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The impact of the Great Recession on social preferences and attitudes in Europe

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Abstract

This paper analyzes the impact economic perceptions have on social preferences and whether this impact has changed during the course of the Great Recession. I begin by documenting the development social preferences and economic perceptions take during the period analyzed (2002-2014). In the crisis year almost all of these variables exhibit a decreasing trend. There have been evidences in the literature for a stark impact of economic perceptions on a multiplicity of attitudes. However, the analysis of the development of this impact during a recession represents a gap in the literature. My findings underline the powerful role economic perceptions play on three branches: Trust in policy, immigration and redistribution. During the Great Recession the impact of assessments of the economy did mostly stay stable, while economic self-assessments had a significantly increasing impact. Given the increased anxiety during times of economic turmoil, it is no surprise that the impact of economic self-assessments on social preferences and attitudes got intensified.

Abstracto

Esta tese analisa o impacto de percepções económicas em preferências sociais e se este impacto se alterou durante a Grande Recessão. Começo por documentar o desenvolvimento das preferências sociais e percepções económicas durante o período 2002-2014. Nos anos de crise, quase todas estas variáveis apresentam uma tendência de queda. Tem sido documentado na literatura que as percepções económicas têm um forte impacto numa miríade de atitudes. No entanto, o desenvolvimento deste impacto durante o recessão não foi, até agora, estudado. As minhas conclusões realçam a elevada importância das percepções económicas em três áreas: confiança em políticas, imigração e redistribuição. Durante a Grande Recessão, o impacto de percepções económicas sociotrópicas manteve-se relativamente estável, enquanto que percepções financeiras e económicas tiveram um impacto acrescido. Dada a crescente ansiedade durante períodos de incerteza económica, não é surpreendente que o impact de percepções económicas egocêntricas em preferências e atitudes sociais se tenha intensificado.

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1. Introduction

1.1 Research Question

Eight years after the outbreak of the Great Recession, the aftermath is still palpable in many European countries, including in the orientation of fiscal policy, in the behaviour of labour markets and in the dynamics of the political landscape. Moreover, the Great Recession seems to have had a lasting impact in people's perceptions regarding macroeconomic outcomes. This thesis aims at examining whether and to what extent social and political preferences of individuals are influenced by their perception regarding economic outcomes. In particular, I will analyze the attitudes towards redistribution, immigration, refugees and political institutions. Furthermore, I will explore if the Great Recession has changed the impact economic perceptions have on these attitudes.

Academic literature available on the topic investigates the impact of economic perceptions on the before described attitudes, but there has not been a paper focusing on bringing all these relationships together. Furthermore, the literature for the impact of the Great Recession on these relationships is not yet exhaustive; I will try to contribute to close this gap in scientific research. I use for this the European Social Survey dataset, which has seven biennial waves between 2002 and 2014 for over 30 European countries. This data set is very rich; in my regressions I have a sample size of 205,705. This enables me to provide a very detailed and precise analysis.

1.2 Outline

This paper is structured as follows: In the subsequent chapter I will give insight in the intellectual process underlying my motivation to do this thesis. In section 3 I will give a detailed overview of the analyzed variables, dependent and independent. Furthermore, I will present my econometrical approach on how to extract the impact of economic perceptions on the variables of interest. In section 4.1 I will give a detailed analysis of the results regarding the impact of economic perceptions on social preferences and attitudes and put these into relation with the existing literature. In section 4.2 I analyze whether and how these impacts changed in the course of the Great Recession. Since to the best of my knowledge, there is no literature on this topic yet, I have no references to compare these

results with. I will give concluding remarks in section 5.

2. Motivation

The existing literature is rich and diverse on the impact of economic perceptions on social preferences and attitudes. Most papers focus on the impact to one single attitude (Olivera (2015), Roth (2009), Stevenson & Wolfers (2011)), while I will recap these relationships and focus thereby only on economic perceptions, controlling for socioeconomic, country-, and time-fixed effects. The underlying data set is extensive and rich, which allows for a detailed research procedure yielding significant results. Furthermore, my motivation lies in recent developments concerning the atmosphere of public discussion, as well as the political change palpable in Europe.

In many countries in Europe radical both left- and right wing movements gain an increasing amount of supporters and political strength. In the middle and eastern European countries radical right-wing parties are on the rise, while in southern European countries, where the sovereign debt crisis hit the economy severely, radical left-wing parties gain more and more power. These developments seem to stem from the economic turmoil and how this economic recession entered in peoples' minds. I will use *trust in parliament* and *satisfaction with the way democracy works* as proxy variables to anticipate this development.

Redistribution of income is a topic in which especially economic self-assessments influence the decision process whether to support government intervention or not. Therefore, I will also include this relationship into my analysis. The Great Recession had also a European dimension due to the sovereign debt crisis, which I try to capture through the trust in the European parliament. The crisis seems to have increased nationalistic and protectionist attitudes, which result in xenophobic and anti-immigration views. I analyze these attitudes towards immigration on multiple levels, and how they get influenced by economic perceptions. In the current public debate another influx of foreign people dominates the discussions, the so-called refugee crisis. Since this is a recent and ongoing process, I try to give some indications how attitudes towards refugees developed, which are crucial in this debate, and to what extent economic perceptions shape them.

3. Data and Methodology

3.1. Data

The data was collected from the European Social Survey. This survey was conducted in up to 36 European countries (Including Israel, Russia and Turkey) biennially between 2002 and 2014 and contains after revising 205,705 observations. This observation size enables me to extract very precise and inclusive results. The questionnaire was designed by the Centre for Comparative Social Surveys from the City University London. The included countries vary over the different rounds; some countries were more often included while others less (cf. Table 9). Each year core questions are addressed. Furthermore, there are modules regarding specific topics included which change from questionnaire to questionnaire. In the last wave of the questionnaire the data set becomes thinner than in the previous years. While the number of observations has increased continuously from 24 532 in 2002 to 36 074 in 2012, it decreased to 21 742 observations covering 15 countries in 2014. The countries included in this last questionnaire are exclusively from eastern and western Europe to which I will refer in the following as “core” countries (specifically: Austria, Belgium, Czech Republic, Denmark, Germany, Estonia, Ireland, France, Netherlands, Poland, Slovenia, Finland, Sweden, Norway and Switzerland). To ensure robustness of results I ran my regressions firstly on the whole data set, including all countries, and then only on the “core” countries, which were available also in 2014. The results are very similar.

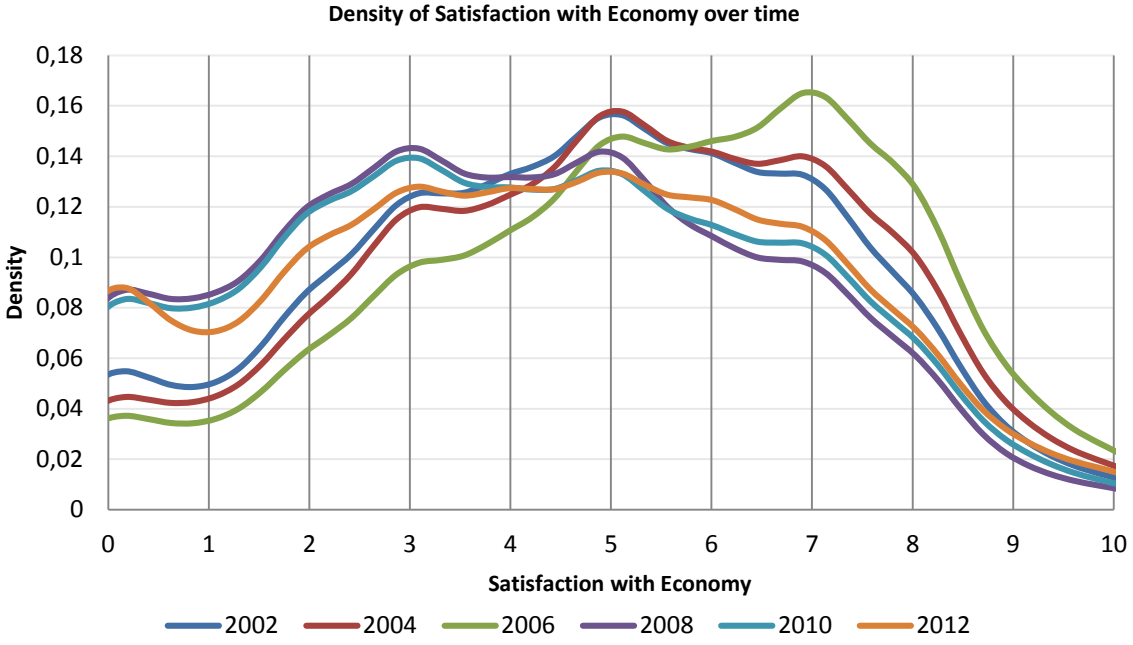
I will use the names of the variables as they appear in the European Social Survey.

The two main explanatory variables are: assessment of the current status of the economy, corresponding to the question: *On the whole how satisfied are you with the present state of the economy in [country]?* (00-Extremely dissatisfied; 10-Extremely satisfied) and economic self-assessment, corresponding to: *Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?* (01- Living comfortably on present income; 02- Coping on present income; 03- Finding it difficult on present income; 04- Finding it very difficult on present income). This differentiation between the two economic assessments enables me to research a possible asymmetry in the impact of economic evaluations. Since the assessments of the status of the economy vary heavily within a country, the question rises how these perceptions are determined.

Duch et al. (2000) question the usage of aggregated data on economic perceptions, since individual levels' biases reflect on the aggregated level. They argue that agents' economic perceptions are influenced by their "political predispositions, personal financial experiences, socioeconomic situation, and level of understanding of the economy" (p. 649). This bias on the individual-level does not cancel out when the data is aggregated as usually assumed in economic voting models. For these models of voting this finding can be detrimental. In my analysis however, it does not influence the validity of the results. Furthermore, these biases do only apply to assessments of the status of the economy, while economic self-assessments, or economic well-being, are not touched by it.

Dickerson (2015), Gerber & Huber (2010) and Wlezien et al. (1997) agree on the effect partisanship has on economic perceptions, indicating that supporters of the incumbent party rate the economy more favourably than others. Moreover, Dickerson (2015) points out the increased impact of presidential approval on economic perceptions during the Great Recession. Chzhen et al. (2013) analyze the same relationship and come to a contradicting conclusion: Economic perceptions especially in times of recessions have a significant impact on presidential approval, while in times of economic growth the impact gets reversed.

Graph 1: Assessments of the economy: Kernel density functions over time (2002-2012)



Notes: Assessments of the Economy is scaled from 0-10. For further variable specification please refer to Appendix A. Kernel density function, Gaussian specification, bandwidth=0.5. For further information refer to methodology A.

There is a controversial academic debate on this topic, which is still in progress and became more vivid with the experience the Great Recession provided.

The developments of the means of both economic assessments show an interesting pattern (cf. table 1). The assessments of the country's economic situation display a sharp decline in 2008, which represents the start of the economic crisis, and maintain values on a significant lower level until 2012 than prior. The structure of answers is displayed in graph 1. The three density curves for the pre-crisis period are easily distinguishable from the three crisis years 2008, 2010 and 2012.

The values reached before the crisis seem to have recovered in 2014, but this result is mostly due to the altered data set in the 2014 questionnaire, which I mentioned above. In turn, the assessments of the own economic situation also deteriorate between 2006 and 2008 and stay on this more negative level in the subsequent years. But comparing these two developments reveals that the economic assessment of the status of the economy got affected much more by the crisis, than economic self-assessments.

The main analysis in this thesis aims at uncovering the impact of these economic perceptions on a set of different social and political attitudes. I organize my regressions into four branches of interest: Trust in policy, attitudes towards redistribution, immigration and refugees.

For the policy component of my research I analyze three different questions in the European Social Survey: Firstly, trust in parliament: *How much do you personally trust in [country]'s parliament?* (00- No trust at all; 10- Complete trust), secondly, trust in the European parliament: *How much do you personally trust in the European Parliament?* (00- No trust at all; 10- Complete trust) and thirdly, satisfaction with democracy: *On the whole, how satisfied are you with the way democracy works in [country]?* (00- Extremely dissatisfied, 10- Extremely satisfied). Since this crisis was also a crisis of European institutions and their relationship to the national political institutions is still a constant object of discussion, it is of considerable interest how they are affected by economic perceptions and how this impact changed in the course of the crisis. Analyzing citizens' relationship to the national parliament yields a reliable proxy for citizens' attitudes towards democratic institutions within their country. To complete this picture of attitudes towards policy and democracy, I included the variable satisfaction with the democracy in [country]. I am aware of the ongoing debate on the validity of the satisfaction with democracy variable, in which Canache et al. (2001)

formulated a comprehensive article. They argue that the meaning of this variable lies in the dimension of these three interpretations: “Support for authorities, system support, and support for democracy as a form of government” (p. 525). Linde & Ekman (2003) follow this line of argumentation, but admit that usage of the democracy variable is valid when analyzed over time, since the development has some explanatory potential. The sort of diffuse support of the incumbent system the democracy variable reflects, explains its’ strong dependence on economic considerations. Considering recent developments in Europe, but also in the US, mistrust against the so-called ‘establishment’ is emerging in many countries. Support for the system seems to vanish slowly away in the last years. However, looking at the data, this is not the case. Table 1 offers descriptive statistics regarding all the dependent and independent variables of interest. The variable *satisfaction with democracy*, which can take values from 0 to 10 (0 represents a very dissatisfied person), is very stable in the pre-crisis years. In 2008 and 2010 it diminishes, while in 2012 the *satisfaction with democracy* increases again in direction to the pre-crisis level. This development reflects the crisis years, but other variables analyzed respond to the Great Recession in a much more significant fashion. Furthermore, *satisfaction with democracy* remains on a relatively higher level than the other policy variables.

Trust in parliament declines over the whole period analyzed, but especially sharp with the beginning of the economic crisis in 2008. The variable recovers slightly in 2012 and in 2014 the recovery seems to be complete. But after considering the limitations of the questionnaire in 2014, this result is not valid. Looking at the mean development of *trust in parliament*, when referring only to the “core” countries, yields stagnation over the whole period. This diverging development within Europe outlines the complexity and diversity the effects of the crisis on political trust inhibit. Torcal (2014) argues that the decline of political trust in Portugal and Spain in 2010 and 2011 depended mainly on corruption, elitist misbehaviour and the lack of responsiveness of politicians to the peoples’ concerns. However, Stevenson & Wolfers (2011) analyze trust in public institutions over the business cycle and come to the conclusion, that the recent decrease in trust is heavily dependent on macroeconomic outcomes. Furthermore, they refuse the hypothesis “this time it’s different” when claiming that the stark increase of mistrust in the US may only be a cyclical response. They base this conclusion on the analysis of cross-country data sets, and the link of rising unemployment with an increased mistrust. While this analysis was undertaken in the US, Van

Erkel & Van der Meer (2016) investigated the development during the crisis in European countries. Following their argumentation, political trust is not based on macroeconomic performance when compared to other countries. They argue that the within-country comparisons with past performances have a great impact on people's trust in public institutions.

The European parliament is viewed differently by respondents and therefore, the trust in it follows a different pattern than the trust in country specific parliaments. The ability of people to distinguish between political institutions on national and supra-national level has been debated especially with reference to the European Union. While it has been common sense for a long time, that agents are not able to make distinction, a new set of scholars argues, that especially among the higher educated the ability to do so is indeed there. Hobolt's (2012) findings indicate a positive relationship between "regime support at the two levels of government" (p.101), referring to the national and supranational level.

Table 1

Development of means of main variables of interest

	2002	2004	2006	2008	2010	2012	2014
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Explanatory variables							
Assessment of the economy	4.71 (0.02)	4.97 (0.01)	5.36 (0.01)	4.03 (0.01)	4.15 (0.01)	4.31 (0.01)	5.22 (0.02)
Economic self-assessment	1.84 (0.01)	1.93 (0.01)	1.90 (0.00)	2.03 (0.00)	2.07 (0.00)	2.06 (0.00)	1.79 (0.01)
Dependent variables							
Trust in national parliament	5.14 (0.01)	4.88 (0.01)	4.79 (0.01)	4.49 (0.01)	4.17 (0.01)	4.29 (0.01)	4.97 (0.02)
Trust in the European parliament	4.76 (0.01)	4.68 (0.01)	4.72 (0.01)	4.65 (0.01)	4.41 (0.01)	4.51 (0.01)	4.40 (0.02)
Redistribution	2.29 (0.01)	2.26 (0.01)	2.21 (0.01)	2.17 (0.01)	2.11 (0.01)	2.09 (0.01)	2.26 (0.01)
Immigration: Economy	5.10 (0.01)	4.91 (0.01)	5.13 (0.01)	4.97 (0.01)	4.81 (0.01)	5.04 (0.01)	5.13 (0.02)
Immigration: Country	4.90 (0.01)	4.89 (0.01)	4.98 (0.01)	4.96 (0.01)	4.86 (0.01)	5.11 (0.01)	5.26 (0.01)
Immigration: Culture	5.93 (0.02)	5.66 (0.02)	5.69 (0.02)	5.57 (0.01)	5.41 (0.01)	5.72 (0.01)	5.87 (0.02)
Refugees	3.28 (0.01)						2.88 (0.01)
Satisfaction with democracy	5.66 (0.01)	5.60 (0.01)	5.54 (0.01)	5.11 (0.01)	5.03 (0.01)	5.43 (0.01)	5.67 (0.02)

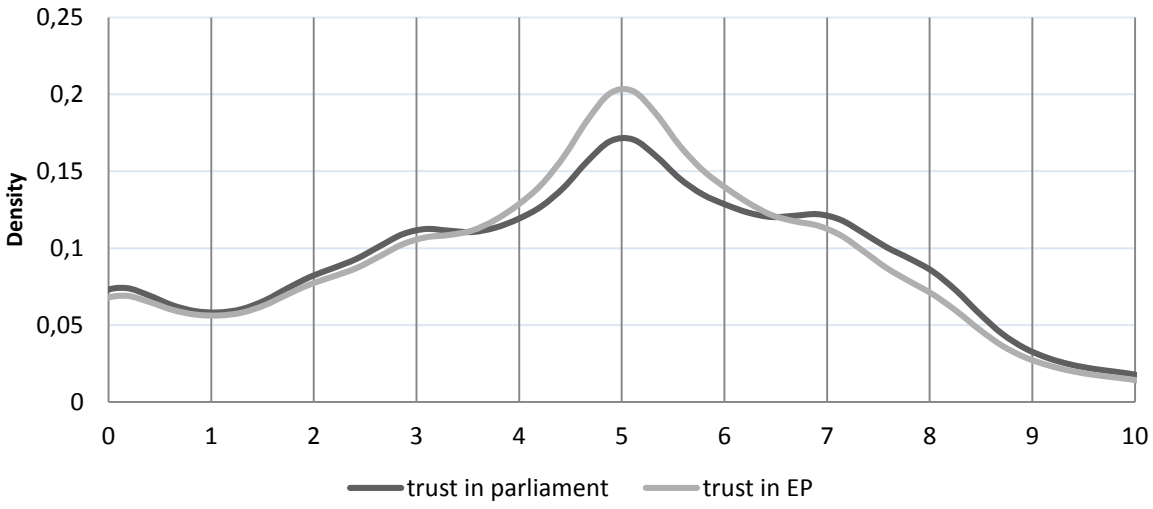
Notes: For specification of variables, please refer to Appendix A. The variable "Refugees" is only included in the ESS waves of 2002 and 2014.

However, when looking more closely to the development of the means, this supposed close relationship vanishes. Between 2002 and 2008 the mean remains on the same level, followed by a drop in trust in 2010, from which the variable never recovers. When investigating solely the western and eastern European countries, excluding the southern periphery, the development is very similar to the development including all countries. Therefore, it is possible to evaluate the ESS wave of 2014 and its respective mean as a valid approximation for the other countries. This implicates a lasting effect on *trust in the European parliament*, contrary to trust in national parliaments. This result opposes also the findings of Armingeon & Ceka (2013), who conclude that support for European institutions is closely tied to support of national institutions. Nonetheless it has to be said that the data set analyzed by them only included the years 2007-2011. Yet following the treatment of the sovereign debt crisis, the European institutions have a severe trust problem. Braun & Tausendpfund (2014) find that support for the European Union declined in all 27 EU member states between April 2007 and November 2012. Furthermore, they conclude that "the impact of the Euro crisis on EU support is stronger than the impact of the global crisis" (p.242). This is consistent with the drop of the mean of *trust in the European parliament* in 2010 contrary to the decrease of *trust in parliament*, which occurred in my data sample two years earlier. The difference in nature between the two kinds of trust becomes even more visible when looking at Graph 2. *Trust in the European parliament* exhibits a much higher density when evaluated at the most neutral point (=5), which may be caused by a poorer ability of respondents to evaluate the European parliament.

The analysis regarding immigration is divided into three questions, which I code as it follows: Firstly, Immigration: Economy, *Would you say that it is generally bad or good for [country]'s economy that people come to live here from other countries?* (00- Bad for economy; 10- Good for economy), secondly, Immigration: Country, *Is [country] made a worse or better place to live by people coming to live here from other countries?* (00- Worse place to live; 10- Better place to live) and at last Immigration: Culture, *Would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here* from other countries? (00- Cultural life undermined; 10- Cultural life enriched). I chose to divide the immigration part in order to encounter the diverse aspects of immigration, which may be evaluated

differently by agents.

Graph 2: Trust in parliament vs trust in European parliament density functions



Notes: Both variables are scaled 00-10. For further variable specification please refer to Appendix A.
Kernel density function, Gaussian specification, bandwidth=0.5. For further information refer to Methodology A.

The economy component is directly related to possible economic outcomes and is linked most closely to my main explanatory variables of economic assessments. The second variable, *Immigration: Country*, is displaying the more general attitude of respondents towards immigration. While with the last variable, *Immigration: Culture*, I try to examine the pure xenophobic effect respondents may develop in the course of a bad economic condition. No one would really deny the enriching impact immigration has on the cultural life in a country, besides xenophobically motivated. This is also the reason why *Immigration: Culture* is expected to be the least affected by a bad assessment of the economic performance. Nevertheless, as all immigration variables it displays a small decrease during the crisis years. Interestingly when only analyzing the "core" countries, both *Immigration: Culture and - Economy* show a decrease between 2002 and 2014, while *Immigration: Country* exhibits an increase. This demonstrates the variety of aspects people consider when forming their attitudes towards immigration. Goldstein & Peters (2014) identify minor changes during the Great Recession as well: They explain these alterations of attitudes with how "the recession was affecting their economic security" (p.29). Dancygier & Donnelly (2013) point out the negative effect of a deterioration of economic conditions on attitudes towards immigration as well. They break down the working population in sectors and come to the conclusion that attitudes towards sector-level immigration are similarly shaped in high-skilled and low-skilled industries. This finding is in line with standard trade models, but since the influx of low-

skilled workers outweighs the influx of high-skilled workers in most European countries, the impact of education on attitudes towards immigration is still positive. Hainmueller & Hiscox (2007) come to the contradicting conclusion that higher educated workers are more in favour of immigration disregarding the skill-nature of the immigrants. They argue that higher educated people value cultural diversity higher, have fewer racist sentiments and evaluate the effect of immigration on the whole economy more positive.

Using the variable *refugees*, referring to the question: *Some people come to this country and apply for refugee status on the grounds that they fear persecution in their own country. Please say how much you agree or disagree that: 'the government should be generous in judging people's applications for refugee status'* (01- Agree strongly; 05- Disagree strongly), I try to analyze to what extent economic perceptions shaped the attitudes underlying the current policies conducted in Europe. This question was only part in the first and the last round of the ESS, 2002 and 2014, and surely it would be very interesting to understand how this variable developed in very recent times, but the ESS questionnaire of 2016 is not yet published. The mean developed from 3.28 in 2002 to 2.88 in 2014, which corresponds to a change towards a more favourable treatment of refugees. This shows that attitudes towards refugees are shaped differently compared to attitudes towards immigration. O'Rourke & Sinnott (2006) point out this difference in the structure of attitudes, furthermore they conclude that refugees, in difference to "normal" immigrants, are not judged based on their economic potential.

To evaluate the composition and development of preferences for redistribution I use the variable *redistribution*, which corresponds to the question: *The government should take measures to reduce differences in income levels.* (01- Agree strongly; 05- Disagree strongly). The mean shows a decreasing trend over the course of the crisis, which corresponds to a higher support for redistributory measures. When only investigating the means of the "core" countries, the same direction of the trend is displayed. Olivera (2015) finds a positive relationship between the Gini coefficient and preferences for redistribution, which may explain this difference of levels between countries of the European Union. The Gini coefficient in the "core" Europe tends to be lower than in southern European countries. Therefore, it is no surprise that the support for redistributional efforts in 2008 in the "core"

countries averages 2.32 and in the other countries stands at 1.92.

Table 2

Development of means of the socio economic control variables

	2002	2004	2006	2008	2010	2012	2014
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age	44.47	44.55	45.58	45.65	46.75	47.06	48.01
	(0.11)	(0.10)	(0.10)	(0.09)	(0.10)	(0.09)	(0.12)
Age sq/100	22.63	22.78	23.76	23.83	24.94	25.27	26.21
	(10.26)	(9.89)	(10.09)	(8.83)	(9.39)	(9.09)	(11.93)
Left-right scale	5.11	5.19	5.09	5.21	5.17	5.22	5.09
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Years of education	12.40	12.14	12.79	12.57	12.88	13.05	13.44
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Sex	0.52	0.50	0.51	0.50	0.49	0.49	0.50
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Unemployment history	0.20	0.19	0.22	0.22	0.21	0.23	0.23
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Born in country	0.92	0.93	0.93	0.92	0.92	0.92	0.91
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Member of a minority	0.04	0.04	0.04	0.06	0.05	0.06	0.05
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Notes: For further specification of variables please refer to Appendix A. Gender, Unemployment history, Born in country and Member of a minority are all dummy variables. Age sq/100 is the age raised by the power of 2 and divided by 100 (SE are not divided by 100)

3.2 Methodology A

The literature review raised the question if ordinal, discrete variables can be treated as continuous variables, since they are, at least in social surveys, ordinal approximations of continuous variables (Winship & Mare, 1984). However, applying linear estimation methods as OLS, does not include the possible non-linear structure of the variables, which extracts biased results.

My variables of interest are measured in discrete outcomes, with eleven, five or four distinct values. A common way to treat ordered data is to dichotomize it and use different linear methods, as OLS or a linear probit model. But since many of my dependent variables have eleven distinct values, besides *redistribution*, I would lose too much information in dichotomizing them. Therefore, I use a widely known and used model in analyzing ordered discrete data sets: An ordered logit model. An alternative would have been an ordered probit model, which is an extension to the linear probit model. This model has been proposed by McKelvey & Zavoina (1975) in their fundamental work. They outlined the invalidity of linear regression techniques and the advantages of ordered probit models regarding the analysis of discrete ordinal variables. I compared my results of the ordered logit model with the ordered probit method, and it yielded no significant different results. An ordered logit model is estimated using the Maximum-Likelihood method, which is especially valid in large samples (Long & Freese, 2003). For a complete and distinct analysis, I divide and categorize my main explanatory variables, economic self-assessment and assessments of the national economy, into their outcomes. For the assessments of the national economy this results in eleven different dummy variables, while for the economic self-assessments four dummy variables are created.

3.2.1 Baseline model

The baseline model is taken from Kerr (2014), but modified to fit my purposes.

Baseline model for assessments of the economy:

$$Pref_{i,c,t} = \beta_1 assessment0_i + \beta_2 assessment1_i + \beta_3 assessment2_i + \beta_4 assessment3_i + \beta_5 assessment4_i + \beta_6 assessment5_i + \beta_7 assessment6_i + \beta_8 assessment7_i + \beta_9 assessment8_i + \beta_{10} assessment9_i + \beta_{11} assessment10_i + \beta_{12} sex_i + \beta_{13} lrscale_i + \beta_{14} une3m_i + \beta_{15} born_i + \beta_{16} minority_i + \beta_{17} age_i + \beta_{18} age2_i + \beta_{19} eduyrs_i + \beta_{20}\, \phi_c + \beta_{21} \eta_t + \varepsilon_i$$

Baseline model for economic self-assessment:

$$Pref_{i,c,t} = \beta_1 living\ comfortably_i + \beta_2 coping\ on_i + \beta_3 difficult_i + \beta_4 very\ difficult_i + \beta_5 sex_i + \beta_6 lrscale_i + \beta_7 une3m_i + \beta_8 born_i + \beta_9 minority_i + \beta_{10} age_i + \beta_{11} age2_i + \beta_{12} eduyrs_i + \beta_{13}\, \phi_c + \beta_{14} \eta_t + \varepsilon_i$$

$Pref_{i,c,t}$: Social preference or attitude

Φ_c : Country fixed effects

η_t : Time fixed effects

assessment0$_i$ – assessment10$_i$: Assessment of the economy for every answer category

living comfortably$_i$, coping on$_i$, difficult$_i$, very difficult$_i$: Economic self-assessment split up for category

sex$_i$: Takes value 1 if male

lrscale$_i$: Self assessment on political left-right scale (00 – extremely left, 10 – extremely right)

une3m$_i$: Takes value if 1 if person was ever unemployed for a period longer than three months (excluding currently unemployed)

born$_i$: Takes value 1 if respondent is born in country

minority$_i$: Takes value 1 if respondent considers himself as member of a minority

age$_i$: Age of respondent

age2$_i$: Squared age of respondent

eduyrs$_i$: Years of schooling

3.2.2 Non-linear probability model

If I define the distinct outcomes of my dependent variable as *m*, such that when for example regressing for trust in parliament *m* can take values between 0 and 10, and the maximum outcome as J. Then the odds-ratios Ω, following the work of Long & Freese (2003), can be defined as:

$$\Omega_{\leq \mathrm{m}|>m}(\mathrm{x}) \equiv \frac{\Pr(\mathrm{y} \leq \mathrm{m}|\mathrm{x})}{\Pr(\mathrm{y} > m|\mathrm{x})} \text{for } \mathrm{m} = 1, \mathrm{J} - 1$$

The odds-ratio is the ratio of the probability that the dependent variable takes values smaller or equal than *m* over the probability that it takes values larger than *m*. Therefore, the odds-ratio is valid for all outcomes for the ordinal and discrete variable. This implicates that the odds between different categories do not change (Fullerton & Xu, 2012) and therefore that the odds do not depend on *m*. A value greater than 1 implies a positive effect of the independent variable, while a value smaller than 1 has a negative impact, conditional on the effects of all other variables. Ordered logit models do not have a constant, but cutting points, representing the underlying continuity of the discrete dependent variable. The first cutting point is equal to the constant when applying a "normal" logistic regression (Long & Freese, 2003).

3.2.3 Parallel regression assumption

One of the biggest challenges working with the ordered logit model is a possible violation of the parallel regression assumption. This assumption demands that the odds between different categories do not change depending on the category to which they are applied.

In large data sets a violation is very frequent, if not inevitable. Especially having dependent variables with eleven distinct values heavily increases the probability of a violation. The alternative to the ordered logit model is a generalized logistic regression. I used this model on my data set and the outcomes were very similar to my model. Since a generalized logistic regression is impractical in interpretation and presentation I chose to stick with the ordered logit model.

3.2.4 Kernel density functions

In order to make the results of the ordered logit model graphically presentable, I chose to use Kernel density functions. The classic alternative would be histograms, but the application of those does not allow to apply the weights used in the ESS. Since the results of a social survey are only valid when weights applied, I chose to use another method. Kernel density functions were designed to treat continuous data, but since I over smoothed the density function, it is a valid approximation of the results. The application of the Kernel density function allows me to present my results in a comprehensive fashion.

4. Results

In order to give a detailed and structured overview of my results, I present firstly my results regarding the pure impact of economic perceptions on social preferences and attitudes. In a second step I present the results the Wald tests produced, in order to identify possible changes in the impact of economic perceptions on social preferences and attitudes during the course of the Great Recession.

4.1 The impact of economic perceptions on social preferences and attitudes

4.1.1 Politics

To analyze the impact and the development of the impact of economic perceptions on political attitudes, I run six different regressions, referring to my three dependent variables, *trust in [country]'s parliament*, *trust in the European parliament* and *satisfaction with democracy*. Trust in policy in general and especially the *trust in national parliament* is heavily influenced by the assessment of the current status of the economy. As displayed in table 3, all of the dummies constructed which correspond to the different levels of economic satisfaction are highly significant. For respondents who are very dissatisfied with the current economic status, the odds-ratio is 0.023. Therefore, agents who express a very low satisfaction with the present state of [country]'s economy have with a very high probability less trust in the national parliament. For this evaluation the economically very satisfied are the reference, and therefore a very dissatisfied respondent with the current state of the economy has with a probability of 98% less trust in the national parliament than a respondent being very satisfied with the state of the economy (cf. table 3 column (1)).

The results for the economic assessments are in increasing order and all consistent with the hypothesis, that a lower evaluation of the economy corresponds to lower levels of trust. This result is consistent with the literature, as for instance Armingeon & Guthmann (2014) found in their analysis of the declining support for national democracies. When regressing for egocentrics assessments of the current economic status, the results are also highly significant (displayed in table 4, column (1)). In particular, the odds-ratio for the answer 'living comfortably' is equal to 2.305.

Table 3
The effect of assessments of the economy on attitudes in politics and redistribution

		Trust in national parliament	Trust in the European parliament	Satisfaction with democracy	Redistribution
		(1)	(2)	(3)	(4)
satisfaction with the current status of the economy in [country]	very dissatisfied	0.023**	0.088**	0.008**	0.412**
		(0.001)	(0.004)	(0.000)	(0.016)
	1	0.052**	0.145**	0.017**	0.524**
		(0.002)	(0.006)	(0.001)	(0.021)
	2	0.083**	0.208**	0.030**	0.620**
		(0.003)	(0.008)	(0.001)	(0.023)
	3	0.129**	0.291**	0.049**	0.694**
		(0.005)	(0.011)	(0.002)	(0.026)
	4	0.185**	0.390**	0.078**	0.773**
		(0.007)	(0.015)	(0.003)	(0.028)
	5	0.220**	0.419**	0.103**	0.789**
		(0.008)	(0.016)	(0.004)	(0.029)
	6	0.337**	0.610**	0.169**	0.897**
		(0.013)	(0.023)	(0.007)	(0.033)
	7	0.461**	0.735**	0.253**	0.967
		(0.018)	(0.027)	(0.010)	(0.035)
	8	0.587**	0.854**	0.390**	1.040
		(0.023)	(0.032)	(0.015)	(0.038)
	9	0.821**	0.972	0.588**	1.129**
		(0.035)	(0.041)	(0.026)	(0.047)
	very satisfied	1	1	1	1
Demographic variables					
Education		1.047**	1.030**	1.027**	1.047**
		(0.001)	(0.001)	(0.001)	(0.001)
Left-Right scale		1.026**	1.016**	1.059**	1.173**
		(0.002)	(0.002)	(0.002)	(0.002)
Unemployment History		0.873**	0.913**	0.881**	0.772**
		(0.008)	(0.008)	(0.008)	(0.008)
Sex		1.058**	0.865**	1.088**	1.213**
		(0.008)	(0.007)	(0.008)	(0.010)
Born in Country		0.869**	0.792**	0.787**	0.943**
		(0.013)	(0.012)	(0.012)	(0.015)
Member of Minority		1.067**	1.084**	1.033	0.887**
		(0.021)	(0.021)	(0.020)	(0.018)
Age		0.988**	0.952**	0.986**	0.986**
		(0.001)	(0.001)	(0.001)	(0.001)
Age squared		1.000**	1.000**	1.000**	1.000**
		(0.000)	(0.000)	(0.000)	(0.000)

Note: All regression results in this table are obtained by the ordered logistic model and displayed as odds-ratios. The dependent variables in columns (1)-(3) take discrete values between 0 and 10 (where 10 represents the highest trust/satisfaction). The redistribution variable takes values from 1 to 5, where 1 corresponds to the highest level of agreement to redistribution measures. For further information on all displayed variables refer to Appendix A.
* Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

The socioeconomic control or demographic variables have a considerable impact on *trust in [country]'s parliament*. Years of schooling have a positive impact, as well as evaluating oneself as being more right-wing. Respondents with an unemployment history exhibit less trust as well as respondents being born in the country of their residence. Male respondents are slightly more likely to have more trust in the national parliament, than female respondents. Members of minorities have higher trust while age plays a negative role when trusting the parliament, though the impact is of concave nature, as the interpretation of age squared reveals

Similar to the effect economic perceptions have on trust in [country]'s parliament, a more positive evaluation of the current economic status in [country] leads to a higher trust in the European parliament. This is in line with the results of Gabel & Whitten (1997); that economic perceptions play an important role in determining citizens' support for a further integration. Furthermore - in a more recent analysis of trust in European institutions during the Great Recession - Armingeon & Ceka (2013) find a significant influence of assessments of the economic status on trust in the European Union. My results follow these findings although the relationship is weaker than on national level, but still heavily significant.

The economic self-assessments there is also a strong relationship between egocentric economic assessments and trust in the European parliament. This finding is contrary to Karp et al. (2003) who show in their regression that satisfaction with European institutions is independent of economic self-assessments, and further that assessments of the economy play, especially among the well-educated, a subordinate role.

As in the case of trust in the national parliament, the economic self-assessments do not have the same importance as assessments of the economy. The socioeconomic control variables follow the same pattern as in the case of trust in the national parliament, besides that male respondents are less likely to trust in the European parliament.

The dependent variable *satisfaction with democracy* yields the lowest odds-ratios for the explanatory variable of interest *assessment of the economy* (cf. table 3 column (3)). A respondent assessing the economy as being very bad (*assessment of the economy*=0) is with a chance of more than 99% less satisfied with the way democracy works in his country, than a respondent evaluating the economy to be in a very good shape.

Table 4

The effect of economic self-assessments on Politics and Redistribution

		Trust in national parliament	Trust in European Parliament	Satisfaction with democracy	Redistribution
		(1)	(2)	(3)	(4)
assessment of the own economic situation	Living comfortably	2.305** (0.046)	2.104** (0.042)	2.806** (0.056)	2.414** (0.052
	Coping	1.704** (0.032)	1.670** (0.032)	1.976** (0.037)	1.663** (0.034)
	Difficult	1.326** (0.026)	1.351** (0.027)	1.432** (0.028)	1.274** (0.027)
	Very difficult	1	1	1	1
Demographic Variables					
Education		1.045** (0.001)	1.028** (0.001)	1.025** (0.001)	1.038** (0.001)
Left-Right Scale		1.056** (0.002)	1.037** (0.002)	1.092** (0.002)	1.178** (0.002)
Unemployment History		0.828** (0.008)	0.882** (0.008)	0.832** (0.008)	0.809** (0.008)
Sex		1.099** (0.009)	0.894** (0.007)	1.137** (0.009)	1.211** (0.010)
Born in Country		0.765** (0.012)	0.721** (0.011)	0.678** (0.011)	0.877** (0.014)
Member of Minority		1.063** (0.021)	1.097** (0.022)	1.037 (0.020)	0.923** (0.019)
Age		0.981** (0.001)	0.949** (0.001)	0.978** (0.001)	0.986** (0.001)
Age squared		1.000** (0.000)	1.000** (0.000)	1.000** (0.000)	1.000** (0.000)
Pseudo R2		0.050	0.019	0.054	0.030
# Observations			205705		

Notes: All regression results in this table are obtained by the ordered logistic model and displayed as odds-ratios. The dependent variables in columns (1)-(3) take discrete values between 0 and 10 (where 10 represents the highest trust/satisfaction). The redistribution variable takes values from 1 to 5, where 1 corresponds to the highest level of agreement to redistribution measures. For further information on all displayed variables refer to Appendix A. * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

Comparing the regression of *trust in [country]'s parliament* with *satisfaction with democracy* indicates a stronger impact of economic perceptions on the satisfaction with democracy. This finding confirms the results Armingeon & Guthmann (2014) present, who conclude as well that the impact of economic perceptions on *satisfaction with democracy* is more significant than on the trust in parliament. This is inter alia caused of the multiple ways the question can be understood and interpreted by the respondents, as Canache et al. (2003) state. Economic

self-assessments do have a considerable impact as well on the satisfaction with democracy (cf. table 4 column (3)). A respondent who can 'live comfortably' on his households' income is almost three times more likely to be more satisfied with the way democracy works, than a respondent who finds it 'very difficult' to live with his household present income.

The coefficients of the socioeconomic control variables show the same pattern as for *trust in [country]'s parliament*. Interestingly, the years of schooling do not play such a significant role as before, but are still significant.

4.1.2 Redistribution

The variable concerned with attitudes towards redistribution is significantly influenced by economic perception. In difference to attitudes towards politics and immigration, economic self-assessments dominate the assessments of the economy. The better the respondent evaluates his household's income, the less favourably he evaluates measures taken by the government to reduce differences in income levels. Olivera (2015) analyzes this relationship, referring to the same data set I use, and finds highly significant values for the economic self-assessments. He states very precisely that the level of income inequality in a country determines heavily the level of preferences for redistribution, which explains the positive and highly significant values of the coefficients for the country-dummy variables of Nordic countries.

Alesina & Giuliano (2011) provide an extensive analysis of the determinants of preferences for redistribution and identify family income as a key driver. Corneo & Grüner (2000) analyze the three effects, which shape preferences for redistribution: the 'homo oeconomicus effect', the 'public values effect', and the 'social rivalry effect'. They find all three effects being significant, and furthermore that the 'homo oeconomicus effect' is heavily influenced by the economic self-assessment of agents. Other scholars like Cruces et al. (2012), try to examine the possible bias agents have when placing themselves in the income distribution. After placing themselves on the income distribution, agents were provided with their actual position. Agents overestimating their position demanded more redistribution than initially, outlining the importance of correct information and the importance economic self-assessment has in shaping preferences for redistribution. Following the findings of Alesina & Guliano (2011), another factor plays an important role, leaving economic perceptions aside. Political self-assessment, whether feeling more close to the right-, or left-wing, is crucial in

explaining redistributional preferences. Alesina & Giuliano (2011) state that the question of redistribution is "probably the most important dividing line between the political left and the political right" (p.94). Therefore, it is not surprising that the odds-ratio for the left-right scale variable is positive and significant.

Age, having an unemployment history, being born in a country or being a member of a minority are all factors which drive people to be more in favour of redistribution. Male citizens as well as the better educated are less in favour of redistribution.

4.1.3 Immigration

All three immigration variables I used show a significant dependence on economic perceptions. The assessments of the economy play there a bigger role than the economic self-assessments respondents have (cf. table 5 and 6). This relative importance of assessments of the economy in contrast to economic self-assessments is in line with the results Citrin et al. (1997) find. They present a possible explanation for economic discontent raising xenophobic views: The "psychodynamic theory of scapegoating". This theory argues that economic discontent "acts as a trigger for the displacement of anxiety and anger onto minority groups" (p.876).

Besides this relative importance and the theory of scapegoating, the most common way to link immigration with economics is inside the framework of the Heckscher-Ohlin model. The theory suggests that in low-skilled labour immigration into countries, which are high skilled labour abundant, leads to a decrease in wages for low-skilled workers. The findings of Malchow-Møller et al. (2008), who analyze the same data set as I do, are in line with this theory. They conclude that economic self-interest, such as the opinion 'immigrants take jobs away,' play an important role in explaining anti-migration attitudes. Furthermore, they find a highly significant and negative impact of lower educated people on anti-immigration attitudes. Since they are analyzing this relationship using the EU-15 plus Norway, which can be defined as 'rich' and high skilled labour abundant countries, their findings confirm the Heckscher-Ohlin implications. O'Rourke & Sinnott (2005), as well as Mayda (2006), do an extensive analysis of anti-immigration determinants and reach to the same conclusion. The question, why these findings matter in the framework of an analysis regarding economic self-assessments, which is a relative concept, is legitimate.

But when revising the question of economic self-assessment, I think it becomes quite clear,

why a reference to standard theory is justified. The question was '*Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?* (01- Living comfortably on present income; 02- Coping on present income; 03- Finding it difficult on present income; 04- Finding it very difficult on present income)', which indicates that people of a lower standard of living are more likely to answer three or four.

There are also scholars like Burns & Gimpel (2000) who argue that stereotypical thinking is more important than economic considerations. But nevertheless they do not deny the economical component of stereotypes, agreeing on the impact economic perceptions have, but concluding that they are much weaker than previously assumed. These findings are opposed by Goldstein & Peters (2014) who identify the economic position as being "perhaps the most important […] component of an individual's attitudes" (p. 399) towards immigration.

The socioeconomic control variables show similarities with their impact on the political dimension analyzed. Years of schooling play a much bigger role though than before, as the findings of Malchow-Møller et al. (2008) suggest, and the sign of the left-right scale variable is reversed, which is intuitive, since the political left-wing is associated with a more open society vis-à-vis foreigners. A surprising change is, that male citizens judge immigration more favourably than their female counterparts. The age of respondents does not play any role in determining attitudes towards immigration.

4.1.4 Refugees

In the ESS questionnaires of 2002 and 2014 there is a question included asking how generously asylum seekers should be treated by the government. I incorporated this variable into my model, since in recent times the "refugee-crisis" dominates the political discussion in many European countries on the national and European level. The mean developed from 3.28 in 2002 to 2.88 in 2014, representing considerable change. Interestingly the assessments of the economy dominate the economic self-assessments, following the pattern I find when regressing the attitudes towards immigration. Furthermore, the relationship between economic perceptions and the Refugee variable is much weaker than when regressing for immigration variables (cf. table 5 and 6 column (4)). O'Rourke & Sinott (2006) argue that in comparison to 'normal' immigrants, refugees are not allowed to work (which is true at least in some countries or for a certain amount of time) and that they are therefore

Table 5
The effect of assessments of the economy on attitudes towards Immigration and Refugees

		Immigration			Refugees
		Economy	Country	Culture	
		(1)	(2)	(3)	(4)
satisfaction with the current status of the economy in [country]	very dissatisfied	0.138** (0.005)	0.171** (0.007)	0.252** (0.010)	2.576** (0.208)
	1	0.196** (0.008)	0.241** (0.010)	0.310** (0.012)	2.330** (0.195)
	2	0.247** (0.009)	0.303** (0.012)	0.368** (0.014)	2.084** (0.159)
	3	0.303** (0.011)	0.366** (0.014)	0.425** (0.016)	1.889** (0.139)
	4	0.379** (0.014)	0.451** (0.017)	0.499** (0.018)	1.687** (0.124)
	5	0.413** (0.015)	0.486** (0.018)	0.507** (0.019)	1.580** (0.114)
	6	0.541** (0.020)	0.637** (0.024)	0.614** (0.023)	1.405** (0.102)
	7	0.644** (0.024)	0.713** (0.026)	0.698** (0.026)	1.431** (0.103)
	8	0.736** (0.028)	0.770** (0.029)	0.745** (0.028)	1.355** (0.099)
	9	0.877** (0.037)	0.843** (0.035)	0.849** (0.035)	1.162 (0.096)
	very satisfied	1	1	1	1
Demographic Variables					
Education		1.099** (0.001)	1.083** (0.001)	1.103** (0.001)	0.959** (0.002)
Left-Right Scale		0.942** (0.002)	0.922** (0.002)	0.904** (0.002)	1.162** (0.005)
Unemployment History		0.935** (0.009)	0.958** (0.009)	1.009 (0.009)	0.950* (0.019)
Sex		1.186** (0.009)	0.973** (0.008)	0.915** (0.007)	1.157** (0.020)
Born in Country		0.624** (0.010)	0.559** (0.009)	0.651** (0.010)	1.305** (0.043)
Member of Minority		1.204** (0.024)	1.245** (0.025)	1.213** (0.024)	0.708** (0.033)
Age		1.000 (0.001)	0.999 (0.001)	1.006** (0.001)	1.029** (0.003)
Age squared		1.000 (0.000)	0.999* (0.000)	0.999** (0.000)	0.999** (0.000)
Pseudo R^2		0.039	0.046	0.051	0.057
Number of Observations			205705		46274

Notes: All regression results in this table are obtained by the ordered logistic model and displayed as odds-ratios. The dependent variables in columns (1)-(3) take discrete values between 0 and 10 (where 10 represents the highest trust/satisfaction). The refugee variable takes values from 1 to 5, where 1 corresponds to a most favourable treatment of refugees. For further information on all displayed variables refer to Appendix A.* Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

not perceived as competitors in the labour market. Their appearance is hence not perceived to pose a direct threat to the economic status of the incumbent population. This explains the weak relationship with the economic self-assessments.

Since they are not allowed to work, they represent a burden for the welfare system, and a worsening of the perceived economic condition can lead respondents to view asylum seekers less favourably.

Table 6

The effect of economic self-assessments on attitudes towards Immigration and Refugees

		Immigration			Refugees
		Economy	Country	Culture	
		(1)	(2)	(3)	(4)
assessment of the own economic situation	Living comfortably	2.196** (0.044)	2.132** (0.043)	1.782** (0.036)	0.792** (0.043)
	Coping	1.606** (0.030)	1.649** (0.031)	1.417** (0.026)	0.855** (0.045)
	Difficult	1.295** (0.026)	1.336** (0.026)	1.203** (0.024)	0.912 (0.051)
	Very difficult	1	1	1	1
Demographic Variables					
Education		1.093** (0.001)	1.078** (0.001)	1.098** (0.001)	0.958** (0.002)
Left-Right Scale		0.956** (0.002)	0.934** (0.002)	0.913** (0.002)	1.156** (0.005)
Unemployment History		0.933** (0.009)	0.958** (0.009)	1.012 (0.009)	0.957* (0.019)
Sex		1.207** (0.009)	0.986 (0.008)	0.926** (0.007)	1.147** (0.019)
Born in Country		0.571** (0.009)	0.519** (0.008)	0.609** (0.009)	1.359** (0.044)
Member of Minority		1.222** (0.024)	1.261** (0.025)	1.230** (0.024)	0.716** (0.033)
Age		0.997* (0.001)	0.996** (0.001)	1.004** (0.001)	1.031** (0.003)
Age squared		1.000* (0.000)	0.999 (0.000)	0.999** (0.000)	0.999** (0.000)
Pseudo R^2		0.030	0.038	0.047	0.054
Number of Observations			205705		46274

Notes: For further specification of variables please refer to Appendix A. Age squared is slightly greater than 1 and plays therefore a positive role when regressing all four independent variables. The number of observations is equal in the column (1) – (3). * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

4.1.4 Refugees

In the ESS questionnaires of 2002 and 2014 there is a question included asking how generously asylum seekers should be treated by the government. I incorporated this variable into my model, since in recent times the "refugee-crisis" dominates the political discussion in many European countries on the national and European level. The mean developed from 3.28 in 2002 to 2.88 in 2014, representing considerable change. Interestingly the assessments of the economy dominate the economic self-assessments, following the pattern I find when regressing the attitudes towards immigration. Furthermore, the relationship

between economic perceptions and the Refugee variable is much weaker than when regressing for immigration variables (cf. table 5 and 6 column (4)). O'Rourke & Sinott (2006) argue that in comparison to 'normal' immigrants, refugees are not allowed to work (which is true at least in some countries or for a certain amount of time) and that they are therefore not perceived as competitors in the labour market. Their appearance is hence not perceived to pose a direct threat to the economic status of the incumbent population. This explains the weak relationship with the economic self-assessments. Since they are not allowed to work, they represent a burden for the welfare system, and a worsening of the perceived economic condition can lead respondents to view asylum seekers less favourably.

4.2 The impact of economic perceptions on social preferences and attitudes during the Great Recession

4.2.1 Methodology B

4.2.1.1 Wald test

In order to be able to identify a possible change in the impact of economic perceptions over the course of the economic crisis I conduct a Wald test. I use the ordered logistic model applied previously, but with an altered main explanatory variable. In contrast to my first regressions I multiply the economic assessments with the different points in time. Therefore, I create dummies time*(economic assessment) in which the economic assessment is already categorized in dummies following the different values the variable can take. The ESS was conducted in seven waves between 2002 and 2014. For reasons illustrated in chapter 2, I do not use the last wave of 2014. Additional to the problem the data poses in 2014, leaving this year aside has the advantage that the reference point for the probabilities is the dummy corresponding to respondents who are very satisfied with the state of the economy in 2012, or respondents facing a very difficult economical time in 2012 respectively. This provides a clearer presentation of the results.

Furthermore, I control for time-fixed effects, accounting for the changes in the dependent variable during the crisis. This method yields only an indication on how economic perceptions and the corresponding dependent variables interacted on average. To get more precise information I regress additionally towards the categorized economic perceptions

crossed with time. This yields information about how and if the different categories changed their impact. Then I use the Wald test in order to extract whether there were changes in the impact of economic perceptions on social preferences and attitudes. I use 2006 as the "pre-crisis" year, since *satisfaction with economy* decreases in 2008 already heavily. The fourth round of the ESS was conducted between 01.09.2008 and 31.12.2008, which explains the heavy response to the economic turmoil. Since I suppose that the formation of social preferences and attitudes is a more inert process than the formation of economic perceptions, I compare the outcomes of 2006 with 2012 and spare the questionnaires of 2008 and 2010 out. I assume the formation of social preferences and attitudes to be more complete when the hectic beginning of the Great Recession has been overcome. Since I assume inertia in the formation of attitudes, I expect to get significant results for the year 2012. For reasons outlined previously I disregard in this analysis the results obtained for the ESS questionnaire of 2014.

4.2.2 Results

4.2.2.1 Politics

Comparing the odds-ratios of column (1) and (2) of table 7 using the Wald test does not yield any difference in odds-ratios for the categories 00-04 of the satisfaction with economy variable vis-à-vis *trust in parliament*. The respondents being more satisfied with the current status of the economy (categories 05-08) are significantly more likely in the crisis year of 2012 to have more trust in the national parliament than their counterparts of 2006.

Therefore, the respondents in 2012 exhibit a higher or the same probability of having a higher trust in parliament, vis-à-vis their assessments of the status of the economy, than the respondent in 2006. This indicates that the respondents do not perceive the parliament as being the cause of the bad economic situation.

For economic self-assessments the picture gets reversed. Comparing the odds-ratios of column (1) and (2) of table 8 with the Wald test yields significant differences over all categories. Respondents in 2006 are therefore more likely to exhibit higher trust in national parliament than their counterparts of 2012, vis-à-vis their assessments of their own economic status. This shows the difference in the nature of the two economic assessments.

Table 7

The effect of the Great Recession on the impact of assessments of the economy on trust in national and European parliaments

		Trust in national parliament		Trust in the European parliament	
		2006	**2012**	**2006**	**2012**
		(1)	(2)	(3)	(4)
satisfaction with the current status of the economy in [country]	very dissatisfied	0.021** (0.002)	0.019** (0.002)	0.124** (0.012)	0.083** (0.007)
	1	0.051** (0.005)	0.047** (0.004)	0.169** (0.017)	0.128** (0.012)
	2	0.079** (0.007)	0.074** (0.007)	0.241** (0.022)	0.202** (0.018)
	3	0.120** (0.011)	0.121** (0.011)	0.334** (0.030)	0.292** (0.025)
	4	0.182** (0.016)	0.188** (0.016)	0.428** (0.038)	0.404** (0.035)
	5	0.210** (0.018)	0.243** (0.021)	0.453** (0.039)	0.473** (0.040)
	6	0.325** (0.029)	0.376** (0.033)	0.652** (0.056)	0.694** (0.059)
	7	0.436** (0.038)	0.558** (0.049)	0.824** (0.070)	0.865 (0.074)
	8	0.563** (0.050)	0.674** (0.061)	0.957 (0.083)	1.022 (0.090)
	9	0.826* (0.080)	0.838 (0.085)	1.083 (0.103)	0.994 (0.099)
	very satisfied	0.946 (0.106)	1	0.996 (0.109)	1

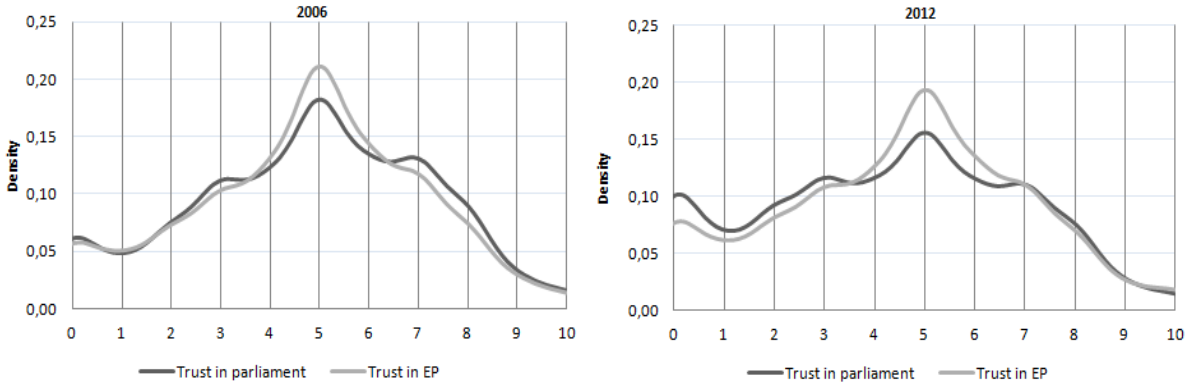
Notes: All results were obtained by the application of an ordered logistic regression. The model applied controls for demographic determinants and includes as explanatory variables (time*economic assessments) dummies in the periods 2002, 2004, 2006, 2008, 2010 and 2012 (2014 is excluded). * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

For instance, a respondent evaluating his own economic situation as being “difficult” in 2006 is 1.98 times more likely to have higher *trust in parliament* than a respondent evaluating his own economic situation as being “very difficult” in 2012. A respondent in 2012 with the same evaluation of his own economic status (“difficult”) is only 1.39 times more likely to exhibit a higher *trust in parliament* than a respondent who is in a “very difficult” situation. Thus the respondents are in 2012 less likely to have more trust in the national parliament than in 2012, vis-à-vis their economic self-assessment.

When evaluating the impact of the Great Recession on the impact of economic assessments on *trust in the European parliament,* the results change considerably when compare to *trust in national* parliament. Column (3) and (4) of table 7 reveal that the probability of exhibiting a higher trust in the European parliament decreases over the course of the economic crisis

for respondents with a low satisfaction with the current status of the economy (*assessment of economy*=00-03). The results of the Wald test indicate that for these low categories the odds-ratios of 2006 and 2012 are not the same, while for all higher categories they are the same. This shows that *trust in national parliament* and *trust in the European parliament* have a different nature and agents are indeed able to distinguish between the two. This opposes the finding of Armingeon & Ceka (2013) who closely tie *trust in national parliament* and *trust in the European parliament.* The relationship between trust in these two institutions may also have broken off during the course of the sovereign debt crisis, in which the European institutions got another level of importance and were more in the spotlight of the media. This "break-up" can be better understood when looking at Graph 3. Especially in the lower categories a divergence between the two sorts of trust becomes visible.

Graph 3: Comparison of densities of trust in parliament and trust in the European parliament in 2006 and 2012



Notes: Trust in EP = Trust in the European parliament. Both variables are scaled 00-10. For further variable specification please refer to Appendix A. Kernel density function, Gaussian specification, bandwidth=0.5. For further information refer to Methodology A.

This is in line with the result the descriptive statistics offered, in particular that *trust in the European parliament* is more permanently affected by the crisis than *trust in national parliament.* Roth (2009) argues similarly that the impact of the financial crisis on "the European Commission and the European parliament is not replicated at the national level" (p. 208).

The evaluation of the impact of economic self-assessments on *trust in the European parliament* in 2006 and 2012 using the Wald test yields an increased, more negative effect. Over all four categories the respondents of 2012 are less likely to have a higher *trust in the European parliament* than their counterparts of 2006 as table 8 column (3) and (4) show.

Table 8

The effect of the Great Recession on the impact of economic self-assessment on trust in national and European parliaments

		Trust in national parliament		Trust in the European parliament	
		2006	**2012**	**2006**	**2012**
		(1)	(2)	(3)	(4)
assessment of the own economic situation	Living comfortably	3.290** (0.134)	3.002** (0.121)	2.980** (0.122)	2.733** (0.111)
	Coping	2.428** (0.095)	2.060** (0.079)	2.472** (0.098)	1.999** (0.077)
	Difficult	1.981** (0.089)	1.390** (0.057)	2.218** (0.101)	1.336** (0.055)
	Very difficult	1.331** (0.083)	1	1.449** (0.091)	1

Notes: All results were obtained by the application of an ordered logistic regression. The model applied controls for demographic determinants and includes as explanatory variables (time*economic self-assessments) dummies in the periods 2002, 2004, 2006, 2008, 2010 and 2012 (2014 is excluded). * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

Therefore, both economic perceptions play an increased role during the economic crisis when regarding *trust in the European parliament*.

Satisfaction with democracy is the most impacted dependent variable of assessments of the economy, with an economically very dissatisfied respondent being 99.3 % more likely to exhibit less *satisfaction with democracy*, than an economically very satisfied respondent. Over the course of the economic crisis this impact got weakened in almost all categories as table 12 column (1) and (2) reveal (besides *satisfaction with economy* = 10), corresponding with a higher *satisfaction with democracy* vis-à-vis *assessments of economy*. This result shows the diversity with which respondents react on different fields of the political spectrum. Furthermore, the problematic interpretation of the *satisfaction with democracy* variable has to be raised once again. The countries most affected by the sovereign debt crisis in Europe, the "PIIGS", the effect of the Great Recession on the impact of assessments of the status of the economy on *satisfaction with democracy* has a similar nature as for the whole sample. The odds-ratios stay largely the same, and in the case they do not, the value for the 2012 respondents is higher, corresponding to a higher probability of having a higher level of *satisfaction with* democracy. Considering the deep cuts to the political independence of these countries due to fiscal and financial restrictions, this is more than surprising (cf. table 15).

Furthermore, the economic self-assessments affect *satisfaction with democracy* more than

any of the other analyzed dependent variables (even more than *redistribution*, which is quite surprising). Table 13 column (1) and (2) show that this effect decreases over the course of the economic crisis. For all four categories the odds-ratios increase, corresponding to a higher probability to be more satisfied with the way democracy works in 2012 than in 2006, vis-à-vis economic self-assessments.

4.2.2.2 Immigration

The impact of economic perceptions on the variable *Immigration: Economy* stays either the same or is more positive in the crisis. In five of the eleven categories the odds-ratios stay statistically the same, while in six the odds-ratios increase (cf. table 16 column (1) and (2)). Respondents in 2012 evaluate therefore the impact of immigration on the economy more positively than in the reference year of 2006, given their level of satisfaction with the economy.

The odds-ratios of the economic self-assessment decrease only slightly over the course of the crisis years (cf. table 14 column (1) and (2)). Besides the respondents living comfortably on their income in 2006 and 2012, who have statistically the same odds-ratios in evaluating the impact of immigration on the economy, all other categorized respondents exhibit a decreased probability in assessing immigration as being positive for the economy. This asymmetry in effects is similar to the one observed when analyzing *trust in national parliament.*

Respondents evaluating whether immigration makes the country a better place to live in, are in 2012 over all categories more likely to have a more positive opinion than respondents in 2006, vis-à-vis their assessments of the economy (cf. table 16 column (3) and (4)). Considering the development of the mean of *Immigration: Country*, this is hardly surprising, since despite the economic crisis, the mean decreased in 2010 only slightly referring to the basis year of 2006 and increased in 2012 even above the level of 2006. This development reflects also on the impact of economic self-assessments. While for *Immigration: Economy* the probability of evaluating immigration more positively decreased, for *Immigration: Country* it increased significantly among the respondents assessing their own economic situation as being “comfortable” or “coping on” (cf. table 14 column (3) and (4)). However, for respondents assessing their economic status as difficult, the probability to evaluate the impact immigrants have on the living conditions in their country as more positive, decreases.

For those respondents living in a very difficult situation the odds-ratio in 2006 is insignificant, hinting no change over the course of the Great recession.

The last immigration variable which corresponds to the evaluation of the cultural impact of immigration yields yet another development. In 2012 the respondents of almost all categories evaluated the cultural impact of immigration more positively than their counterparts in 2006, vis-à-vis their assessments of the economy (cf. table 16 column (5) and (6)). The development of the impact of economic self-assessments can be compared to the impact they have on the variable *Immigration: Country*. The crisis made respondents, whose economic situation was good, more positive about the cultural impact of immigration (cf. table 14 column (5) and (6)). However, respondents exhibiting economic problems (economic self-assessment = difficult) have a decreased probability in seeing the impact of immigration on the cultural life as more positive. As in *Immigration: Country*, the respondents in the worst perceived economic conditions show no change between 2006 and 2012 in evaluating *Immigration: Culture*.

These different developments taken by the impact of economic perceptions on the three immigration variables show how complex and divers the attitudes towards immigration are. While the economic component of immigration is seen more critical in times of economic turmoil, the other two sides of immigration are seen completely different. This relationship between economic turmoil and the evaluation of the economic impact of immigration is straightforward, although the economic crisis was by no means influenced or aggravated by immigration. The anxiety for decreased living standards and the perceived threat immigrants pose to workers are triggering these sentiments (Goldstein & Peters. 2014). This anxiety reflects the development of the impact of egocentric economic perceptions on *Immigration: Economy*. Interestingly the development of economic self-assessments, concerning the other two immigration variables is split up into two directions. The economically well-situated respondents show an increasing trend in probability of evaluating these two immigration aspects positive, while respondents experiencing a difficult economic time exhibit an antithetic trend. Maybe this effect can be marked as a “zeitgeist” effect, in which a well situated, open minded and progressive part of the society is built and the economical more unfortunate part of society creates sentiments against immigrants. This conclusion would be in line with the political trends we experience right now in Europe. Surely for a more convincing conclusion there should be a more extensive analysis of this matter.

4.2.2.4 Redistribution

The impact of assessments of the economy on preferences for redistribution did change during the crisis in the lower categories (assessment of the economy = 0-2) towards a higher probability of demanding less redistribution (cf. table 12 column (3) and (4)). For the more satisfied respondents with the status of the economy (assessment of the economy = 6-10), the picture gets reversed towards a higher probability of agreeing to further measures of redistribution.

The analysis of the impact of economic self-assessments regarding redistribution yields yet another situation, as table 13 column (3) and (4) display. The economic well-situated ("comfortable" and "coping on") exhibit a higher probability in agreeing with further measures of redistribution in the crisis year 2012. While for the respondents perceiving their situation as "difficult" or "very difficult" the odds-ratios do not change over the course of the Great Recession. The crisis seems to have triggered an increased sense of altruism, in which the richer want to share their income with the lower parts of the society.

5. Conclusion

This paper has investigated the impact of assessments of the economy and economic self-assessment on social preferences and attitudes. Furthermore, this article provides an extensive analysis whether and to which extent this impact of economic perceptions changed over the course of the Great Recession. Employing the rich and detailed data set of the European Social Survey provided extremely precise results.

Evaluating the development of means of the investigated variables yields insights in the responsiveness of social preferences and attitudes, and economic perceptions to times of economic turmoil. While assessments of the economy experienced a crash in 2008, economic self-assessments only decreased slightly over the course of the economic recession. Trust in policy decreased considerably during the crisis, while attitudes towards immigration were on a stable level, or decreased slightly. The respondents favoured measures of redistribution increasingly in the economic recession, sustaining the trend which started already in the beginning of my observation period. Furthermore, respondents' opinion about refugees changed from 2002 to 2014 in a positive direction.

The results obtained by the ordered logit regression underline the importance of economic perceptions for the formation of social preferences and attitudes. Especially in the formation of political trust and satisfaction with democracy assessments of the economy dominate. Satisfaction with democracy is the variable most influenced by both economic assessments. The results indicate the deep cut going through the society, where respondents being very dissatisfied with the current status of the economy are 99.3% more likely to be less satisfied with the way democracy works, than respondents being very satisfied with the economy. The significance of these results is no "corner" phenomenon. Even respondents who are somewhat satisfied with the economy (assessment of the economy = 5) are 90% more likely to be less satisfied with the way democracy works than respondents who answered assessment of the economy=10. But not only satisfaction with democracy is heavily influenced by economic assessments; all three branches of variables exhibit a highly significant impact of economic perceptions: politics, redistribution, and immigration and refugees.

The analysis of whether and to what extent the impact of economic perceptions on these social preferences changed provides useful insights in the dynamics of this crisis.

Assessments of the economy dropped heavily with the beginning of the crisis (about 25%), while none of the dependent variables decreased nearly as much. This indicates that the formation of social preferences and attitudes is slower than changes in economic perceptions, which react promptly to such a severe financial crash as in 2008. The amount of respondents answering that they are dissatisfied with the status of the economy (assessments of the economy = 0,1,2) doubled in the economic recession.

Despite this development there are considerable changes in the impact of assessments of the economy on at least some of my variables. While for trust in parliament and satisfaction with democracy the respondents are more likely to have more trust or satisfaction in the Great Recession, vis-à-vis their economic assessments. Contrary to that, the probability of exhibiting more trust in the European parliament decreased for the respondents who are less satisfied with the economy. This finding combined with the development of the mean of trust in the European parliament, which seems to detach itself considerably of trust in national parliament, indicates that the Great Recession and especially the European Sovereign Debt crisis, lead to a more distinct evaluation of the European parliament. Scholars have argued that agents are not able to distinguish between national and supra-national institutions (Anderson (1998), Armingeon & Ceka (2013), Schmitt (2005)). The results obtained lead more in the direction of Risse (2010), who detects a European identity in agents, which complements their national identities, or Roth (2009), who finds that trends in European institutions is not transmitted to trust in national institutions, or vice versa.

Evaluating the impact of economic-self assessments yields more intuitive results. The odds-ratios decreased for most of the analyzed variables during the crisis (cf. table 17). Respondents in any economic situation exhibited less trust in parliaments on the national and European level. The impact of economic self-assessments on two of the three immigration variables exhibits a very peculiar and interesting pattern (*Immigration: Country*, *Immigration: Culture)*. While the odds-ratios for the respondents in a good financial situation increased, the odds-ratios for the "poorer" decreased. This indicates a widening crack in the society, in which the well-situated judge immigration more and more generous, while the economic "losers" of the development build up an increasing refusal of immigrants. In the evaluation of another topic the society seems to grow more together: redistribution. The respondents evaluating their own economic situation as good are more in favour of

redistribution than before the crisis, as well as respondents having a more positive view on the economic situation in their country.

For future research it would be fruitful, if a longer time frame would be employed. Furthermore, it could be beneficial to investigate the same research questions only focusing on single countries. To investigate the *refugee* variable could be interesting when there is more data available.

6. Appendix

6.1 Appendix A: Description of Variables

Satisfaction with economy/Assessment of the economy: On the whole how satisfied are you with the present state of the economy in [country]? (00- Extremely dissatisfied; 10- Extremely satisfied)

Economic self-assessment: Which of the descriptions on this card comes closest to how you feel about your household's income nowadays? (01- Living comfortably on present income; 02- Coping on present income; 03- Finding it difficult on present income; 04- Finding it very difficult on present income)

Trust in parliament: How much do you personally trust in [country]'s parliament? (00- No trust at all; 10- Complete trust)

Trust in European parliament: How much do you personally trust in the European parliament? (00- No trust at all; 10- Complete trust)

Satisfaction with democracy: On the whole. how satisfied are you with the way democracy works in [country]? (00- Extremely dissatisfied. 10- Extremely satisfied)

Immigration: Economy: Would you say that it is generally bad or good for [country]'s economy that people come to live here from other countries? (00- Bad for economy; 10- Good for economy)

Immigration: Country: Is [country] made a worse or better place to live by people coming to live here from other countries? (00- Worse place to live; 10- Better place to live)

Immigration: Culture: Would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries? (00- Cultural life undermined; 10- Cultural life enriched)

Redistribution: The government should take measures to reduce differences in income levels. (01- Agree strongly; 05- Disagree strongly)

Refugees: Some people come to this country and apply for refugee status on the grounds that they fear persecution in their own country. Please say how much you agree or disagree that: 'the government should be generous in judging people's applications for refugee status'. (01- Agree strongly; 05- Disagree strongly)

Education: Years of education.

Left-right scale: In politics people sometimes talk of "left" and "right". where would you place yourself on this card. where 0 means the left and 10 means the right?

Sex: 01- Male. 00- Female

Unemployment history: Have you ever been unemployed and seeking work for a period of more than 3 months? (01- Yes; 00- No; (excluding all respondents currently unemployed))

Born in Country: 01- Respondent is born in corresponding country; 00- Otherwise

Member of Minority: 01- Respondent belongs to minority; 00- Otherwise

Age: Age of respondent

Age squared: Age squared of respondent

6.2. Appendix B: Tables

Table 9

Composition of sample

	2002	2004	2006	2008	2010	2012	2014	Total
Albania						x		1
Austria	x	x	x				x	4
Belgium	x	x	x	x	x	x	x	7
Bulgaria			x	x	x	x		4
Croatia				x	x			2
Cyprus			x	x	x	x		4
Czech Republic	x	x		x	x	x	x	6
Denmark	x	x	x	x	x	x	x	7
Estonia		x	x	x	x	x	x	6
Finland	x	x	x	x	x	x	x	7
France	x	x	x	x	x	x	x	7
Germany	x	x	x	x	x	x	x	7
Greece	x	x		x	x			4
Hungary	x	x	x	x	x	x		6
Iceland		x				x		2
Ireland	x	x	x	x	x	x	x	7
Israel	x			x	x	x		4
Italy	x					x		2
Kosovo						x		1
Latvia				x				1
Lithuania					x	x		2
Luxemburg	x	x						2
Netherlands	x	x	x	x	x	x	x	7
Norway	x	x	x	x	x	x	x	7
Poland	x	x	x	x	x	x	x	7
Portugal	x	x	x	x	x	x		6
Romania				x				1
Russia			x	x	x	x		4
Slovakia		x	x	x	x	x		5
Slovenia	x	x	x	x	x	x	x	7
Spain	x	x	x	x	x	x		6
Sweden	x	x	x	x	x	x	x	7
Switzerland	x	x	x	x	x	x	x	7
Turkey		x		x				2
UK	x	x	x	x	x	x		6
Ukraine		x	x	x	x	x		5
# observations	24532	27073	27254	35791	33239	36074	21742	

Notes: Minimum amount of observations per country and year: 26. Maximum amount of observations per country and year: 2626. Average amount of observations per country and year: 1210.

Table 10

The effect of assessments of the economy on trust in the European parliament sorted by region

		EMU	EU	non EMU	All
		(1)	(2)	(3)	(4)
satisfaction with the current status of the economy in [country]	very dissatisfied	0.060** (0.004)	0.071** (0.004)	0.125** (0.006)	0.088** (0.004)
	1	0.105** (0.007)	0.119** (0.006)	0.187** (0.009)	0.145** (0.006)
	2	0.158** (0.011)	0.178** (0.009)	0.252** (0.012)	0.208** (0.008)
	3	0.224** (0.015)	0.253** (0.013)	0.346** (0.016)	0.291** (0.011)
	4	0.307** (0.021)	0.346** (0.018)	0.451** (0.021)	0.390** (0.015)
	5	0.331** (0.023)	0.375** (0.019)	0.480** (0.021)	0.419** (0.016)
	6	0.499** (0.034)	0.558** (0.028)	0.673** (0.030)	0.610** (0.023)
	7	0.618** (0.042)	0.693** (0.035)	0.781** (0.035)	0.735** (0.027)
	8	0.699** (0.048)	0.814** (0.042)	0.933 (0.042)	0.854** (0.032)
	9	0.884 (0.068)	0.958 (0.055)	0.992 (0.049)	0.972 (0.041)
	very satisfied	1	1	1	1
Demographic Variables					
Education		1.033** (0.001)	1.033** (0.001)	1.027** (0.002)	1.030** (0.001)
Left-right scale		1.032** (0.003)	1.025** (0.002)	1.001 (0.003)	1.016** (0.002)
Unemployment history		0.910** (0.011)	0.903** (0.009)	0.922** (0.013)	0.913** (0.008)
Sex		0.867** (0.009)	0.864** (0.007)	0.864** (0.010)	0.865** (0.007)
Born in country		0.745** (0.016)	0.754** (0.014)	0.838** (0.019)	0.792** (0.012)
Member of minority		1.050 (0.030)	1.041** (0.025)	1.097** (0.030)	1.084** (0.021)
Age		0.944** (0.002)	0.947** (0.001)	0.962** (0.002)	0.952** (0.001)
Age squared		1.001** (0.000)	1.000** (0.000)	1.000** (0.000)	1.000** (0.000)
Pseudo R2		0.040	0.041	0.034	0.037
Number of Observations		113747	166364	91958	205705

Notes: For description of variables please refer to Appendix A. Column 1: Only Euro-zone members. Column 2: Only EU members. Column 3: Only non Euro-zone members. Column (4): All countries contained in sample included. * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

Table 11

Gini Coefficient in Europe

	2004	2006	2008	2010	2012	2014
EU (27 countries)		30,3	31	30,4	30,4	30,9
Euro area (18 countries)	30,7	29,3	30,5	30,2	30,3	30,9
Austria	25,8	25,3	27,7	28,3	27,6	27,6
Belgium	26,1	27,8	27,5	26,6	26,5	25,9
Bulgaria		31,2	35,9	33,2	33,6	35,4
Croatia				31,6	30,9	30,2
Cyprus		28,8	29	30,1	31	34,8
Czech Republic		25,3	24,7	24,9	24,9	25,1
Denmark	23,9	23,7	25,1	26,9	28,1	27,5
Estonia	37,4	33,1	30,9	31,3	32,5	35,6
Finland	25,5	25,9	26,3	25,4	25,9	25,6
France	28,2	27,3	29,8	29,8	30,5	29,2
Germany		26,8	30,2	29,3	28,3	30,7
Greece	33	34,3	33,4	32,9	34,3	34,5
Hungary		33,3	25,2	24,1	26,9	27,9
Iceland	24,1	26,3	27,3	25,7	24	22,7
Ireland	31,5	31,9	29,9	30,7	29,9	30,7
Italy	32,9	32,1	31,2	31,7	32,4	32,4
Latvia		38,9	37,5	35,9	35,7	35,5
Lithuania		35	34,5	37	32	35
Luxembourg	26,5	27,8	27,7	27,9	28	28,7
Malta		27,1	28,1	28,6	27,1	27,7
Netherlands		26,4	27,6	25,5	25,4	26,2
Norway	25,2	29,2	25,1	23,6	22,5	23,5
Poland		33,3	32	31,1	30,9	30,8
Portugal	37,8	37,7	35,8	33,7	34,5	34,5
Romania			36	33,3	33,2	34,7
Slovakia		28,1	23,7	25,9	25,3	26,1
Slovenia		23,7	23,4	23,8	23,7	25
Spain	31	31,9	32,4	33,5	34,2	34,7
Switzerland			31,1	29,6	28,8	
Sweden	23	24	24	24,1	24,8	25,4
United Kingdom		32,5	33,9	32,9	31,3	31,6
Turkey		44,8	43			

Notes: In green are the countries referred to as “core” countries. Source: Eurostat

Table 12

The effect of the Great Recession on the impact of assessments of the economy on satisfaction with democracy and redistribution

		Satisfaction with democracy		Redistribution	
		2006	**2012**	**2006**	**2012**
		(1)	(2)	(3)	(4)
satisfaction with the current status of the economy in [country]	very dissatisfied	0.007** (0.001)	0.012** (0.001)	0.355** (0.036)	0.431** (0.038)
	1	0.015** (0.002)	0.027** (0.003)	0.411** (0.045)	0.566** (0.052)
	2	0.026** (0.002)	0.041** (0.004)	0.563** (0.053)	0.640** (0.056)
	3	0.044** (0.004)	0.071** (0.006)	0.684** (0.061)	0.698** (0.060)
	4	0.071** (0.006)	0.119** (0.011)	0.861 (0.076)	0.762** (0.066)
	5	0.096** (0.009)	0.158** (0.014)	0.850* (0.074)	0.823* (0.071)
	6	0.152** (0.014)	0.259** (0.023)	1.020 (0.089)	0.875 (0.075)
	7	0.241** (0.021)	0.381** (0.034)	1.063 (0.091)	0.946 (0.082)
	8	0.384** (0.034)	0.532** (0.048)	1.231* (0.107)	1.016 (0.090)
	9	0.583** (0.057)	0.770** (0.078)	1.385** (0.133)	1.130 (0.114)
	very satisfied	1.012 (0.118)	1	1.312** (0.145)	1

Notes: All results were obtained by the application of an ordered logistic regression. The model applied controls for demographic determinants and includes as explanatory variables (time*assessments of the economy) dummies in the periods 2002, 2004, 2006, 2008, 2010 and 2012 (2014 is excluded). Redistribution is coded as follows: 1 – agree strongly, 5 – disagree strongly. For further description of variables please refer to Appendix A. * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

Table 13

The effect of the Great Recession on the impact of economic self-assessment on satisfaction with democracy and redistribution

		Satisfaction with democracy		Redistribution	
		2006	2012	2006	2012
		(1)	(2)	(3)	(4)
assessment of the own economic situation	Living comfortably	2.366** (0.096)	2.677** (0.107)	2.904** (0.128)	2.445** (0.106)
	Coping	1.653** (0.064)	1.894** (0.072)	1.925** (0.082)	1.657** (0.069)
	Difficult	1.190** (0.053)	1.289** (0.052)	1.356** (0.066)	1.317** (0.059)
	Very difficult	0.768** (0.047)	1	0.956** (0.066)	1

Notes: All results were obtained by the application of an ordered logistic regression. The model applied controls for demographic determinants and includes as explanatory variables (time*economic self-assessments) dummies in the periods 2002, 2004, 2006, 2008, 2010 and 2012 (2014 is excluded). * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level. For details of variables please refer to Appendix A.

Table 14

The effect of the Great Recession on the impact of economic self-assessment on immigration

		Immigration					
		Economy		Country		Culture	
		2006	**2012**	**2006**	**2012**	**2006**	**2012**
		(1)	(2)	(3)	(4)	(5)	(6)
assessment of the own economic situation	Living comfortably	2.489** (0.103)	2.535** (0.103)	2.156** (0.089)	2.713** (0.111)	1.825** (0.075)	2.132** (0.086)
	Coping	1.841** (0.073)	1.717** (0.067)	1.727** (0.069)	1.845** (0.072)	1.469** (0.058)	1.587** (0.061)
	Difficult	1.510** (0.069)	1.298** (0.054)	1.505** (0.069)	1.391** (0.058)	1.340** (0.061)	1.254** (0.052)
	Very difficult	1.159* (0.075)	1	1.109 (0.070)	1	1.105 (0.069)	1

Notes: All results were obtained by the application of an ordered logistic regression. The model applied controls for demographic determinants and includes as explanatory variables (time*economic self-assessments) dummies in the periods 2002, 2004, 2006, 2008, 2010 and 2012 (2014 is excluded). * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level. For details of variables please refer to Appendix A.

Table 15

The effect of the Great Recession on the impact of assessments of the economy on satisfaction with democracy in the "PIIGS" countries

		Satisfaction with democracy	
		2006	**2012**
		(1)	(2)
satisfaction with the current status of the economy in [country]	very dissatisfied	0.013** (0.007)	0.016** (0.008)
	1	0.022** (0.012)	0.030** (0.015)
	2	0.038** (0.020)	0.050** (0.025)
	3	0.065** (0.034)	0.075** (0.038)
	4	0.099** (0.051)	0.113** (0.058)
	5	0.120** (0.061)	0.151** (0.078)
	6	0.157** (0.080)	0.213** (0.110)
	7	0.222** (0.114)	0.321* (0.171)
	8	0.333* (0.171)	0.408 (0.233)
	9	0.566 (0.301)	0.395 (0.254)
	very satisfied	0.427 (0.245)	1

Notes: For further specification of variables please refer to Appendix A. * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level. "PIIGS" = Portugal, Ireland, Italy, Greece, Spain.

Table 16

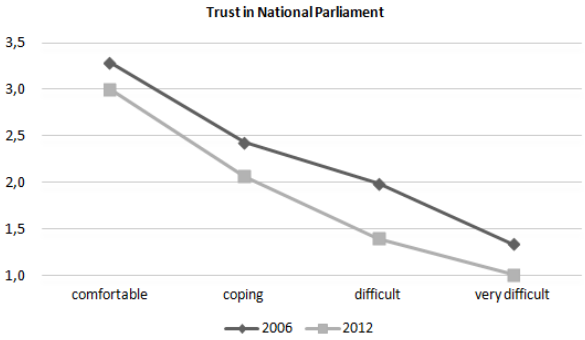
The effect of the Great Recession on the impact of economic assessments on attitudes towards immigration

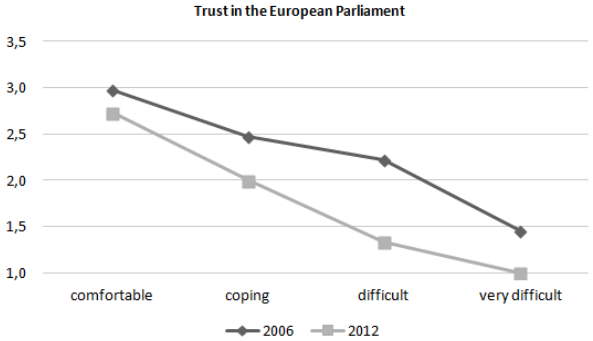
satisfaction with the current status of the economy in [country]	Immigration					
	Economy		Country		Culture	
	2006	**2012**	**2006**	**2012**	**2006**	**2012**
	1	2	3	4	5	6
very dissatisfied	0.098** (0.010)	0.114** (0.010)	0.097** (0.010)	0.135** (0.012)	0.203** (0.021)	0.239** (0.021)
1	0.144** (0.015)	0.147** (0.014)	0.148** (0.016)	0.178** (0.016)	0.249** (0.026)	0.282** (0.026)
2	0.180** (0.017)	0.200** (0.018)	0.188** (0.018)	0.221** (0.019)	0.267** (0.025)	0.324** (0.028)
3	0.214** (0.019)	0.245** (0.021)	0.218** (0.020)	0.265** (0.023)	0.305** (0.027)	0.394** (0.034)
4	0.296** (0.027)	0.290** (0.025)	0.292** (0.026)	0.328** (0.028)	0.412** (0.036)	0.455** (0.039)
5	0.325** (0.029)	0.339** (0.030)	0.307** (0.027)	0.362** (0.031)	0.388** (0.033)	0.468** (0.040)
6	0.397** (0.035)	0.456** (0.040)	0.385** (0.033)	0.501** (0.043)	0.476** (0.041)	0.580** (0.050)
7	0.491** (0.043)	0.559** (0.049)	0.442** (0.038)	0.577** (0.050)	0.552** (0.047)	0.637** (0.055)
8	0.579** (0.051)	0.618** (0.056)	0.503** (0.044)	0.630** (0.056)	0.615** (0.053)	0.671** (0.059)
9	0.619** (0.060)	0.751** (0.076)	0.466** (0.045)	0.670** (0.067)	0.634** (0.061)	0.739** (0.074)
very satisfied	0.834 (0.093)	1	0.607** (0.067)	1	0.834 (0.092)	1

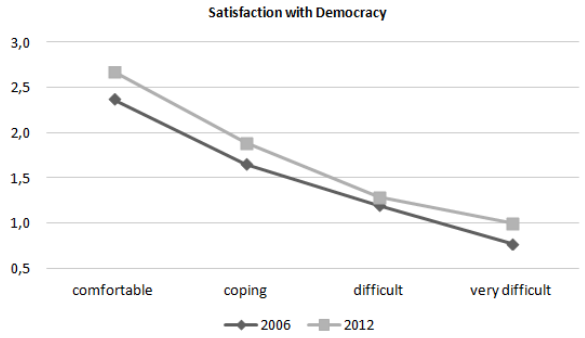
Notes: For further specification of variables please refer to Appendix A. * Significantly different from zero at 5%-level. ** Significantly different from zero at 1%-level.

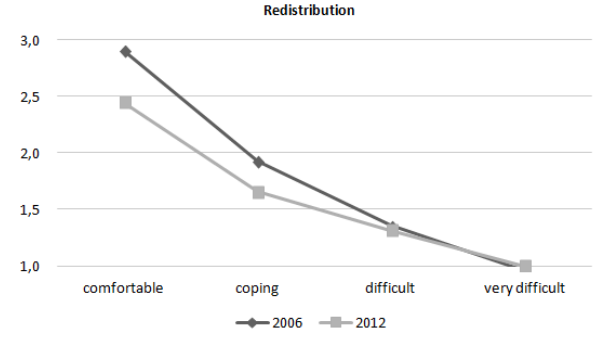
Table 17

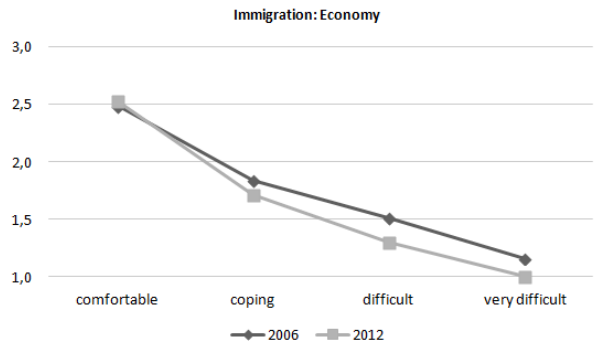
The impact of economic self-assessments on social preferences and attitudes in 2006 and 2012

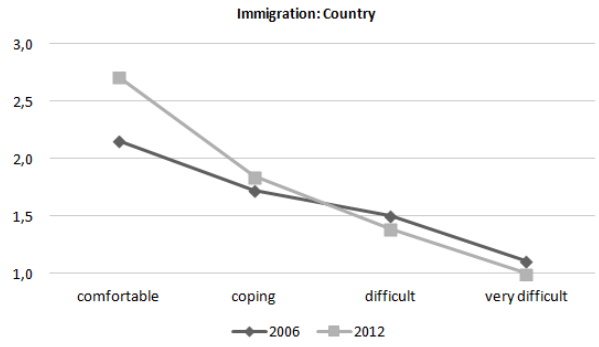


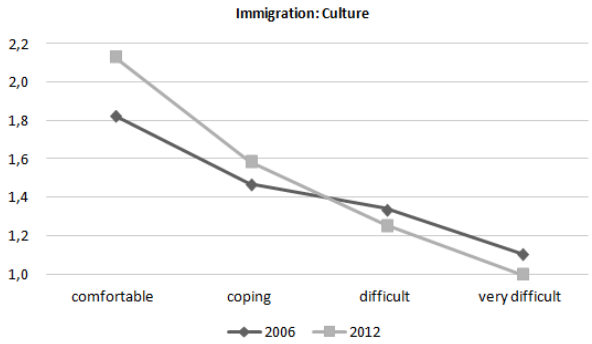












Notes: Displayed are odds-ratios of economic self-assessments when regressed towards the independent variables. For variable specification please refer to Appendix A.

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