Erasmus University Rotterdam

Erasmus School of Economics

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Migration and supranational trust: The relationship between an influx of migrants and trust in the European Parliament

Abstract

The European Union witnessed a refugee crisis in 2016 and saw how the influx of more than 1 million migrants led to a divergence between the countries in the European Union. This solution of the crisis laid in cooperation between the member states and thus a strong European Union was needed and with it, its institutions. In this paper, the relationship between the influx of migrants and trust in the European Parliament, one of the most important EU institutions, is researched. By using country-fixed effects and a set of control variables on the individual level and on the country level, the relationship was determined. I find that there seems to be a negative relationship between the influx of migrants and trust in the EP, with a decline in trust in the EP of 0.023 on a scale of 0-10 per extra immigrant per 1000 inhabitants.

Name: Job Peeters

Student ID number: 455312

Supervisor: Suzanne Bijkerk

Second assessor: Dana Sisak

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Introduction

Europe is at risk of a new refugee crisis, as Erdogan declared that Turkey will no longer block refugees from entering Europe (Koc, Hacaoglu & Chrysoloras, 2020). A new influx of refugees is likely to lead to even more problems across Europe. Europe will need its leaders to come together and find a common solution for this problem, as this is not the first time they witnessed a crisis that was about migrants. In 2015 and 2016, the European Union already saw an unprecedented influx of migrants, with over 1 million refugees fleeing to member states of the European Union (EU), most of them from Syria (European Commission, 2017). To handle the situation, the member states of the EU came together and agreed on which measures had to be taken. On the one hand they will try to tackle the root of the cause, and one the other hand they will increase the humanitarian aid for refugees in and outside of the European Union. Furthermore, there is also discussion about the relocation of asylum seekers and a good distribution across European Union member states.

Trust in the EU in crisis

However, there is evidence that in times of crisis within the European Union, Eurosceptic parties in the member states witness a growth in their support. In the midst of a crisis, when cooperation on the European level is needed the most, we see that people lose trust in the European process. Ivaldi (2018) showed how in France the Front National, a right-wing Eurosceptic party, has made significant electoral gains since 2008, when the financial crisis started. Vasilopolou (2018) described that in Greece Eurosceptic parties gained power during the financial crisis. During the migration crisis, Hungary took a Eurosceptic stance in the handling of the crisis (Canveren & Durakçay, 2017). In the backdrop of the financial crisis, the 2014 election for the European Parliament (EP) saw the biggest increase in votes for Eurosceptic parties ever since 1979, when it was decided that the EP would be directly selected (Hobolt & de Vries, 2016). So, in times of crisis, either a financial one or one about migration, we see that within member states and even within EU institutions, Euroscepticism popularizes. The question rises whether this also was the case during the migration crisis of 2015 and if it will happen again if we will face a new crisis.

Loss of trust due to immigration

Considering that the threat of a new crisis is once again about the migration of culturally different groups, the following findings from earlier research are not promising. Hobolt et al. (2011) found that religious intolerance negatively affects people's attitudes towards the

European Union. Then it might be the case that an influx of migrants, who are from a religion that faces intolerance, could even further harm people's attitudes towards the EU, since the EU allowed these people to enter. De Vreese and Boomgaarden (2005) show how anti-immigration sentiments influence people's decision when taking a stance at European Union decisions. In that sense, another influx of immigrants could enlighten these sentiments, and thereby affecting in what way people see the European Union. Wike, Fetterolf and Fagan (2019) state that most Europeans do not approve of the way that the EU is dealing with the refugee issue, with the Netherlands being the only country where more than a third of the people support the way the EU is dealing with the issue. So the problem of immigration and the way the EU handles this problem might cause negative feelings towards the EU. Evans and Mellon (2019) find that a fear of immigration led to a rise of Euroscepticism in the UK, which eventually led to a Brexit. So the influx of immigrants in the past already led to the disintegration of the EU, while we will need a strong EU to be able to deal with a potential new migration crisis.

The need for trust in the European Union

As shown, Euroscepticism rises in periods of crisis and when migration is increasing, meaning that in these times, trust in the EU is much lower than normal. However, trust in the European Union within member states is essential for the EU to work. However, trust in the European Union has gone down considerably, as in 2016 35 per cent of European said to have trust in the European Union, compared to 50 per cent in 2004 (Schout & Holderied, 2018). Furthermore, the citizens of member states will have to feel like they benefit from their country being a member for the EU, in order for them to want to be a part of it. Fortunately, since 2016 almost every country in the EU witnessed an increase in the number of people who see the EU as favorable (Wike, Fetterolf & Fagan, 2019). So where trust went down until 2016, it is now increasing again. When trust in the EU is high and people feel like the EU is favorable, the EU strengthens and its powers increase. However, a decline in trust in the EU and its institutions can lead to a potential downfall of the European Union, as the Brexit is already an example of disintegration. Therefore, the question whether there is trust in the EU and its institutions is an important one.

My research

Therefore, in this paper I would like to research the relationship of immigration with the trust in the European Parliament in the member states, along the lines of the following research

question: *Does immigration into the European Union influence the trust of its citizens in European Parliament between 2008 and 2016?* By creating a regression with country-fixed effects I will try to control for the structural differences between states. Furthermore I will also add control variables to try to create an unbiased result.

In the next section, the related literature will be discussed and the hypotheses will be formed. In the third section the data will be described. In the fourth section, the methodology to answer the research question will be explained. The results of the regressions will be presented in section five. Section six will contain the conclusion.

Related literature

In order to establish an unbiased coefficient for the effect of the influx of refugees on trust in the EU institutions, it is important to find which other variables influence the trust in EU institutions. Armingeon and Ceka (2013) find that the trust of citizens of the member states in the EU mostly depends on their trust within their national institutions. Support for the EU is also derived from national politics and policies. They do find that this effect is weaker for citizens that are more knowledgeable of the EU. In this research, they controlled for the self-reported life satisfaction, which they said was crucial for their results. They do control for economic circumstances during the period of evaluation, but do not include immigration. Harteveld, Van der Meer and De Vries (2013) also find that the trust in national institutions can predict to an important degree citizens' trust within the European Union. However, they do report that this effect is independent from one's knowledge of the EU, which contradicts earlier findings. They also find that a strong European identity might lead to the neglect of rational arguments. This might increase trust in a way that is not rational, although the role of this European identity is inconsistent across EU citizens. However, once again, they do not use immigration as a control variable in this analysis.

Muñoz, Torcal and Bonet (2011) try to determine whether the relationship between trust in the national institutions is positively or negatively correlated to trust in the EU. They find that on the individual level, a person that is more trustful of national institutions is more trustful of EU institutions as well. However, on the national scale, they find that living in a country with highly-trusted and well-performing governments hinders trust in EU institutions. So the relationship seems to be positive on the individual level, but on the national level it seems to be negative. While again, the researchers do not control for immigration, they do find that

voters for the political right are less trustful of the EU. Since right-wing voting is often associated with a more negative view towards immigration, this gives space to the thought of immigration having a relationship with trust in the EU.

By now it has become clear that the trust in national governments is influencing people trust in the EU. Anderson (1998) provided an argument for this phenomenon. He said that since EU citizens know too little about the EU, and they make an assessment of EU institutions based on comparable institutions about which they do know a lot more, such as their national institutions. Anderson provides numbers displaying this lack of knowledge of EU citizens about the EU. Between 1992 and 1995 between 65% and 75% of the EU citizens felt uninformed about the EU. In the same period, only about 20 to 25 per cent of the people questioned was able to point to the Council as the most powerful EU institution.

However, it seems that the extent to which a government is well-performing is also important. Obydenkova and Arpino (2017) researched the relationship between corruption on the national level and trust in the national institutions, as well as in the EU. Corruption had a negative effect on trust in national institutions and the effect became even stronger during the crisis. On the EU-level, they found that corruption in domestic governments lead to more trust in the EU. However, this effect disappeared after the start of the financial crisis. Arnold, Sapir and Zapryanova (2012) come to a similar conclusion, when stating that people that live in a country with low levels of corruption and high decision-making power in the European Union are less likely to have trust in the EU than people that live in a country with high levels of corruption and fewer decision-making power in the EU. However, they also find that socio-economic status of someone is correlated with the level of trust in the EU. In this research, there is no control variable for integration, however, once again, whether someone is politically right or left is included as a control variable.

Roth, Nowak-Lehmann and Otter (2013) also link trust in the EU to economic indicators. They first of all find that the crisis affected trust in the EU negatively and that this was driven by countries that were part of the Eurozone. The peripheral countries in Europe, that were hit the hardest by the crisis, saw a significant decline in trust within the European Union. But more importantly, they conclude that this effect was caused by rising unemployment rates. Algan, Guriev, Papaioannou and Passari (2017) also find that countries that were the hardest hit by the financial crisis see the biggest decrease in trust in the EU, and also find a negative correlation between unemployment and trust in the EU.

Support for the EU

Very close to trust in the EU lies the concept of support for the European Union and the European Project. Anderson (1998) listed a number of variables that affected people's support for the EU. First of all, support for the European Union is closely related to the business cycle. In periods of economic growth and low unemployment rates, people are supporting the EU to a larger extent than in periods of economic decline or higher unemployment rates. Secondly, Anderson states that support for the EU is associated with personal benefits or cost believed to be caused by being a part of the EU. This utility maximalization theory finds a positive relationship between benefits on the individual and national level and support for the EU. Sanchez-Cuenca (2000) contradicts this belief and argues that the EU is seen as the solution for states that face corruption and a weak state. The EU is in this view seen as propagator of democratic principles and welfare policies. So, the EU should have more support in countries that lack those democratic principles and welfare policies. McLaren (2003) adds another dimension to the discussion about support for the European Union. She states that support for the European Project suffers from perceived threats from other cultures. Citizens in the member states are fearful or sometimes even hostile towards other cultures, and the European Union bring those people from other cultures closer to their homes. This would imply that support for the European Union should suffer from influxes of migrants. McLaren continues by saying that the European also has a lack of support due to it taking away the feeling of a national identity. 'Some individuals are more concerned about national degradation than others', she argues. The European Union is seen by these individuals not only as an economic entity, but also as a policy-making entity which is linked to immigration and globalization, and therefore these individuals see the EU as harmful and are not likely to support it.

De Vreese and Boomgaarden (2005) followed up on McLaren's work by researching the influence of these anti-immigration sentiments in EU referendums. Whereas earlier research found that it was mainly the role of national institutions played a role to determine trust in the EU, De Vreese and Boomgaarden found that anti-immigration sentiments play as big of a role as economic consequences of the EU and the role of national institutions. This even to the extent that the relationship between trust in the national institutions and trust in the EU institutions was as big as the relationship between anti-immigration sentiments and trust in the EU institutions.

Nelsen, Guth and Fraser (2001) find a completely different variable that might influence support over time, being religion. They find that Catholics show more support for the EU than the Protestants, and that the devout in both groups show more support than the 'normal adherents'. From this they conclude that as religion is becoming less powerful as a social and political force, this might lead to a loss of support for the EU. However, the role of immigration is not discussed in this article.

Hypotheses

Now that we know there are many other factors which determine trust in and support for the European Union, I can formulate a hypotheses about the effect of migration on the trust in the European Parliament. The related literature on support for the European Union hereby serves as a proxy for trust in the European Union, so findings on that topic are seen as evenly influential. I expect to find a negative relationship between immigration and trust in the European Parliament, based on the theory of McLaren and the results found by De Vreese and Boomgaarden (2005). This means that β_1 in the regressions will be negative.

In the table below there is an overview of the relationship between variables which are used in earlier research and trust in the European Parliament/European Union. For some variables, the sign of the relationship seems to be undisputed. For these variables, which I will use as control variables, I expect to find the same 'sign' of the relationship (positive or negative). This means that I expect to find a positive coefficient for trust in national parliament, a positive coefficient for life satisfaction, a negative coefficient for age, a negative coefficient for corruption and a negative coefficient for unemployment. Since there seems to be also more evidence that education has a positive relationship than a negative relationship with trust in the EU/EP, I also expect to find a positive coefficient for education. Lastly, for the relationship between sex and trust in the EU/EP and the relationship between whether someone is politically left or right and trust in the EU/EP, there seems to be contradicting evidence. Therefore, I cannot expect the coefficient to either be negative or positive, so no expectation will be formed on these two variables.

Table 1: An overview of the relationship between variables used in earlier research and trust in the European Union/European Parliament. '+' represents a positive relationship, while '-' represents a negative relationship.

Variable	Relationship with trust in the EP/EU	Source

Immigration	-	McLaren (2003); De Vreese and Boomgaarden (2005)
Trust in national government	+	Armingeon, K., & Ceka, B. (2014); Harteveld, E., Meer, T. V. D., & Vries, C. E. D. (2013), Muñoz, J., Torcal, M., & Bonet, E. (2011); Arnold, Sapir and Zapryanova (2012); Anderson (1998)
Life satisfaction	+	Armingeon, K., & Ceka, B. (2014); Arnold, Sapir and Zapryanova (2012)
Sex (male = 0, female = 1)	+	Armingeon, K., & Ceka, B. (2014); Harteveld, E., Meer, T. V. D., & Vries, C. E. D. (2013); Muñoz, J., Torcal, M., & Bonet, E. (2011); Obydenkova, A. V., & Arpino, B. (2018)
Sex (male = 0, female = 1)	-	Arnold, Sapir and Zapryanova (2012); De Vreese and Boomgaarden (2005)
Age	-	Armingeon, K., & Ceka, B. (2014); Harteveld, E., Meer, T. V. D., & Vries, C. E. D. (2013); Obydenkova, A. V., & Arpino, B. (2018); Arnold, Sapir and Zapryanova (2012)
Education	+	Armingeon, K., & Ceka, B. (2014); Harteveld, E., Meer, T. V. D., & Vries, C. E. D. (2013); Obydenkova, A. V., & Arpino, B. (2018); Arnold, Sapir and Zapryanova (2012); De Vreese and Boomgaarden (2005)
Education	-	Muñoz, J., Torcal, M., & Bonet, E. (2011)
Politically left or right (left = 1, right = 10)	+	Armingeon, K., & Ceka, B. (2014); Muñoz, J., Torcal, M., & Bonet, E. (2011) (altough they find a negative relationship when the variable is squared)
Politically left or right (left = 1, right = 10)	-	Obydenkova, A. V., & Arpino, B. (2018)

Politically left or right (left = 1, right = 10)	No (clear) relationship	Arnold, Sapir and Zapryanova (2012); De Vreese and Boomgaarden (2005)
Corruption	-	Harteveld, E., Meer, T. V. D., & Vries, C. E. D. (2013); Obydenkova, A. V., & Arpino, B. (2018)
Unemployment	-	Roth, Nowak-Lehmann and Otter (2013); Algan, Guriev, Papaioannou and Passari (2017); Anderson (1998)

Data

In this section I will describe the dataset which was used to conduct analysis on the influence of migration on trust in the European Union. It contains 188,420 observations over the years 2008-2016 per two year period, so in 5 'waves'. Every observations stands for an individual that was part of a face-to-face interview. The observations were made in 23 countries being, Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and the United Kingdom. All of these 23 countries were a member state of the European Union during the time of the observations, including the United Kingdom, as the 'Brexit' happened just in 2020 and the UK only gave formal notice of the idea of a Brexit in 2017. Five countries that were part of the EU in this period are excluded. Croatia joined the European Union in 2013 and since there is only data available up to 2010, they are excluded. Romania, Malta and Latvia were not included in the ESS-dataset, which will be described later, and are therefore not taken into account in this essay. Lastly, for Luxembourg there was only data in the ESS-dataset until 2004, but not for the period of interest in this essay. Therefore they are the final country that was excluded from analysis. Furthermore, some countries do only have data for certain years since some countries were left out of certain ESS-rounds. Table A in the Appendix shows the availability of data per country. Table B in the Appendix provides an overview of the source of data for every variable.

Next to the ESS-dataset, two more sources were used for this paper. These sources will be described first in this section. Second, the independent variable will be described and thereafter the dependent variable will be described. Lastly, the control variables will be mentioned.

Data sources

For this paper, a dataset was created that contained data from the European Social Survey, Eurostat and Transparency International. I will describe each of them hereafter.

The ESS

The European Social Survey (ESS) 'is an academically driven cross-national survey that has been conducted across Europe since its establishment in 2001' (European Social Survey, n.d.). The ESS conducts face-to-face interviews with newly-selected individuals every two years, which they call an ESS-round. As its name implies, it is focused on the inhabitants of the European countries. The questionnaires contain questions focused on people's attitudes, believes and behavior patterns. The ESS makes sure that their sample is representative for all people aged 15 and older, with no upper limit. The individuals are selected strictly random at every stage. They aim to have over 1500 individuals per country taking part in the questionnaire, except when a country has less than 2 million inhabitants, in which case the ESS aims to have over 800 people taking part in the questionnaire (European Social Survey, n.d.). For this paper, the ESS provided data on the dependent variable and almost all control variables.

Eurostat

Eurostat is the statistical office of the European Union. Its aim is to provide high quality statistics for Europe. It offers a 'whole range of important an interesting data' (Eurostat, n.d.). For this specific paper, two datasets from Eurostat were used. The first one was on the influx of migrants over the years and the second one was on the population sizes of the countries in Europe. Both these datasets combined eventually formed the independent variable in this paper. Furthermore, it also provided the data for the unemployment variable.

Transparency International

Transparency International is an organization aimed at ending corruption in over 100 countries in the world. Their Corruption Perceptions Index (CPI) measures levels of corruption in the public sector in 180 countries (Transparency International, 2018). It is based on a scale of 0 to 100, where 0 means highly corrupt and 100 means very clean. The CPI is created with the help of experts from the business and public sector. The CPI is described as follows: 'It is a composite index, a combination of 13 surveys and assessments of corruption, collected by a variety of reputable institutions. The CPI is the most widely used indicator of

corruption worldwide' (Transparency International, 2018). For this paper, the CPI provided data on corruption in the EU. This corruption-variable will be used as a control variable at first, but later on it will be used as an intersecting-variable with our independent variable.

Descriptive statistics

First the descriptive statistics will be presented. The table below shows the descriptive statistics for the dependent, independent and control variables.

Table 2: An overview of the descriptive statistics of all variables. Trust in the EP will serve as the dependent variable in this paper, while immigrants per 1000 inhabitants will be the independent variable of interest.

	Observations	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
Trust in the EP	173,417	4.35	2.48	0	10
Immigrants per 1000 inhabitants	167,788	7.86	4.67	0.401	27.128
Trust in national parliament	171,912	4.20	2.57	0	10
Left-Right Scale	153,416	5.09	2.20	0	10
Life satisfaction	172,857	6.88	2.24	0	10
Happy	172,616	7.23	1.96	0	10
Gender	173,353	0.53	0.50	0	1
Age	173,003	48.66	18.30	14	123
Educational Years	171,887	12.76	4.03	0	54
Unemployment	145,746	8.99	4.04	3.7	24.8
Corruption	87,459	69.28	13.73	33	90

Immigrants per 1000 inhabitants, unemployment and corruption are the variables that are on the country-level, so these do only differ between countries, not within. All other variables are on the individual-level, so they differ among each observation. Trust in the EP is the dependent variable. Immigrants per 1000 inhabitants is the independent variable of interest. All the other variables serve as control variables in further regressions. The number of observations, the mean, standard deviation, minimum and maximum can all be found here. The variables are explained in larger detail in the following subsections.

The dependent variable

The dependent variable is this analysis is trust in the European Parliament. Is it the only institution that is directly elected by the European citizens and therefore the closest to them. The participants in that took part in the ESS-rounds were asked the following question: *please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0*

means you do not trust an institution at all, and 10 means you have complete trust. Firstly... ...*the European Parliament?* Participants were able to answer on the scale of 0-10, answer that they 'don't know' or refuse to answer the question. Some also did not give an answer. 15,003 people did not know the answer, refused to answer or simply did not answer. Those were dropped. Of the remaining 173,417 observations, the mean was 4.35, with a standard error of 0.0060. The frequency of every answer can be found in Table C in the Appendix. The answer most given to the question was '5', with over 20% of the observations displaying that answer. The mean answer to the question over the years shows no particular trend: in 2008, the mean answer was 4.64, in 2010 4.28, in 2012 4.30, in 2014 4.19 and in 2016 4.37. The mean declines at first, but in 2016, the mean started increasing again.

The independent variable

The independent variable in this analysis is the influx of immigrants into an EU member state. For the variable, two datasets from Eurostat were used. One of the datasets showed the influx of immigrants per EU member state per year and the other one the population sizes of the EU member states per year. By dividing the amount of immigrants per year by the population size, you get the influx of immigrants per capita. Since this number is so small, it was multiplied by a thousand, to get the influx of migrants per 1000 inhabitants. For Belgium, the number of immigrants was missing for 2008 and for Bulgaria, it was missing for 2008 and 2010. These are the only missing observations in our database. Therefore they were dropped, leaving us with 167,788 observations. The mean of this *migration*-variable is 7.86, meaning that on average, an EU member state had 7.86 immigrants per 1000 inhabitants each year. Cyprus had the highest average influx of immigrants, with a mean of 24.07. Slovakia had the lowest average influx of immigrants, with a mean of 1.20. Table D in the Appendix shows the means for all countries. The minimum of immigrants in a year over the total period was 0.401, meaning that there was less than 0 immigrant per 1000 inhabitants in that country that year. The maximum is 27.128

Control variables

To make sure the result of the eventual regression is less biased, control variables will be included. *Trust_Domestic* will show whether a person has trust or not in his or her national parliament. From the related literature we learned that a person's trust in national institutions very often determines whether one trusts the supranational institutions of the EU. Therefore, it is likely that trust in the national parliament has a relationship with trust in the European

Parliament. It works on a scale of 0 to 10, with 0 being no trust at all and 10 being complete trust. *Left_Right_Scale* shows whether a person is more politically left or right. As right-wing voters are often more opposed to immigration, this might affect their trust in the European Parliament. A score of 0 means that a person thinks of himself as very left and a score of 10 represents the person thinking that they are very right. Lastly, some control variables were used which are more personal, being *Life_Satisfaction* (showing how satisfied someone is with his or her personal life), *Happy* (whether a person is happy or not), *Gender, Age* and *Educational_Years* (showing how many years of education one has attained). *Life_Satisfaction* and *Happy* also work on a scale from 0 to 10, which 0 being completely dissatisfied/unhappy and 10 being completely satisfied/happy. *Gender* is a dummy variable that is 0 if the person is male and 1 if the person is female. *Educational_Years* will be used as a proxy for a person's educational level. Since the level of education differs across the member states, it is hard to capture someone's educational level in a variable. This is not the case for educational years. Therefore, educational years will be used. All the presented control variables are on the individual level. However, *Unemployment*, will control for different levels of unemployment in the countries over the years. Related literature has suggested that it has a relationship with trust in the European Parliament, and therefore it is added. *Unemployment* represents the percentage of unemployment in a country in a specific year.

A special control variable is *Corruption*. Since data on corruption scores was only available from 2012 and onwards, the regressions containing this control variable do only contain observations from 2012 and later. An important thing to keep in mind is that a high score for the variable *Corruption* is actually good, as it means that a government is 'very clean' instead of 'highly corrupt'. *Corruption* works on a scale of 0 to 100.

Almost all the presented control variables have been presented in the related literature section. Either earlier research has shown that it affected trust in the EP or the variable was used as a control variable in earlier research, except for *Happy*. Kaliterna-Lipovčan and Prizmić-Larsen (2016) have shown that people who report that they are happy tend to have higher trust in others and in institutions. So they are likely to have more trust in the European Parliament than unhappy people and therefore happy is included as a control variable in this paper.

Methodology

To answer the main question in this paper, the data as described in the previous chapter will be analyzed. In this section, I will describe step-by-step the regressions I will perform in order to get the answer, and why I choose to do so.

To get to know the direct relationship between the influx of migrants and the trust in the European Parliament, a basic OLS-regression will be used, which is shown below:

$$Y_{ict} = \alpha + \beta_1 * X_{ct} + \varepsilon$$

In this OLS-regression, Y_{ict} is the trust in the European Parliament of individual *i*, in country *c* and in year *t*. X_{ct} is the immigrants per 1000 inhabitants in country *c* and in year *t*. α is the constant and ε is the error term. This regression will give a direct relationship between the dependent variable and the independent variable of interest. However, the coefficient will be largely biased. To start off, there are no control variables in this regression. These variables will be included to unbiased the coefficient β_1. After adding those in, the regression will look as follows:

$$Y_{ict} = \alpha + \beta_1 * X_{ct} + \beta_2 * V_{ict} + \beta_3 * U_{ct} + \varepsilon$$

Once again, Y_{ict} is the trust in the European Parliament of individual *i*, in country *c* and in year *t*. X_{ct} is the immigrants per 1000 inhabitants in country *c* and in year. α is the constant and ε is the error term. However, V_{ict} is added, which represents a set of control variables for individual *i* in country *c* in year *t*. These control variables are described in the data section of this chapter. U_{ct} is also added, which represents the percentage of unemployment in country *c* in year *t*. This set of control variables contains all the control variables except for corruption, which will be added later since it limits the regression to observations from 2012 and later.

However, some countries may just be more anti-migration and Eurosceptic than others. To control for this time-invariant differences across countries, country-fixed effects will need to be included. These control for differences across countries that are structural, i.e. differences across countries that do not vary over time. To implement these fixed effects, a dummy variable will be used for every country, except the first alphabetical country in the dataset, being Austria. After including those country-fixed effects, the regression will look like this:

$$Y_{ict} = \alpha + \beta_1 * X_{ct} + \beta_2 * V_{ict} + \beta_3 * U_{ct} + \beta_4 * W_c + \varepsilon$$

Now W_c is added, which represents the country fixed effects. The values of the coefficients from the country-fixed effects are likely biased, but they are not to be interpreted; they will take away bias from the coefficient of the variable of interest, being β_1.

Year-fixed effects are not included in the regression. They could control for differences per year in trust in the European Parliament that are not controlled for by the control variables. However, they also take away a lot of the influence that immigration might have on the trust in the European Parliament. Therefore, they are excluded.

Lastly, a regression will be used that contains the control variable for corruption. Since the related literature showed that corruption in national governments seemed to play a role in trust in the European Parliament, the addition of this control variable will check whether this is true for this dataset as well. This corruption-variable will be added to the regression with control variables but without country-fixed effects and the final regression with control variables and country-fixed effects. Since these regressions will only capture the observations from 2012 and onwards, a regression will be ran which is the same as the basic OLS-regression as described in the first part of the methodology, but only using observations from 2012 and onwards. With this, I control for the possibility that the direct relationship between the dependent variable and the independent variable of interest has changed. The final regression will look as follows:

$$Y_{ict} = \alpha + \beta_1 * X_{ct} + \beta_2 * V_{ict} + \beta_3 * U_{ct} + \beta_4 * W_c + \beta_5 * Z_{ct} + \varepsilon$$

Here, Z_{ct} represents the control variable corruption in country *c* and year *t*. It is important to keep in mind that a high score for *Corruption* is positive for a country. It means that the country is transparent and 'highly clean'. Lower scores do mean that a country is more corrupt. By extending the regression every time, the coefficient of immigration (β_1) will become more and more unbiased, and we will be able to see it happening.

Results

After running all the regression as mentioned in the previous section, I will now present the results of them. First, the basic OLS-regression will be talked about, after which the regression with the control variables will be mentioned. Then the regression with country-fixed effects will be discussed. Hereafter I will explain what the adding of the control variable *Corruption* led to, and I will discuss the regressions in the same order. Before the results are discussed, I will first present an overview of them in the table below.

*Table 3: A representation of all the coefficients for all models. The standard errors are displayed in brackets. ***, **, * denote statistically significant effects at a 1%, 5% and 10% level respectively.*

	(1)	(2)	(3)	(4)	(5)	(6)
Immigrants per 1000 inhabitants	0.020*** (0.001)	-0.022*** (0.001)	-0.026*** (0.003)	0.020*** (0.002)	-0.008*** (0.002)	-0.023*** (0.005)
Trust national parliament		0.544*** (0.002)	0.571*** (0.002)		0.566*** (0.003)	0.579*** (0.003)
Left-Right scale		0.014*** (0.003)	0.005* (0.003)		0.0005 (0.003)	-0.009*** (0.003)
Life satisfaction		0.020*** (0.004)	0.046*** (0.004)		0.028*** (0.005)	0.050*** (0.005)
Happy		0.018*** (0.004)	0.025*** (0.004)		0.014** (0.006)	0.017*** (0.006)
Gender		0.232*** (0.010)	0.222*** (0.010)		0.250*** (0.013)	0.244*** (0.013)
Age		-0.014*** (0.000)	-0.013*** (0.000)		-0.013*** (0.000)	-0.013*** (0.000)
Educational Years		0.002 (0.001)	0.0004 (0.001)		0.007*** (0.002)	0.0004 (0.002)
Unemployment		0.034*** (0.001)	-0.034*** (0.003)		0.029*** (0.002)	0.0003 (0.006)
Corruption					-0.019*** (0.001)	0.003*** (0.001)
Constant	4.322*** (0.022)	2.285*** (0.043)	1.449*** (0.074)	4.236*** (0.030)	3.237*** (0.066)	1.003*** (0.146)
Number of observations	145,746	145,746	145,746	88,544	87,459	87,459
R-squared	0.0114	0.3416	0.3756	0.0124	0.3517	0.3815
Country-fixed effects	No	No	Yes	No	No	Yes
Observations from years	All years	All years	All years	2012 and later	2012 and later	2012 and later

Basic Regression

In the basic regression, the independent variable was immigrants per 1000 inhabitants. The coefficient of migration was 0.02, with a p-value of 0.000, meaning that the found coefficient was strongly significant. The coefficient of 0.02 means that an increase of 1 immigrant per 1000 inhabitants leads to an increase in trust in the European Parliament of 0.02 on a scale of 0 to 10. The constant was 4.322, with a p-value of 0.000 as well, meaning that it was also strongly significant. In the basic regression, there seems to be a positive relation between immigration and trust in the European Parliament

Addition of control variables

With the addition of the control variables, the coefficient of immigration changed. Where it displayed a positive relationship with trust in the EP in the basic regression, the coefficient has now become negative. The coefficient is -0.022 and has a p-value of 0.000, so it is significant. The interesting part is of course that the 'sign' of the coefficient has flipped after the introduction of the control variables. Based on this regression, there seems to be a negative relationship between immigration and trust in the EP. The constant is 2.285, and once again had a p-value of 0.000. Almost all control variables had significant coefficients, except for *Educational_Years*. The coefficients of all the control variables can be found in table 3 above.

Addition of Country-fixed effects

The addition of country-fixed effects caused the coefficient of immigration to change once again. By controlling for time-invariant differences between the EU member states, the coefficient of immigration became insignificant. The coefficient is -0.026 and strongly significant, once again displaying a negative relationship between immigration and trust in the EP. *Left_Right_Scale* also saw its significance drop and *Educational Years* was still highly insignificant, where the other control variables remained significant. The dummy variables for all countries were highly significant. The coefficients for the variable of interest and control variables can be found in table 3 earlier in this chapter. The coefficients and their significance per country can be found in the Appendix in table E.

Basic regression from 2012 and onwards

From here on, only observations from 2012 and onwards are used, since data on corruption was only available since then. To compare the coefficient of immigration in the new regression, the basic regression was ran with only observations from 2012 and onwards. The coefficient of immigration was positive, being 0.02 and highly significant. The constant was 4.236, with a p-value of 0.000. The difference between the first basic regression and this one is very small. The coefficient of the immigration remains the same, when rounding up to 3 digits behind the dot. The constant has dropped a tiny bit, but this is neglectable. What is notable, is that the coefficient in both of the basic regressions is positive, while in the others it is all negative.

Control variables, including corruption

In the regression with control variables, including corruption, the coefficient of immigration is negative again, being -0.008 and highly significant. Compared to the second regression, the coefficient of migration is much smaller, as it was -0.022 in the second regression. With regard to the control variables, it stands out that *Left-Right Scale* is insignificant, which it was not in the second regression and that *Educational Years* is highly significant, which it also was not in the second regression. The constant was 3.237 and significant The coefficients of the control variables can be found in table 3, earlier in this section.

Country fixed effects and all control variables

The final regression contained all the control variables and country-fixed effects. The variable of interest, immigration per 1000 inhabitants, has a coefficient of -0.023 and was highly significant. *Educational Years* and *Unemployment* were insignificant, while *Left-Right Scale* was significant again. The variable for Germany was the only year-dummy that was insignificant. The constant was 1.003 and also highly significant with a p-value of 0.000. The coefficients of all the control variables can be found in the table 3, earlier in this chapter. The coefficients for all the countries can be found in the Appendix, in table E.

The control variables

With regard to the control variables, it is safe to say that trust in the national parliament had a positive relationship with trust in the EU/EP. It was positive and significant in all the regressions. The same can be said for life satisfaction and the variable *Happy*. Gender was also positive and significant in all regressions, which leads to the conclusion that in the mean, women have more trust in the EP. Age showed a negative relationship in all the regressions. *Left-Right Scale*, *Corruption* and *Unemployment* share the fact that they all showed a negative and a positive relationship in one of the regressions, meaning that it is hard to determine whether the sign is negative or positive. *Educational Years* was largely insignificant and only showed a significant result in regression 5, which leads me to the conclusion that it barely showed any relationship in this dataset.

Conclusion

This paper aimed at answering the question whether the influx of migrants influenced the trust in the European Parliament. After running several regressions, including control variables and country-fixed effects, I have now got the appropriate results to answer this question.

The results show a negative relationship. Despite the fact that both the basic regressions show a positive relationship between the two variables, all the other four showed significant negative relationships between the two variables. Since the explanatory power of the basic regressions is that much lower, these results do not have the same importance as the results from the regressions with control variables and country-fixed effects, where the models show more explanatory power (a higher R-squared). The strength of the relationship is hard to determine. Where model 5 showed a negative coefficient of 'only' 0.008, model 3 showed a coefficient of 0.026. The model with the highest R-squared, model 6, showed a coefficient of -0.023, meaning that an increase of 1 immigrant per 1000 inhabitants in the mean would lead to a decrease in trust in the European Parliament of 0.023 points on a scale of 0-10. This negative result is in line with the hypotheses drafted in the related literature section.

Table 4: A representation of the expected sign of the coefficients of the variables and the sign it had in the regressions in this paper.

	Expected sign based on hypotheses	**Actual sign in data**
Immigration per 1000 inhabitants	-	-
Trust in national parliament	+	+
Left right scale	No expectation	Contradicting
Life satisfaction	+	+
Happy	No expectation	+
Gender	No expectation	+
Age	-	-
Educational Years	+	+, but often insignificant
Unemployment	-	Contradicting
Corruption	-	Contradicting

The hypotheses also mentioned the sign of the control variables. The table above shows the expected sign based on the hypotheses and the actual sign found in the data in this paper. For trust in the national parliament, there was a very clear positive relationship. All the models showed a clear positive relationship, and this was also expected. The relationship between Left-Right Scale and trust in the European Parliament was already contradicting, and in this paper, the relationship was also contradicting. The coefficient was both negative and positive in different models. For life satisfaction, I also found a positive relationship with trust in the European Parliament, as was expected. The variable *Happy* was not found in the related literature as a control variable for trust in the EP, but I introduced it since other literature showed that it might affect overall trust in people and institutions. It had a positive

relationship with trust in the EP. The sign of gender was also discussed in the related literature, but in this paper it showed a clear positive coefficient. Age showed a negative coefficient, which was expected based on the literature. For educational years, unemployment and corruption there was a clear expectation, but all three variables displayed either a largely insignificant coefficient or contradicting relationship, as it was sometimes positive and sometimes negative. Not all variables do meet the expectations, but the most important one, immigration per 1000 inhabitants, does.

We do need to keep in mind that this paper does only show a relationship, which might not be completely causal. Despite the efforts to lose the bias in the coefficient of the variable of interest, it is likely that there are still some variables which do affect this coefficient. The R-squared of model 6 is 0.3815, meaning that the model can only explain about 38% of the variance in the dependent variable. It is important to realize this when discussing what the findings of this paper do actually mean for the European Union and in times of higher migration. It might be concerning that one of the most important institutions of the EU, being the European Parliament, seem to lose the trust of European citizens in times of higher migration, but as said, evidence for this finding is not watertight, with a relatively low R-squared, and the relationship cannot be interpreted as causal. Therefore, one must be careful when drawing conclusions based on the findings of the paper. However, might this relationship be causal of nature, then there are some concerns for the near future, might there be a new refugee crisis. It would imply that this key European Union institution will lose its trust and with that, its power to act, weakening the integration of Europe in a time when the integration of Europe is just what is needed.

Therefore, it is important that trust in the EP increases among the people in the European Union. If so, it can act more powerfully in the occurrence of a new immigration crisis. Determinants of trust in the EP should be evaluated so policy makers could effectively create policy that increase this trust. The EU should work hard to sufficiently deal with the influx of migrants over the next couple years, so that the public perceives the EU as being competent enough to deal with these kinds of issues. This might lead to Europeans having more trust in the EU and its institutions, and it might lead to the negative relationship between immigration and trust in the EP becoming smaller or even disappearing.

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Appendix

Table A: For every country in the dataset, it is made clear for which years there is data available. Since ESS-rounds are taking place every two years, there is always a one year gap. Here, we can see that some countries do not have as many data available as others.

Countries	Available years
Austria	2016, 2018
Belgium	2008, 2010, 2012, 2014, 2016
Bulgaria	2008, 2010, 2012
Cyprus	2008, 2010, 2012
Czech Republic	2008, 2010, 2012, 2014
Denmark	2008, 2010, 2012, 2014
Estonia	2008, 2010, 2012, 2014, 2016
Finland	2008, 2010, 2012, 2014, 2016
France	2008, 2010, 2012, 2014, 2016
Germany	2008, 2010, 2012, 2014, 2016
Greece	2008, 2010
Hungary	2008, 2010, 2012, 2014, 2016
Ireland	2008, 2010, 2012, 2014, 2016
Italy	2012, 2016
Lithuania	2010, 2012, 2014, 2016
Netherlands	2008, 2010, 2012, 2014, 2016
Poland	2008, 2010, 2012, 2014, 2016
Portugal	2008, 2010, 2012, 2014, 2016
Slovakia	2008, 2010, 2012
Slovenia	2008, 2010, 2012, 2014, 2016
Spain	2008, 2010, 2012, 2014, 2016
Sweden	2008, 2010, 2012, 2014, 2016
United Kingdom	2008, 2010, 2012, 2014, 2016

Table B: An overview of the source of all variables.

Variable	Source
Immigration per 1000 inhabitants	Immigration: Eurostat Population size: Eurostat
Trust national parliament	ESS
Left-Right Scale	ESS
Life satisfaction	ESS
Happy	ESS
Gender	ESS
Age	ESS
Educational Years	ESS

Unemployment	Eurostat
Corruption	Transparency International

Table C: The table shows the frequency per answer that was answered to the following question: *please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly... ...the European Parliament?* Next to the frequency, the percentage of people that gave the specific answer is shown.

Answer	Frequency	Percent
0 (no trust at all)	17,916	10.33
1	9,754	5.62
2	14,484	8.35
3	18,856	10.87
4	19,732	11.38
5	36,042	20.78
6	21,122	12.18
7	18,195	10.49
8	11,580	6.68
9	3,536	2.04
10 (complete trust)	2,200	1.27

Table D: The average influx of immigrants per country over the period of 2008-2016. Cyprus has the highest average, Slovakia the lowest.

Country	Average immigrants
Austria	14.32
Belgium	11.52
Bulgaria	1.93
Cyprus	24.07
Czech Republic	5.22
Germany	8.84
Denmark	10.44
Estonia	4.32
Spain	8.78
Finland	5.65
France	5.05
United Kingdom	9.17
Greece	5.69
Hungary	4.15
Ireland	15.30
Italy	5.21
Lithuania	6.23
Netherlands	8.68
Poland	4.38
Portugal	2.30
Sweden	12.39
Slovenia	8.97
Slovakia	1.20

Table E: the coefficients found per country in the models with country-fixed effects. All countries are compared to Austria. Greece is omitted in model 6 since it does not have observations for the years 2012 and later. In brackets is the standard error. ****, **, * denote statistically significant effects at a 1%, 5% and 10% level respectively.*

	(3)	**(6)**
Belgium	1.195*** (0.040)	1.015*** (0.001)
Bulgaria	2.234*** (0.080)	2.182*** (0.099)
Cyprus	1.987*** (0.065)	1.614*** (0.106)
Czech Republic	0.927*** (0.049)	0.881*** (0.078)
Germany	0.226*** (0.063)	0.098 (0.069)
Denmark	0.411*** (0.044)	0.484*** (0.052)
Estonia	1.292*** (0.049)	1.082*** (0.059)
Spain	1.281*** (0.059)	0.719*** (0.112)
Finland	0.621*** (0.045)	0.475*** (0.056)
France	0.600*** (0.071)	0.358*** (0.084)
UK	-0.276*** (0.062)	-0.442*** (0.074)
Greece	0.963*** (0.054)	Omitted
Hungary	1.270*** (0.052)	1.167*** (0.070)
Ireland	1.593*** (0.044)	1.495*** (0.059)
Italy	1.276*** (0.080)	1.136*** (0.099)
Lithuania	2.318*** (0.050)	2.298*** (0.060)
Netherlands	0.554*** (0.043)	0.423*** (0.050)
Poland	1.213*** (0.063)	0.977*** (0.076)
Portugal	1.028*** (0.053)	0.670*** (0.080)
Sweden	0.316*** (0.040)	0.214*** (0.047)
Slovenia	1.125*** (0.047)	0.985*** (0.062)
Slovakia	1.433***	0.807***

	(0.056)	(0.089)