.911	0.000	0.024	0.728	0.124	-	0.620	600.656	602.369
B28	0.000	0.913	0.000	0.174	0.618	-	0.024	0.765	602.130	603.844
B29	0.000	0.913	0.000	0.135	-	0.223	0.042	0.638	603.128	604.842
B30	0.000	0.912	0.000	-	0.710	0.319	0.008	0.076	601.636	603.349
B31	0.000	0.913	0.000	0.137	0.722	0.244	0.043	0.666	605.128	607.127

Table 6: Results of the mediation analysis, Part B: Dissatisfaction with the functioning of the EU

Chapter 6: Concluding Remarks

6.1. Conclusion

The research presented in this thesis attempted to give a new dimension to the Geography of EU Discontent. Dijkstra et al. (2019) attempted to explain this phenomenon by examining regional socio-economic trends and characteristics as explanation of the Eurosceptic voting behaviour. This, however, has not considered the underlying reason why people vote for specific parties, as it may be likely that people vote for Eurosceptic parties without being Eurosceptic themselves. By introducing new variables to the Dijkstra model depicting political support in forms of trust in and satisfaction with the EU and the national government, this research attempted to cover this underlying reason. During the analytical process many variables were found on a LAU2 scalar level. These variables had to be transformed to a NUTS2 scalar level to match with the trust and satisfaction variables. For Germany, the United Kingdom and Italy, these variables had to be transformed to NUTS1, as the trust and satisfaction variables only consisted on a NUTS1 scalar level. Furthermore, other variables that might have any influence on the Eurosceptic voting behaviour have been added, including: freedom of the press, life satisfaction, and knowledge of the EU.

Before focusing on the results, one must reflect on the ecological fallacy that might occur. The variables of the Eurobarometer are transformed from micro data to macro data. This entails that these variables are an aggregate of individual values, from which the mean is taken per NUTS2 (or NUTS1) region. The CHES data about Eurosceptic votes is also an aggregate per NUTS2 (or NUTS1) region. This method enables ecological fallacy, as the outcomes can be significant, but it does not entail that the same individual has significantly corresponding values for these variables. For example, it does not mean that an individual scoring high on the trust variable, also voted for a Eurosceptic party. In section 6.2 this problem will be addressed further.

To analyse the Eurosceptic voting behaviour, first a multiple linear regression has been conducted. Albeit on a larger scalar level, this confirmed parts of the Dijkstra report. Less wealthy and low employed regions tend to have a higher share of votes for Eurosceptic parties. Furthermore, satisfaction with the functioning of the EU appeared to have a significant influence on the Eurosceptic voting behaviour. Regions that are on average less satisfied with the functioning of the EU tend to vote more Eurosceptic. This can be linked to the model of societal unease and discontent (Steenvoorden, 2015). People can be dissatisfied because they feel like their national ideology is being replaced by an overarching EU ideology and they feel like their national government is losing more and more power.

Life satisfaction also tends to be correlated with the Eurosceptic voting behaviour. Happier regions vote less Eurosceptic, which is also in line when combining several theories. Happy

people are often employed (Clark, 2003), higher educated (Hartog & Oosterbeek, 1998; Stutzer, 2004) and thus, wealthier (Clark, 2003). This is exactly what Dijkstra et al. (2019) found in their Geography of EU Discontent. Next, press freedom also appears to be significant. Regions in which the press is relatively free, have significantly lower shares of Eurosceptic votes than regions with unfree press. An example might have occurred in Austria, where right-winged media stations were influenced with Russian money to create an anti-EU and anti western discourse (Weidinger et al., 2017). This is visible in the World Press Freedom Index of Austria. Relative to their socio-economic size and position in Europe, Austria scores relatively bad on the Index (18).

Lastly, albeit on a different significance interval, trust in the national government tends to be correlated with the Eurosceptic voting behaviour. Regions with a relatively high distrust in their own national government tend to vote more for Eurosceptic parties. This might indicate that there is a large share of people who vote for Eurosceptic parties not for the Eurosceptic viewing points, but for other populist viewing points. As Dijkstra et al. (2019) stated, the relation between votes for Eurosceptic parties and Euroscepticism is far from certain and depends on the narrowness of the definitions used. Only 20% of the votes for the most populist parties go to parties that are strongly opposing the EU and only 35% of the votes for the most populist parties go to parties that are strongly opposing EU integration. However, it must be admitted that national politics are heavily intertwined with politics in the EU. Further research should dive in this outcome deeper, for example by conducting in-depth interviews based on peoples voting behaviour.

Second, this research conducted two mediation analyses in which the underlying mechanisms of the relations between trust in and satisfaction with the functioning of the EU on the one hand and the Eurosceptic voting behaviour on the other hand are explored. It appeared that for both the trust variable as the satisfaction variable that the share op people at risk of poverty and the unemployment rate have a mediating influence on this relationship. In other words, distrust in and dissatisfaction with the functioning of the EU is translated to a Eurosceptic voting behaviour if there high at-risk-of-poverty rates and high unemployment rates in the region. When these two mediating variables are high, it become characteristics of the so-called “left-behind” places or places that “do not matter” (Rodriquez-Pose, 2018). The feeling of being neglected by politics creates a sense of distrust and dissatisfaction, which is translated to a Eurosceptic voting behaviour.

6.2. Recommendations

So far, it has been established that populism, Euroscepticism and the related voting behaviour are intertwined subjects that are hard to distinguish. To do so, one should explore the concept of political support for both the national government and the European Union. This research made use of micro data from the Eurobarometer, but transformed it to macro

data on a NUTS2 (or NUTS1) scalar level. Although conducting the research this way has given insightful outcomes on the regional level, it also enabled doubt regarding ecological fallacy. Analysing on a macro level does not necessarily prove significant outcomes on a micro level. Thus, further research should focus on micro level data. The micro data of the Eurobarometer can be used to analyse distrust in and dissatisfaction with both the EU and the national government. By using a multi-level modelling approach, one might be able to explain the factors influencing distrust and dissatisfaction on a micro level, thus, without encountering the problem of ecological fallacy.

References

Akaike, H., (1977). On entropy maximization principle, Applications of Statistics, North Holland, Amsterdam, pp. 27-41.

Albertazzi, D., McDonnell, D. (2008). Twenty-First Century Populism: The Spectre of Western European Democracy. Palgrave Macmillan.

Anonymous. (2019, May 9). Populism and Polarisation threaten Latin America. *The Economist.* Retrieved 09-05-2020 from: https://www.economist.com/briefing/2019/05/09/populism-and-polarisation-threaten-latin-america

Autor, D. (2015). Why Are There Still So Many Jobs? The History and Future of Workplace Automation, *Journal of Economic Perspectives*, 29(3), pp. 3 – 30.

Ballas, D., Dorling, D. (2013). The Geography of Happiness, *Oxford Handbook of Happiness.* Retrieved 01-06-2020 from: https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199557257.001.0001/oxfordhb-9780199557257-e-036

Beck, T., Underhill, G. (2017). Quo Vadis? Identity, Policy and the Future of the European Union. *CEPR Press,* London. 65 – 72.

Beck, U. (2006). Living in the world risk society. *Economy and Society*, 35(3), 329–345.

Becker, S., Fetzer, T., Novy, D. (2017). Who voted for Brexit? A comprehensive district-level analysis. *Economic Policy*, 32(92), 601–650

BlanchFlower, D., Oswald, A. (2008). Hypertension and happiness across nations, *Journal of Health Economics.* 27(2), 218-233.

Boeri, T., Brücker, H., Docquier, F., Rapoport, H. (2012). Brain Drain and Brain Gain: The Global Competition to Attract High-Skilled Migrants. *Oxford Scholarship Online*.

Castaño, P. (2018). Populism and Democracy. *Revista Internacional de Sociología* 76(4), 113-134.

Chan, J., To, H., & Chan, E. (2006). Reconsidering social cohesion: Developing a definition and analytical framework for empirical research. *Social Indicators Research, 75*(2), 273–302.

Chapel Hill Expert Survey. (2020) Chapel Hill Expert Survey, Mission. Retrieved on 09-07-2020 from: https://www.chesdata.eu/

CHES. (2017). Explaining the salience of anti-elitism and reducing political corruption for political parties in Europe with the 2014 Chapel Hill Expert Surbey data. *Research & Politics.* 1-9.

Cholova, B., De Waele, J. (2014). Populism in Bulgaria. *Southeastern Europe, 38, 56 – 86.*

Christensen, T., Laegreid, P. (2005). Trust in Government: The Relative Importance of Service Satisfaction, Political Factors, and Demography. *Public Performance & Management Review,* 28(4), 487 – 511.

Clark, A. E. (2003). Unemployment as a social norm: Psychological evidence from panel data. *Journal of Labor Economics*, 21, 324–351.

Criado, H., Herreros, D. (2007). Political Support: Taking Into Account the Institutional Context. *Comparative Political Studies,* 40(12), 1511 – 1532.

Coyle, D., Ford, R. (2017) Brussels Bureaucrats and Whitehall Mandarins: Taking regional identity seriously. *Center for Economic Policy Research,* 65 – 72.

Dijkstra, L., Poelman, H., Rodríguez-Pose, A. (2019, December 7). The Geography of EU Discontent. *Voxeu.* Retrieved on: 11-08-2020 from: https://voxeu.org/article/geography-eu-discontent

Dijkstra, L., Poelman, H., Rodríguez-Pose, A. (2019). The Geography of EU Discontent. *Regional Studies,* 54(6), 737 – 753.

Dijkstra, L., Poelman, H., Rodríguez-Pose, A. (2019). The Geography of EU Discontent. *European Commission, Regional Policy.* Retrieved 05-05-2020 from: https://ec.europa.eu/regional_policy/sources/docgener/work/2018_02_geog_discontent.pdf

Dolan, P., Peasgood, T., & White, M. (2007). Do we really know what makes us happy? A review of the literature on the factors associated with subjective well-being. *Journal of Economic Psychology*, 29, 94–122.

Easterlin, R. A. (1974). Does Economic Growth Improve the Human Lot? Some Empirical Evidence. *Academic Press*, pp. 89-125.

Egger, H., Kreickemeier, U., Moser, C., Wrona, J. (2016). Offshoring and job polarisation between firms, *CEPIE Working Paper*, 8(16).

Ellinas, A., Lamprianou, I. (2014). Political Trust in Extremis. *Comparative Politics,* 46(2), 231 – 250.

Eurobarometer. (2016). Eurobarometer 2016. Retrieved on 12-02-2020 from: https://www.europarl.europa.eu/news/en/headlines/priorities/eurobarometer

European Commission. (2020). Cohesion Fund. Retrieved on 14-07-2020 from: https://ec.europa.eu/regional_policy/en/funding/cohesion-fund/

European Commission. (2020). European Regional Development Fund. Retrieved on 14-07-2020 from: https://ec.europa.eu/regional_policy/en/funding/erdf/

European Commission. (2020). Internal Market, Industry, Entrepreneurship and SMEs. Retrieved on 27-05-2020 from: https://ec.europa.eu/growth/single-market_en

European Environment Agency. (2020). National Emission Ceilings Directive. Retrieved on 13-07-2020 from: https://www.eea.europa.eu/themes/air/air-pollution-sources-1/national-emission-ceilings

European Parliament. (2016, April 11). Teaching about the EU: "44% of Europeans don't understand how the EU works". Retrieved on 14-07-2020 from: https://www.europarl.europa.eu/news/en/headlines/society/20160408STO22170/teaching-about-the-eu-44-of-europeans-don-t-understand-how-the-eu-works

European Parliament. (2020). Eurobarometer, The EP and the expectations of European citizens. Retrieved on 09-07-2020 from: https://www.europarl.europa.eu/at-your-service/en/be-heard/eurobarometer

Eurostat. (2020). Population and Housing Census. Retrieved on 09-07-2020 from: https://ec.europa.eu/eurostat/web/population-and-housing-census/census-data/2011-census

Eurostat. (2020). Regional Accounts. Retrieved on 09-07-2020 from: https://ec.europa.eu/eurostat/web/national-accounts/regional-accounts

Ferrer-i-Carbonella, A., & Gowdy, J. M. (2007). Environmental awareness and happiness. *Ecological Economics*, 60, 509–516.

Frank, R (2005), Falling Behind: How Rising Inequality Harms the Middle Class. *Wildavsky Forum Series*, 4.

Fromm, E. (1960 [1942]). *The fear of freedom.* London: Routledge & Kegan Paul Ltd.

FvD. (2019, September 30) FVD presenteert snelle, praktische oplossing voor stikstof-impasse. Retrieved on 13-07-2020 from: https://www.fvd.nl/fvd-presenteert-snelle-praktische-oplossing-voor-stikstof-impasse

Gibbs, P. (2015) Happiness and education: troubling students for their own contentment. *Time & Society*, 24 (1). pp. 54-70.

Gopalakrishnan, C. (2008). Pareto optimum. *The American Economist*, *52*(1), 108–108.

Halleck Vega, S., & Elhorst, J. P. (2014). Modeling regional labor market dynamics in space and time. *Papers in Regional Science*, 93(4), 819-841.

Hamburger, J. (2019, January 3). France's Yellow Vests: A Test for the Populist Left. *Dissent.* Retrieved on 12-08-2020 from: https://www.dissentmagazine.org/blog/frances-yellow-vests-a-test-for-the-populist-left

Hay, C. (2007). Why we hate politics. Cambridge: Polity Press

Helliwell, J., Layard, R., Sachs, J., De Neve, J. (2020). World Happiness Report 2020. *Sustainable Development Solutions Network,* New York.

Heywood, A. (2003). Political ideologies. An introduction. New York: Palgrave MacMillen

Hobolt, S. (2016) The Brexit vote: a divided nation, a divided continent. *Journal of European Public Policy.* 23(9), pp 1259-1277.

Hooghe, L., & Marks, G. (2005). Calculation, community and cues public opinion on European integration. *European Union Politics*, 6(4), 419–443.

Iammarino, S., Rodríguez-Pose, A., Storper, M. (2019). Regional ineguality in Europe: evidence, theory and policy implications. *Journal of Economic Geography.* 19(2), pp 273 – 298.

King, R., Lulle, A., Morosanu, L., Williams, A. (2016). International Youth Mobility and Life Transitions in Europe: Questions, Definitions, Typologies and Theoretical Approaches. *University of Sussex, Sussex Centre for Migration Research.* Working Paper 86

Kuus, M.E.R.J.E. (2011). Bureaucracy and place: expertise in the European quarter. *Global Networks,* 11(4).

Lee, N., Morris, K., & Kemeny, T. (2018). Immobility and the Brexit vote. *Cambridge Journal of Regions, Economy and Society*, 11(1), 143–163

LeGates, R. T., & Stout, F. (2011). The city reader. London: Routledge

Lessmann, C., Seidel, A. (2017). Regional inequality, convergence, and its determinants–A view from outer space. *European Economic Review*. 92, 110-132.

Likic-Brboric, B., Slavnic, Z., Woolfson, C. (2013). Labour Migration And Informalisation: East Meets West. *International Journal of Sociology and Social Policy,* 33(11), 677-692.

Lu, L., & Gilmour, R. (2004). Culture and conceptions of happiness: Individual oriented and social oriented SWB. *Journal of Happiness Studies*, 5, 269–291.

McClay, W. (2017). Populism. *The Hedgehog Review,* 19, 2.

McKay, L. (2018). Left Behind people, or places? The role of local economies in perceived community representation. *Electoral Studies,* 60.

Merelli, A. (2019, December 30). The State of Global Right-wing Populism in 2019. *Quartz,* Retrieved 09-05-2020 from: https://qz.com/1774201/the-global-state-of-right-wing-populism-in-2019/

Mikucka-Wójtowicz, D. (2019) The Chameleon Nature of Populist Parties. How Recurring Populism is Luring 'the People' of Serbia and Croatia. *Europe-Asia Studies*, 71:3, 450-479

Morgan, J., Robinson, O., & Thompson, T. (2015). Happiness and age in European adults: The moderating role of gross domestic product per capita. *Psychology and Aging*, 30(3), 544–551.

Mudde, C. (2004), The Populist Zeitgeist. *Government and Opposition*, 39, 541-563.

NOS. (2018, December 5). Frankrijk schrapt verhoging benzineprijzen voorlopig helemaal. *NOS.* Retrieved on 12-08-2020 from: https://nos.nl/artikel/2262215-frankrijk-schrapt-verhoging-benzineprijzen-voorlopig-helemaal.html

NOS. (2019, November 14). Felle Kritiek Oppositie, maar voldoende steun voor stikstofplannen. *NOS.* Retrieved on 13-07-2020 from: https://nos.nl/artikel/2310413-felle-kritiek-oppositie-maar-voldoende-steun-voor-stikstofplannen.html

NOS. (2019, October 1). Boerenprotest Den Haag voorbij, 2200 trekkers terug naar huis. *NOS.* Retrieved on 09-07-2020 from: https://nos.nl/liveblog/2304125-boerenprotest-den-haag-voorbij-2200-trekkers-terug-naar-huis.html

Oswald, A.J. and Powdthavee, N. (2005). Does happiness adapt? A longitudinal study of disability with implications for economists and judges. *University of Warwick Working Paper, Department of Economics.*

Oxford Consultants for Social Inclusion. (2019) Left Behind? Understanding communities on the edge, *Local Trust*. Accessed 05-05-2020 from: https://localtrust.org.uk/wp-content/uploads/2019/08/local_trust_ocsi_left_behind_research_august_2019.pdf

Pernicka, S., Lahusen, C. (2018). Power and Counter Power in Europe. The Transnational Structuring of Social Spaces and Social Fields. *Österreich Z Soziol,* 43**,** 1–11

Piketty, T. (2014). *Capital in the twenty-first century*. (Capital in the Twenty-First Century.) Cambridge Massachusetts: The Belknap Press of Harvard University Press.

Remkes, J.W., Dijkgraaf, E., Freriks, A., Gerbrandy, G.J., Maij, W.H., Hijhof, A.G., Post, E., Rabbinge, R., Scholten, M.C.T. and Vet, L. (2019). Niet Alles Kan, Eerste Advies van het Adviescollege Stikstofproblematiek. Retrieved on 13-07-2020 from: https://www.rijksoverheid.nl/documenten/rapporten/2019/09/25/eerste-advies-adviescollege-stikstofproblematiek

Reporters Without Borders. (2018). World Press Freedom Index 2018. Retrieved on 19-06-2020 from: https://rsf.org/en/ranking/2018

Reporters Without Borders. (2020). Reporters Without Borders, Presentations. Retrieved on 07-07-2020 from: https://rsf.org/en/presentation

Roberts, P. (2013). Happiness, despair and education. *Studies in Philosophy and Education : An International Journal*, 32(5), 463–475.

Rodriquez-Pose, A. (2018). The revenge of places that don't matter (and what to do about it). *Camebridge Journal of Regions, Economy and Society* 11(1): 189-209.

Schwarz, G.E. (1978). Estimating the dimension of a model, Annals of Statistics. 6(2), pp. 461 - 464.

Sen, A. (1987). *The Standard of Living.* Cambridge: Cambridge University Press.

Sikk, A., Hanley, S. (2012). Paths to "Centrist Populism"? Explaining the Emergence of Anti-Establishment Reform Parties. *IPSA World Congress.*

Steenvoorden, E. (2015) A General Discontent Disentangled: A Conceptual and Empirical Framework for Societal Unease. *Soc Indic Res*, 124, 85–110

Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, *385*(9968), 640–648.

Taggart, P. Szczerbiak, A. (2001). The Party Politics of Euroscepticism in EU Member and Candidate States. *Sussex European Institute.*

Thorbecke, E., & Babcock, H. E. (2002). Happiness and economics. *The Journal of Socio-Economics*, *31*(5), 581–582.

Weidinger, B., Schmid, F., Krekó, P. (2017). Russian Connections of the Austrian Far-Right. *Political Capital.* Retrieved on 14-07-2020 from: https://www.politicalcapital.hu/pc-admin/source/documents/PC_NED_country_study_AT_20170428.pdf

Appendices

1. Year of election used per country

Country	Year	Country	Year
Austria	2017	**Italy**	2018
Belgium	2014	**Lithuania**	2016
Bulgaria	2017	**Luxembourg**	2013
Czech Republic	2017	**Latvia**	2014
Germany	2017	**Malta**	2017
Denmark	2015	**The Netherlands**	2017
Estonia	2015	**Poland**	2015
Greece	2015	**Portugal**	2015
Spain	2016	**Romania**	2016
Finland	2015	**Sweden**	2014
France	2017	**Slovenia**	2014
Croatia	2016	**Slovakia**	2016
Hungary	2014	**United Kingdom**	2015
Ireland	2016		

2. All possible models in both mediation analyses

Trust in the EU		***Satisfaction with the functioning of the EU***	
Model	**Included variables**	**Model**	**Included variables**
A1	Share of people distrusting the EU; GDP per Capita	**B1**	Satisfaction with the EU Score; GDP per Capita
A2	Share of people distrusting the EU; At-Risk-Of-Poverty Rate	**B2**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate
A3	Share of people distrusting the EU; Employment Rate	**B3**	Satisfaction with the EU Score; Employment Rate
A4	Share of people distrusting the EU; Old-Aged Population	**B4**	Satisfaction with the EU Score; Old-Aged Population
A5	Share of people distrusting the EU; Share of tertiary educated people	**B5**	Satisfaction with the EU Score; Share of tertiary educated people
A6	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate	**B6**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate
A7	Share of people distrusting the EU; GDP per Capita; Employment Rate	**B7**	Satisfaction with the EU Score; GDP per Capita; Employment Rate
A8	Share of people distrusting the EU; GDP per Capita; Old-Aged Population	**B8**	Satisfaction with the EU Score; GDP per Capita; Old-Aged Population
A9	Share of people distrusting the EU; GDP per Capita	**B9**	Satisfaction with the EU Score; GDP per Capita
A10	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Employment Rate	**B10**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Employment Rate
A11	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Old-Aged Population	**B11**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Old-Aged Population
A12	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Share of tertiary educated people	**B12**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Share of tertiary educated people

A13	Share of people distrusting the EU; Employment Rate; Old-Aged Population	**B13**	Satisfaction with the EU Score; Employment Rate; Old-Aged Population
A14	Share of people distrusting the EU; Employment Rate; Share of tertiary educated people	**B14**	Satisfaction with the EU Score; Employment Rate; Share of tertiary educated people
A15	Share of people distrusting the EU; Old-Aged Population; Share of tertiary educated people	**B15**	Satisfaction with the EU Score; Old-Aged Population; Share of tertiary educated people
A16	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate	**B16**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate
A17	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Old-Aged Population	**B17**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Old-Aged Population
A18	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Share of tertiary educated people	**B18**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Share of tertiary educated people
A19	Share of people distrusting the EU; GDP per Capita; Employment Rate; Old-Aged Population	**B19**	Satisfaction with the EU Score; GDP per Capita; Employment Rate; Old-Aged Population
A20	Share of people distrusting the EU; GDP per Capita; Employment Rate; Share of tertiary educated people	**B20**	Satisfaction with the EU Score; GDP per Capita; Employment Rate; Share of tertiary educated people
A21	Share of people distrusting the EU; GDP per Capita; Old-Aged Population; Share of tertiary educated people	**B21**	Satisfaction with the EU Score; GDP per Capita; Old-Aged Population; Share of tertiary educated people
A22	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population	**B22**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population
A23	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Employment Rate; Share of tertiary educated people	**B23**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Employment Rate; Share of tertiary educated people

A24	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Old-Aged Population; Share of tertiary educated people	**B24**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Old-Aged Population; Share of tertiary educated people
A25	Share of people distrusting the EU; Employment Rate; Old-Aged Population; Share of tertiary educated people	**B25**	Satisfaction with the EU Score; Employment Rate; Old-Aged Population; Share of tertiary educated people
A26	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population	**B26**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population
A27	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate; Share of tertiary educated people	**B27**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate; Share of tertiary educated people
A28	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Old-Aged Population; Share of tertiary educated people	**B28**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Old-Aged Population; Share of tertiary educated people
A29	Share of people distrusting the EU; GDP per Capita; Employment Rate; Old-Aged Population; Share of tertiary educated people	**B29**	Satisfaction with the EU Score; GDP per Capita; Employment Rate; Old-Aged Population; Share of tertiary educated people
A30	Share of people distrusting the EU; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population; Share of tertiary educated people	**B30**	Satisfaction with the EU Score; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population; Share of tertiary educated people
A31	Share of people distrusting the EU; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population; Share of tertiary educated people	**B31**	Satisfaction with the EU Score; GDP per Capita; At-Risk-Of-Poverty Rate; Employment Rate; Old-Aged Population; Share of tertiary educated people

3. Visual Representation of all Variables

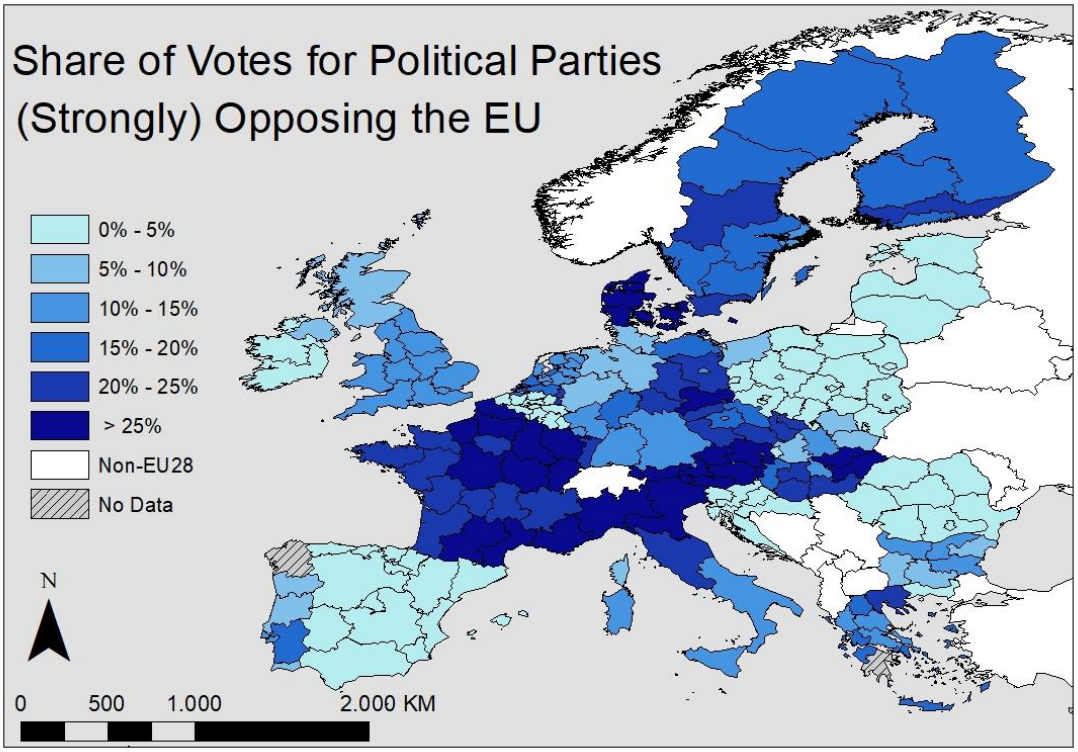
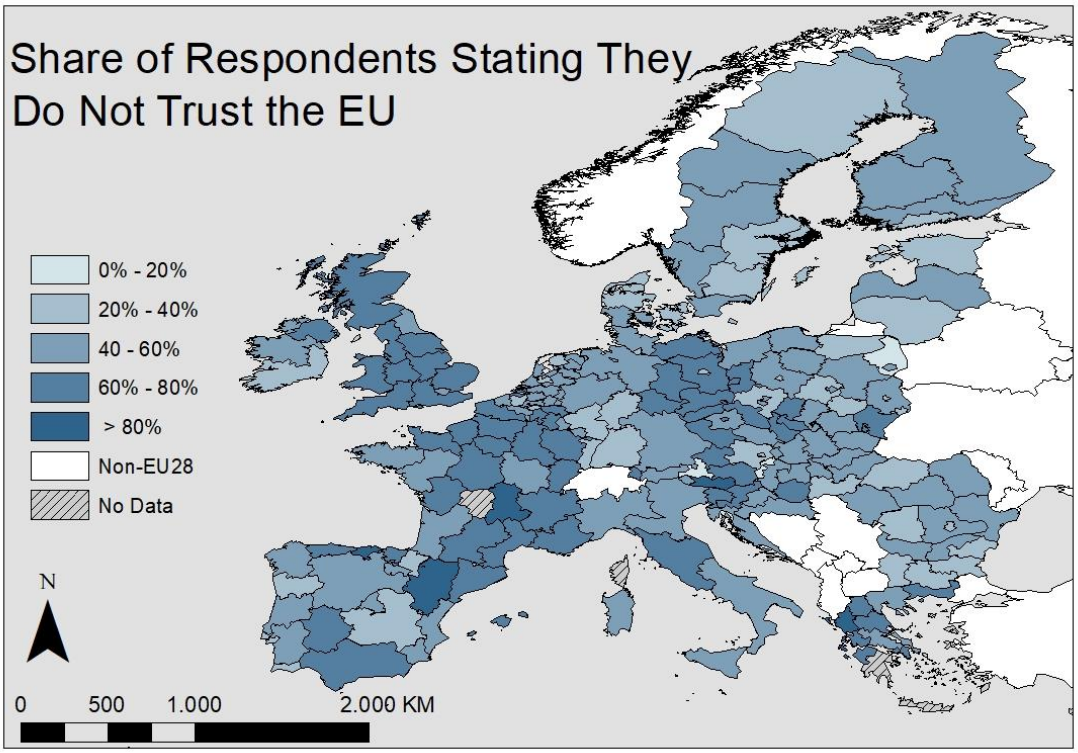
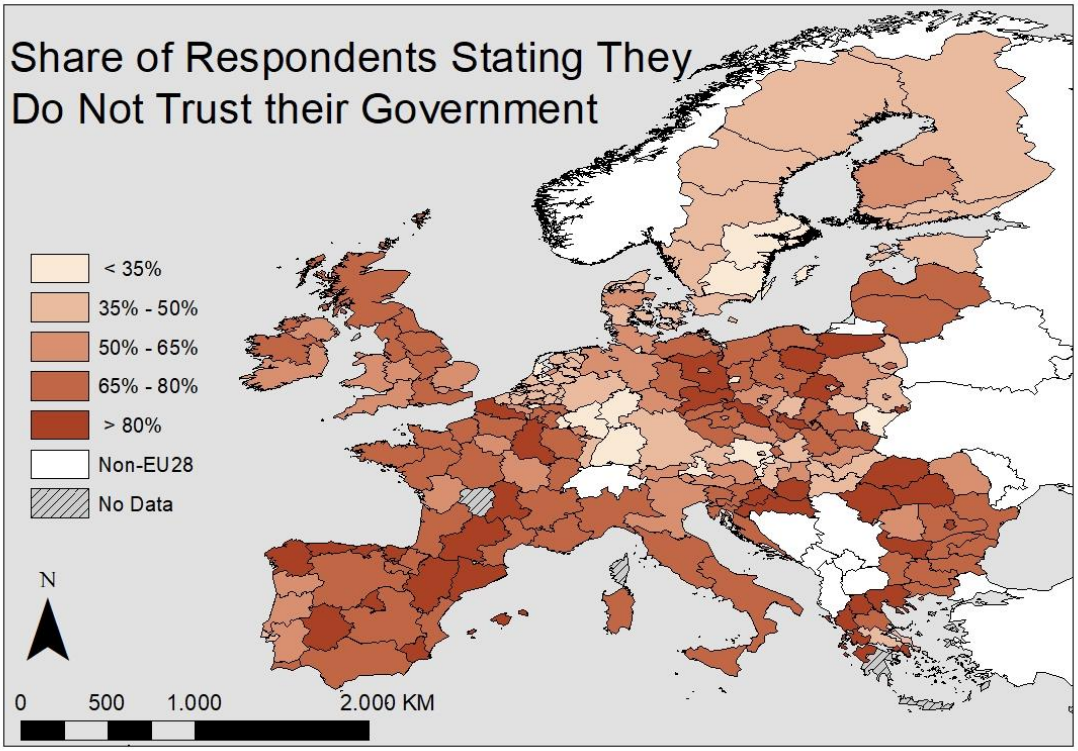


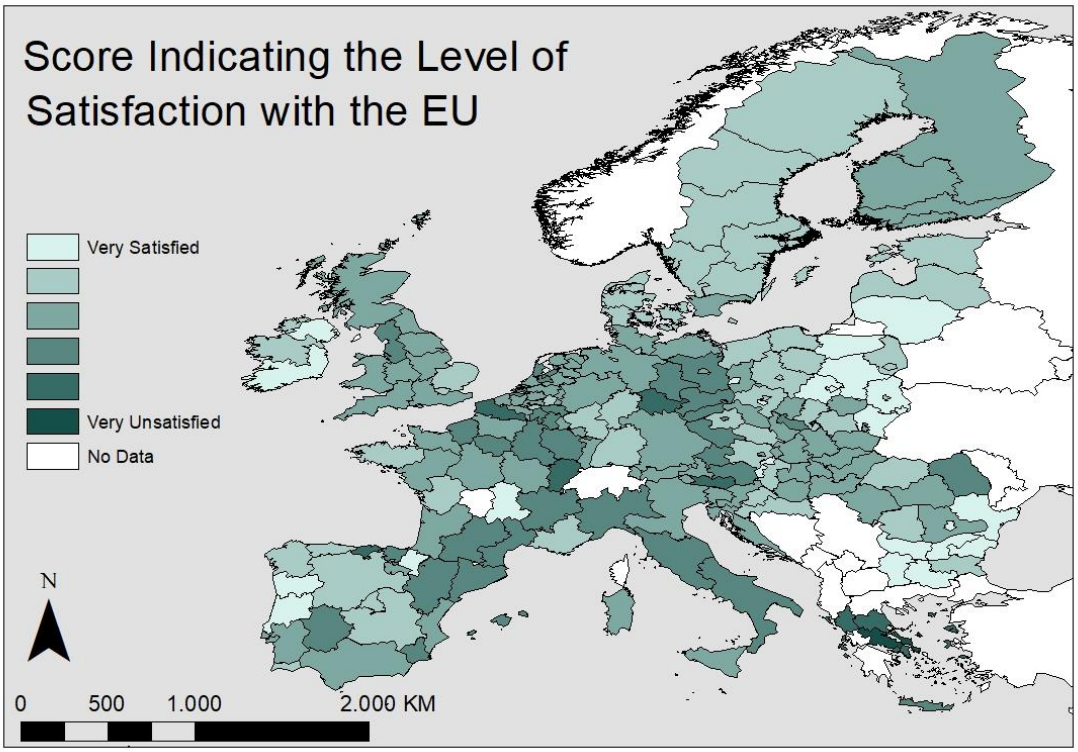
Figure 1: EU Discontent Rate. The share of votes for political parties (strongly) opposing the EU.



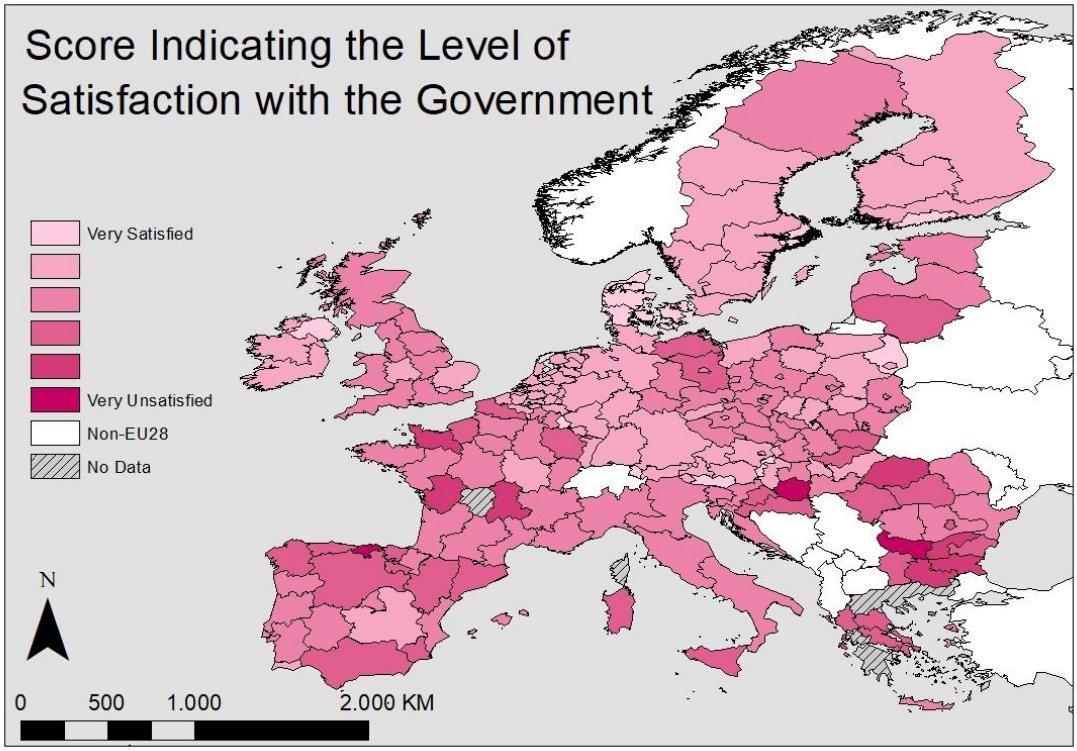
Map 2: Trust in the EU: Share of respondents stating they do not trust the EU.



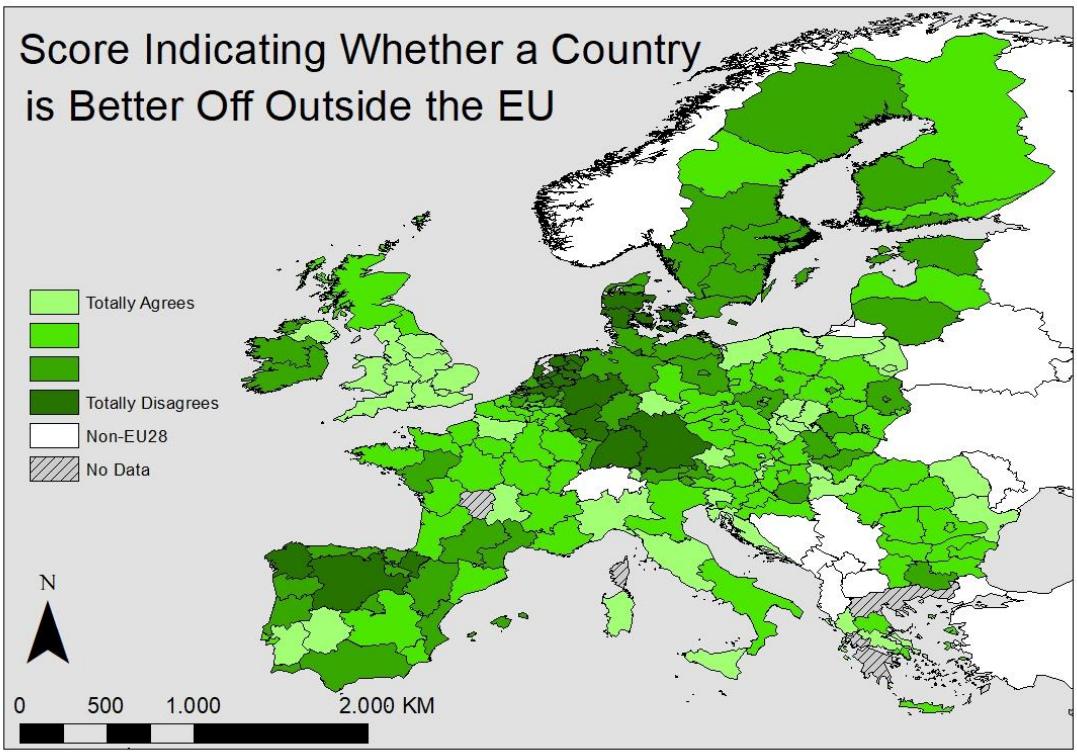
Map 3: Share of the respondents stating they do not trust their natioan government



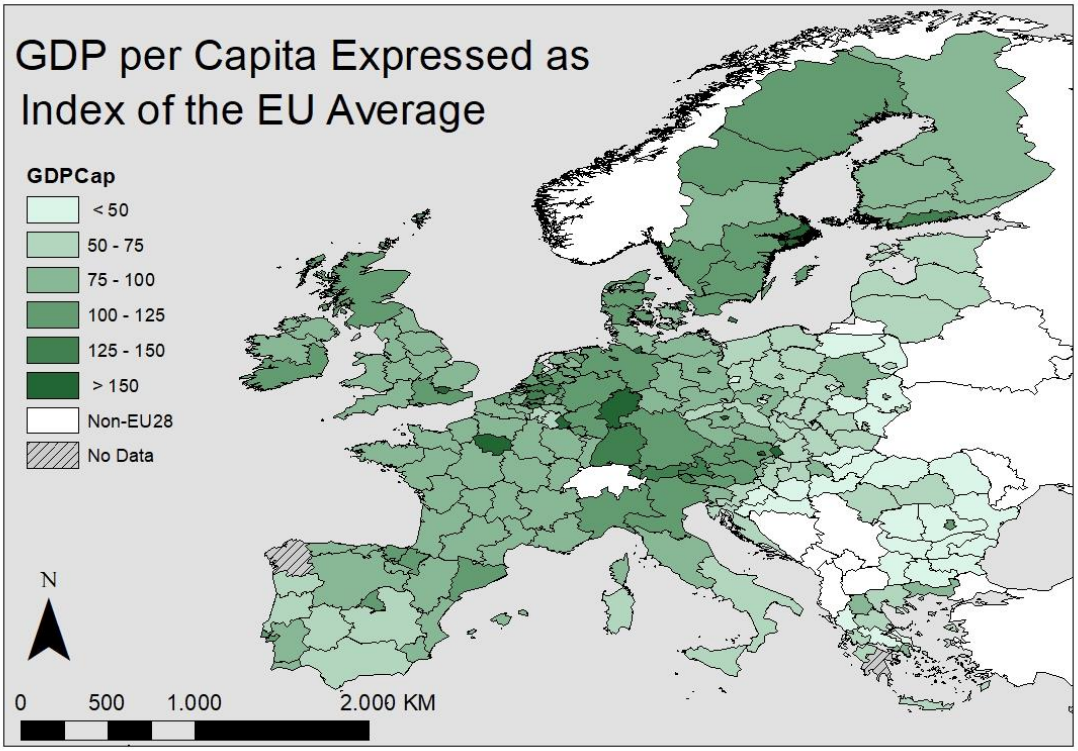
Map 4: Score indicating the level of satisfaction with the EU



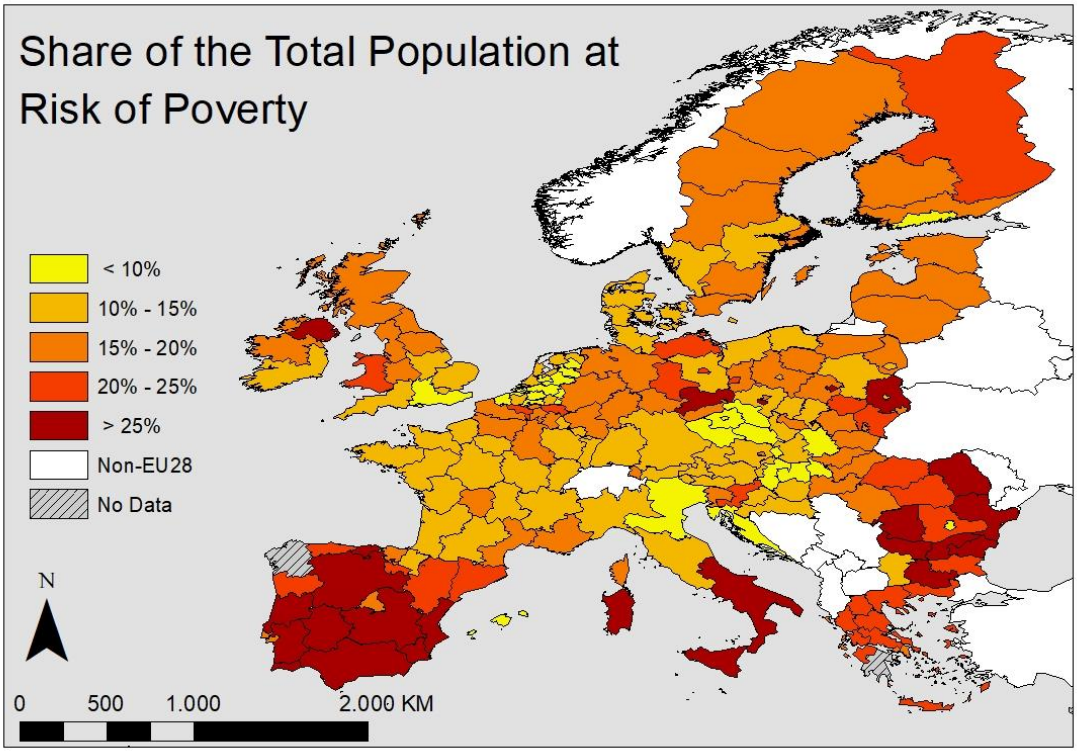
Map 5: Satisfaction with their national government: A score indicating whether a region is satisfied with the democratic functioning of their national government.



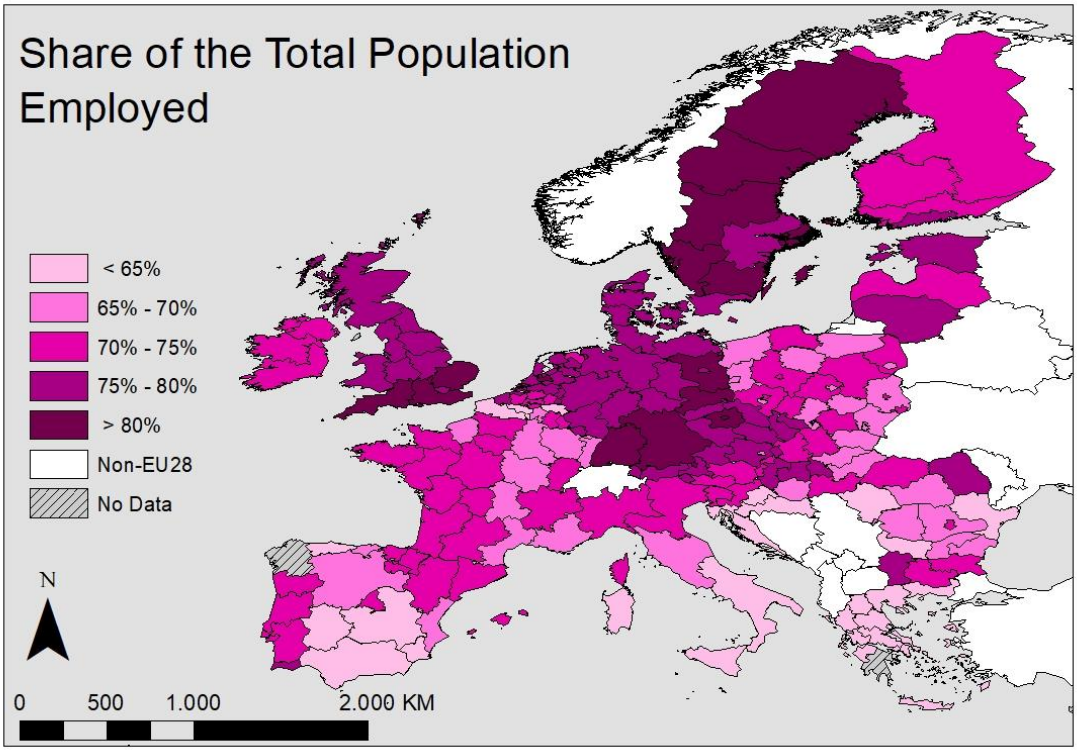
Map 6: Future in the EU Score: A score indicating whether a region thinks their country would be better off outside the EU.



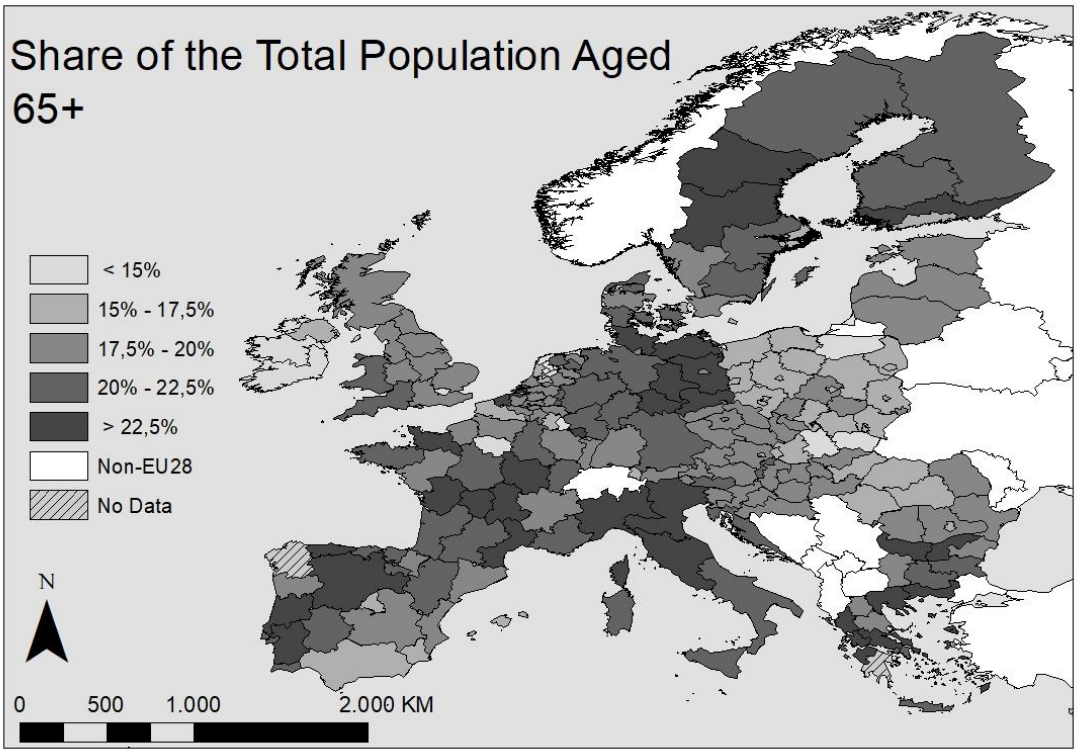
Map 7: GDP/Capita. The GDP per Capita in PPS in 2015, expressed as index of the EU-28 average.



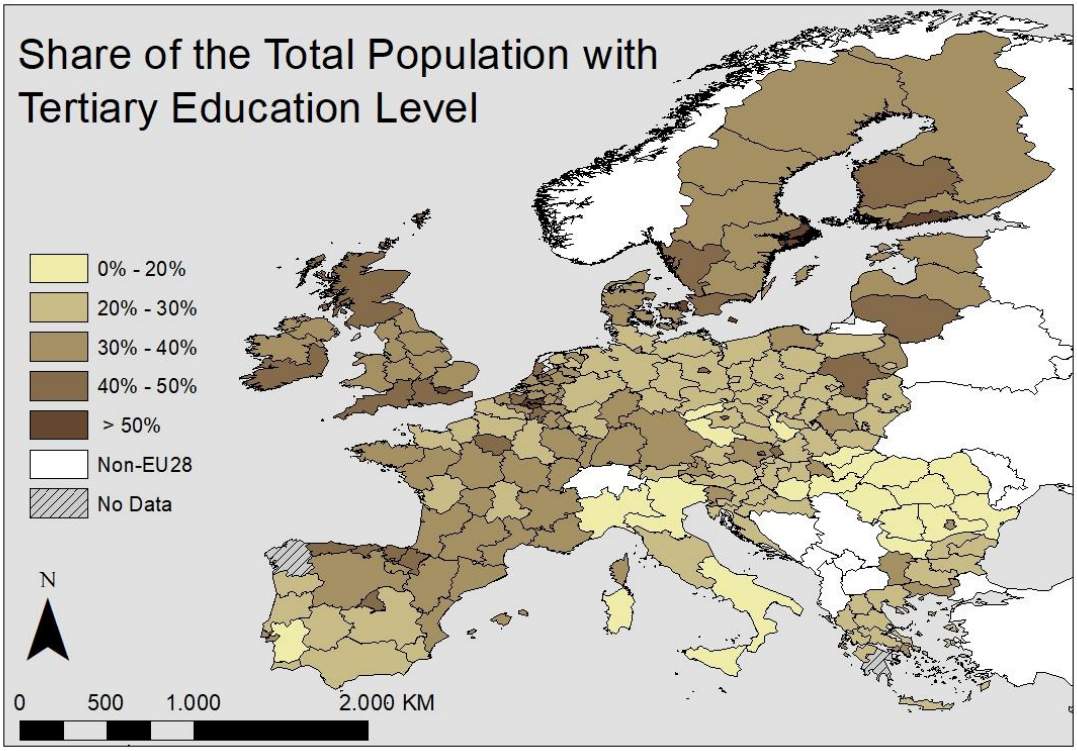
Map 8: At-Risk-Of-Poverty Rate: the share of the total population that is at risk of poverty.



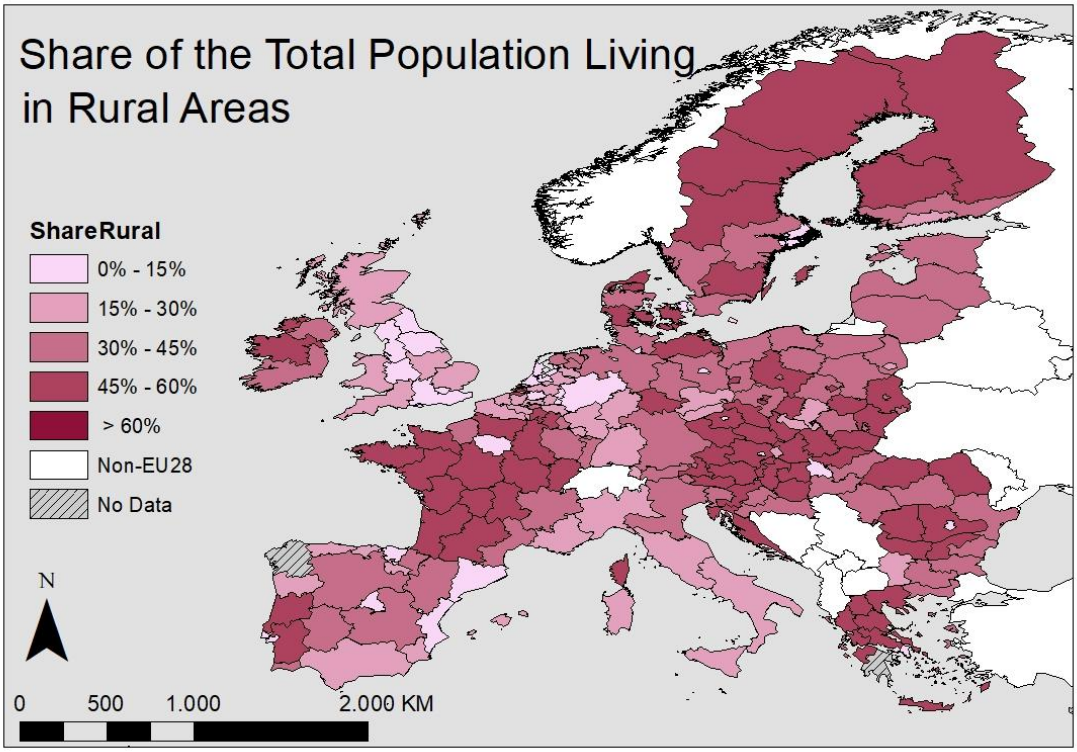
Map 9: Employment Rate. The share of the total population that is employed.



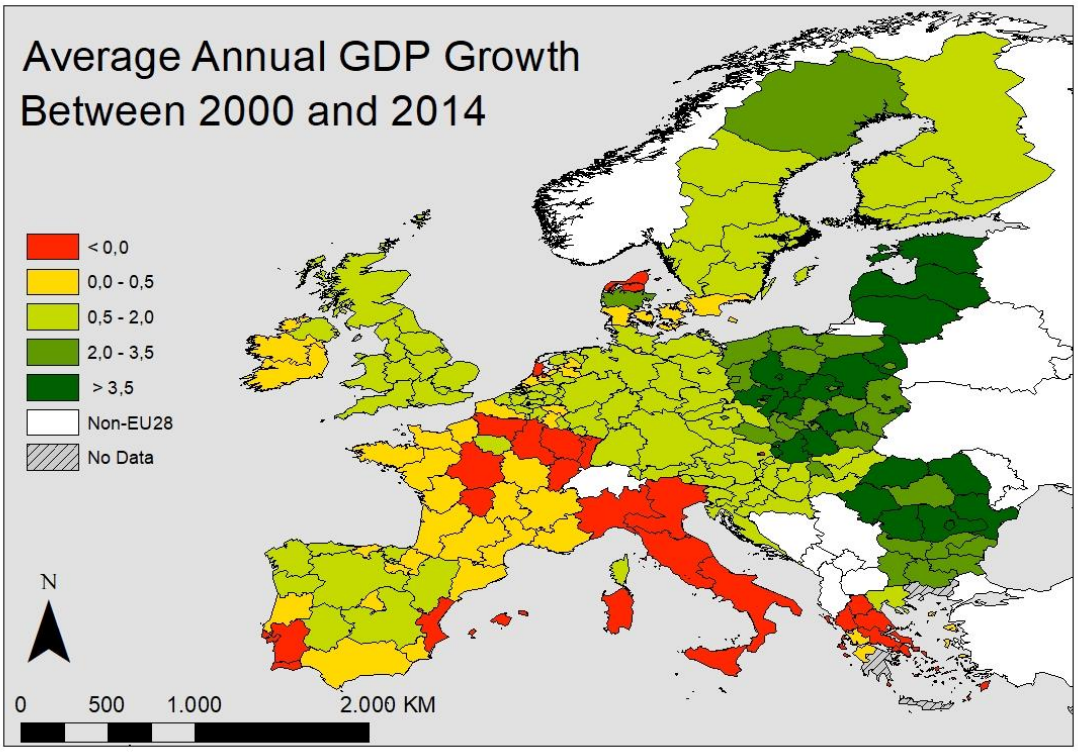
Map 10: Old-Aged population rate. The share of the total population that is 65 year and older.



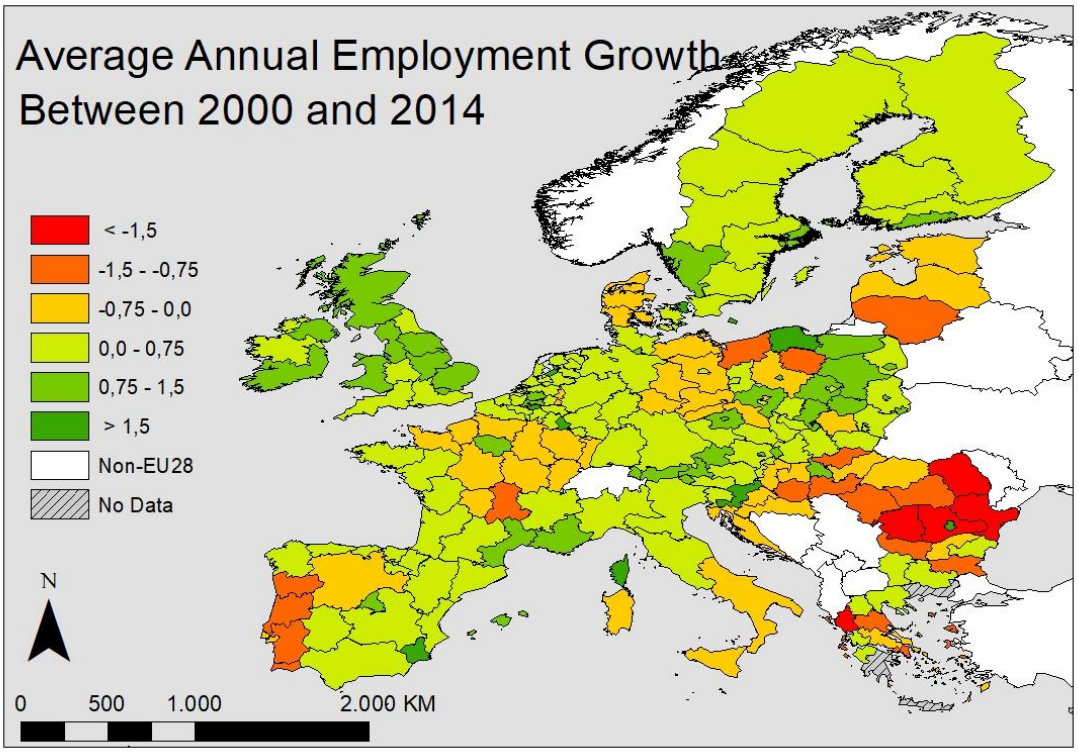
Map 11: Educated Population Rate. The share of the age group 20 to 64 with a tertiary education level.



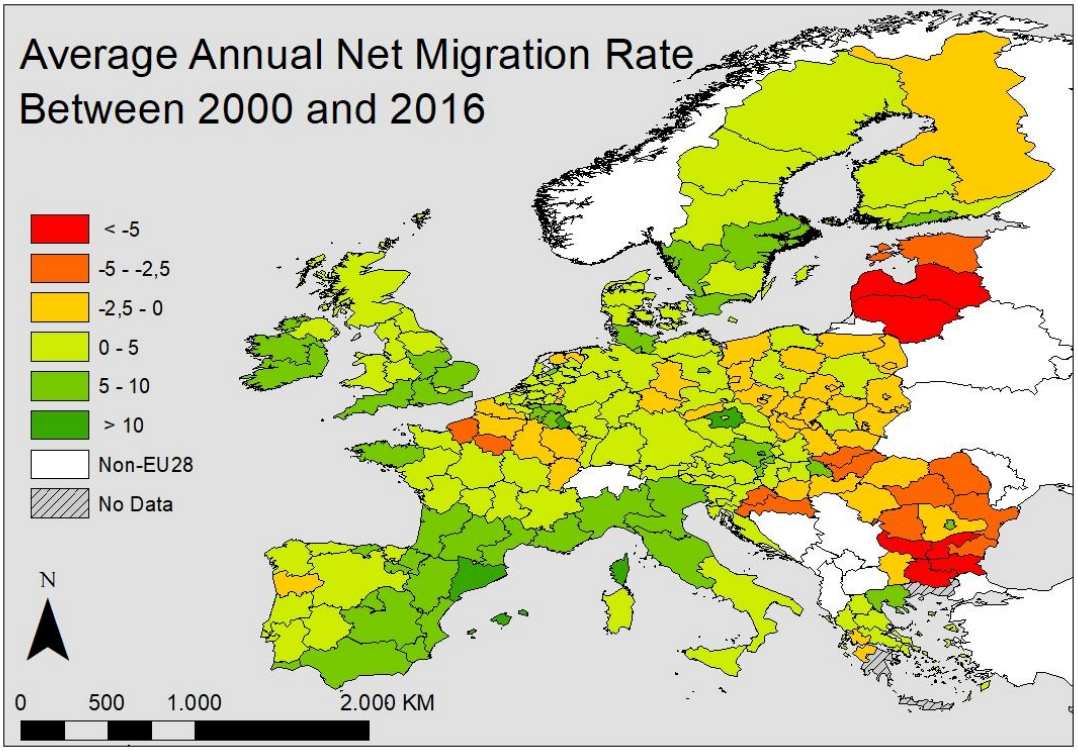
Map 12: Share of Rural Population: the share of the total population living in rural areas.



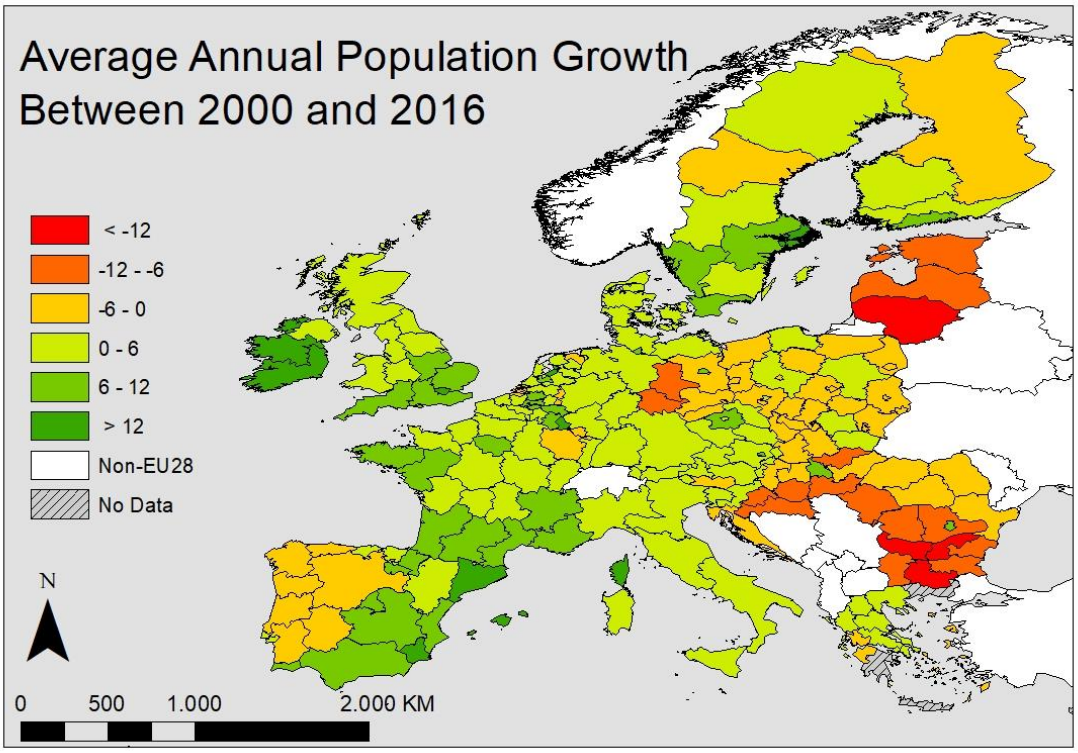
Map 13: GDP/cap Growth Rate. The annual average growth rate of GDP per capita between 2000 and 2014.



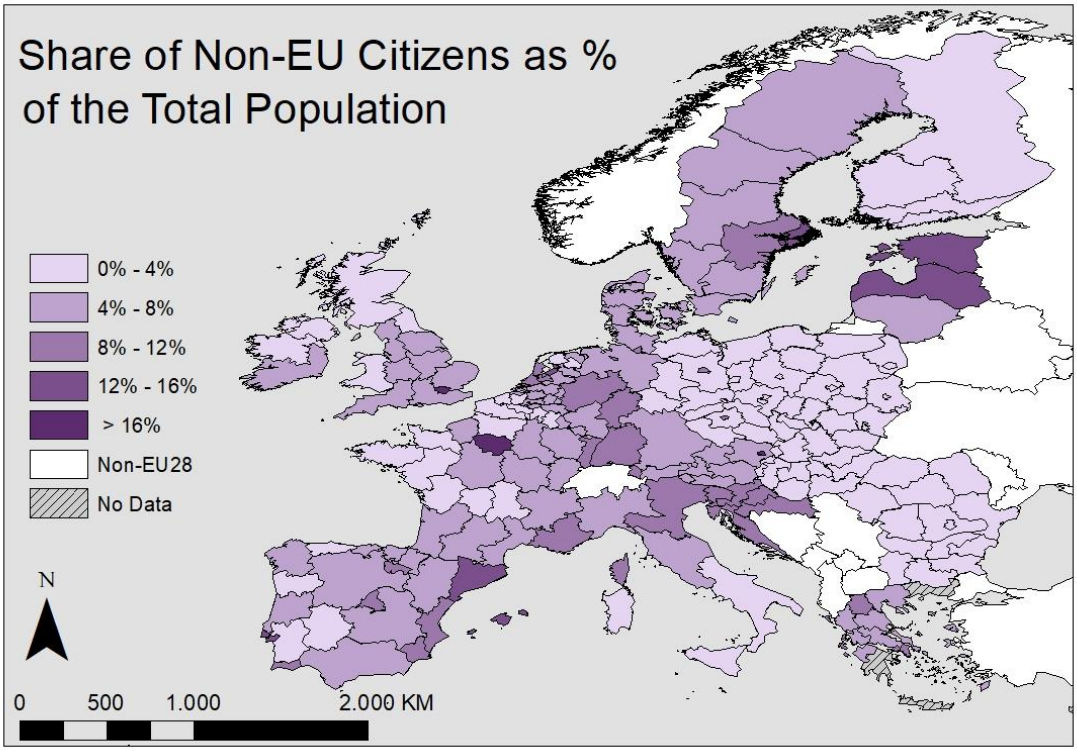
Map 14: Employment Growth Rate. The employment growth rate per NUTS2 region over the time period 2000 to 2014.



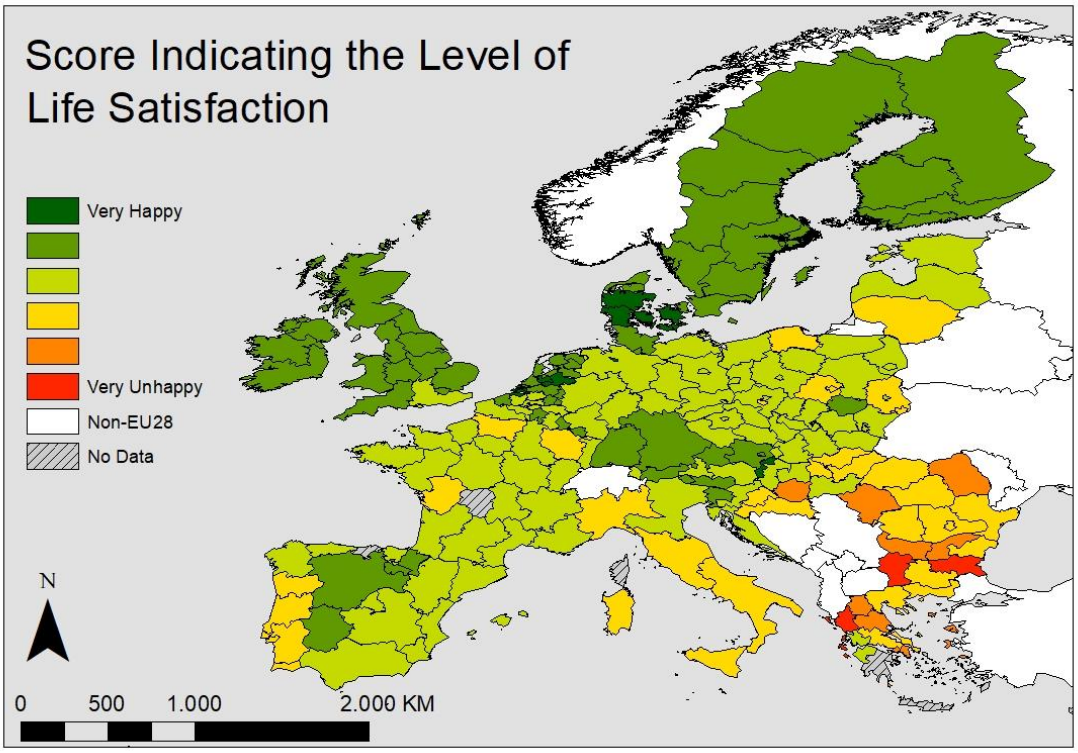
Map 15: Net Migration Rate. The average annual migration rate between 2000 and 2016 per NUTS2 region.



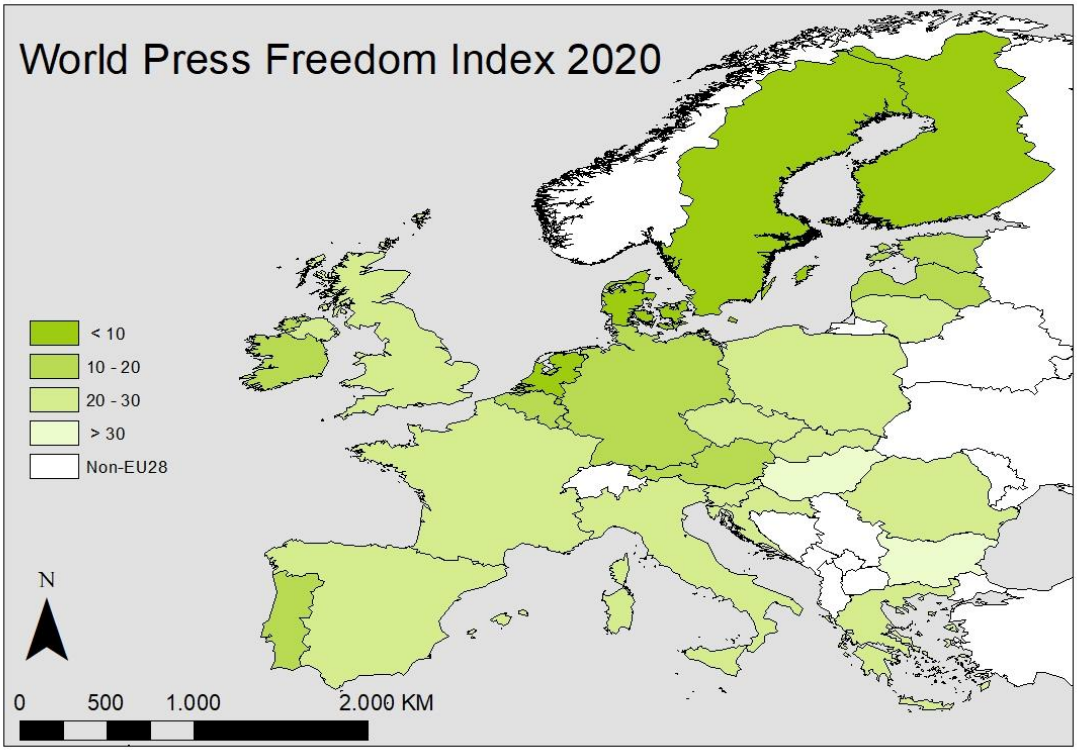
Map 16: Population Growth Rate. The average annual population Growth rate between 2000 and 2016 per NUTS2 region.



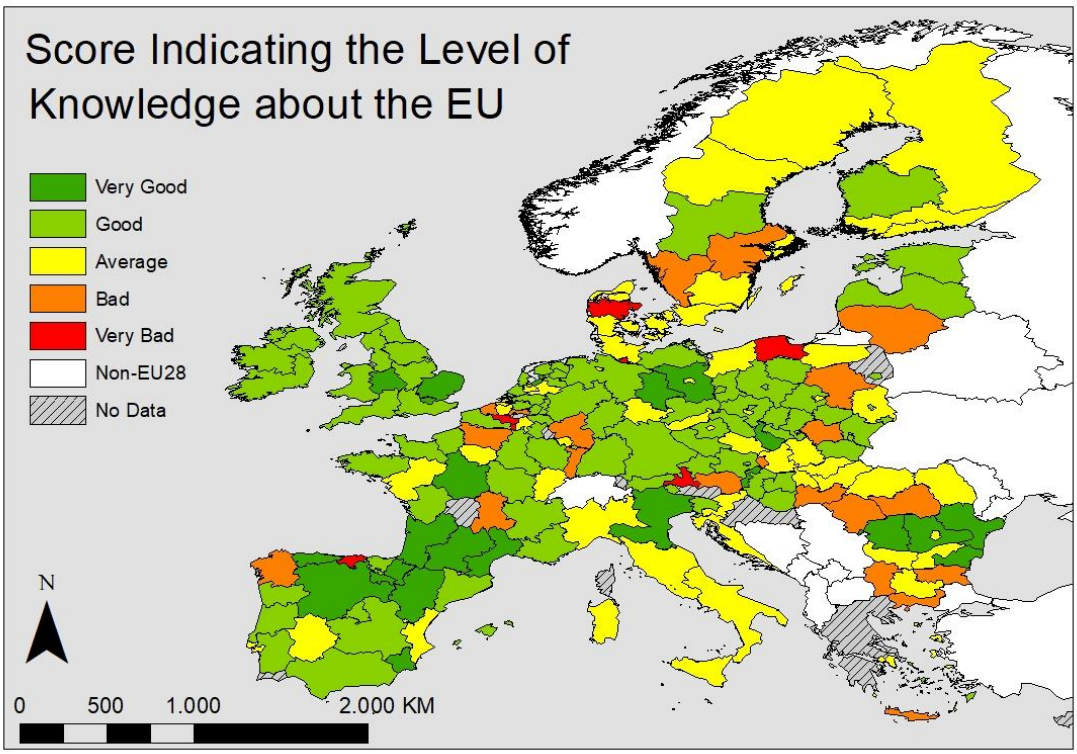
Map 17: Non-EU Citizens. Share of the total population that is non-EU.



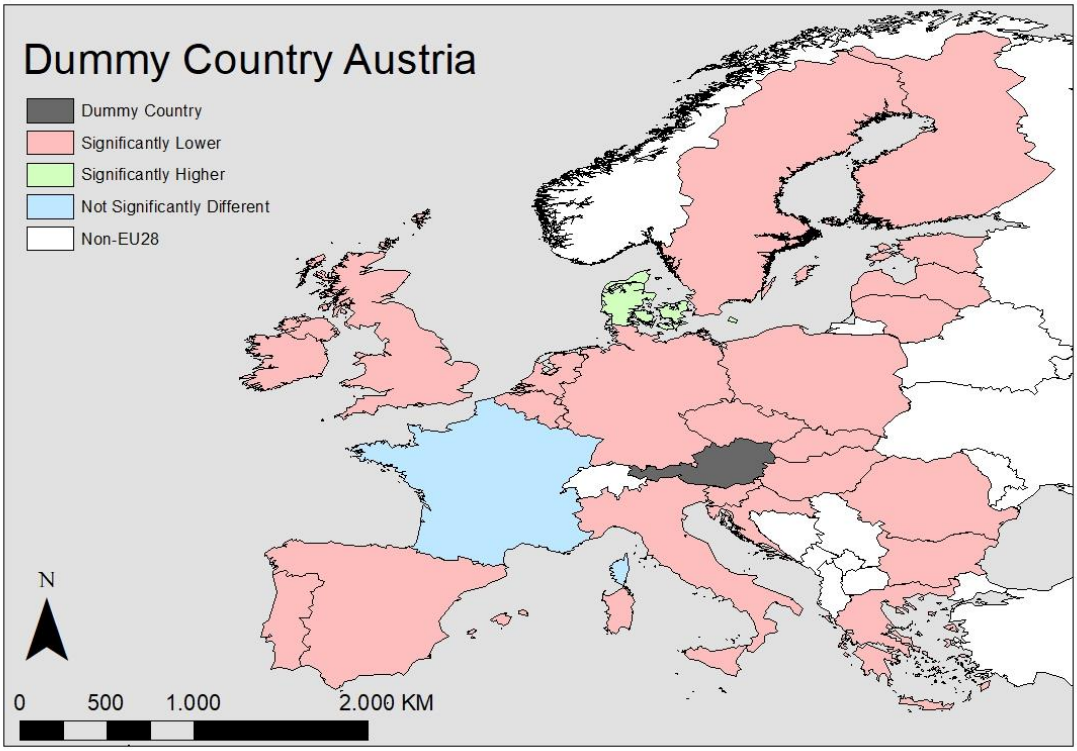
Map 18: Life Satisfaction. A score indicating the life satisfaction per region.



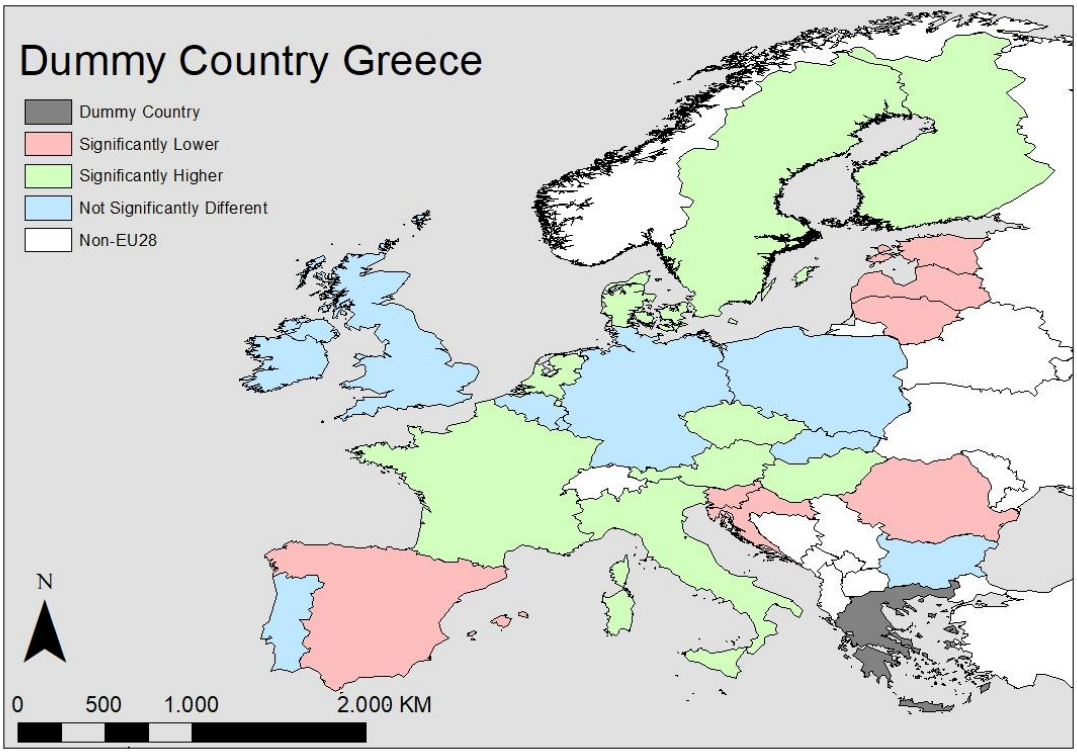
Map 19: World Press Freedom Index. An index indicating the freedom of the press per country.



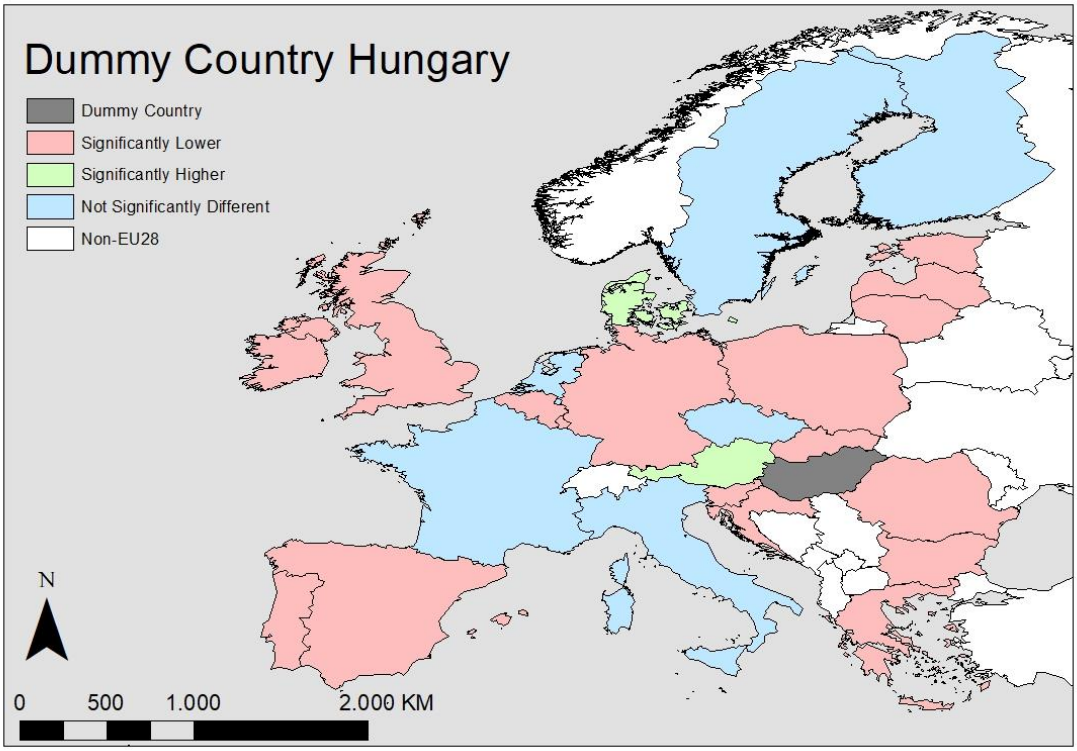
Map 20: A score indicating the level of knowledge a region has about how the EU functions.



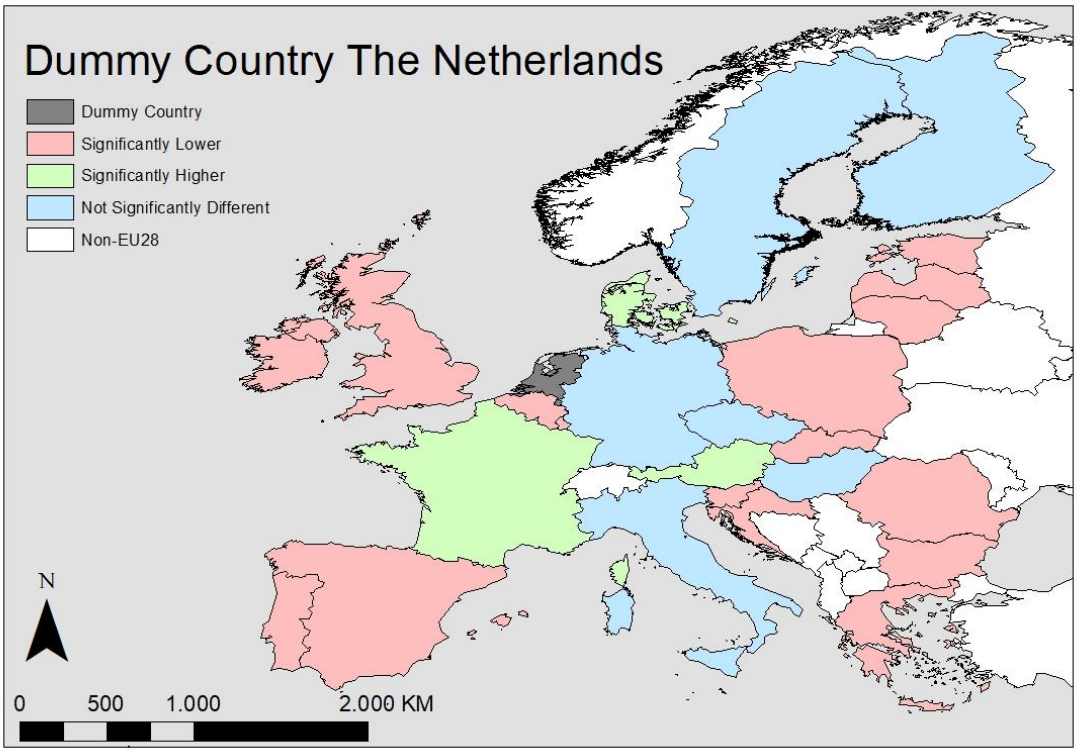
Map 21: Country comparison with Austria as dummy country.



Map 22: Country comparison with Greece as dummy country.



Map 23: Country comparison with Hungary as dummy country.



Map 24: Country comparison with the Netherlands as dummy country.