The legacy of the recession: values and societal issues

Research note no 7/2014

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Abstract

This Research Note investigates how people's behaviour and perceptions in the Member States may have changed during the Great Recession and whether there are trends over time in the social climate, attitudes towards immigrants, trust in institutions and in others, demand for redistribution that can be identified. The questions examined include how far the socio-economic determinants of attitudes vary between countries; whether changes in macroeconomic conditions (the economic crisis) have a direct effect on attitudes; whether an increased demand for redistribution is evident as countries experience different phases of the crisis; how far there is a correlation between economic hardship and attitudes. These questions are assessed on the basis of both the European Social Survey (ESS) and various waves of the Eurobarometer survey. The most recent ESS data are from 2012, while the most recent EB data come from June 2014 (EB 81.5).

The analysis shows that trust in European institutions has declined while generalized trust did not massively change in the various EU Member states. Attitudes towards immigrants became less favourable on average between 2008 and 2010, bouncing back in the following years, while life satisfaction was lower in 2012 only in the most severely crisis-stricken countries. Macro-economic factors, such as the evolution of the unemployment rate across the EU countries, appear to be closely related to the above changes.

Perceptions of widespread poverty selectively increased in the various countries, however, causal attribution of poverty shifted towards societal (as opposed to personal) attributes. Demand for redistribution did not increase in general. Rather, expectations towards non-state solutions of provisions of jobs, of education etc. have been increased. The country variance in welfare attitudes is large.

1. Introduction: motivation and research questions

Most EU Member States have experienced little if any growth in income per head and improvement in living standards over the crisis period and for many people, especially those of working age, both have declined and inequalities have widened. At the same time, and partly because of this, trust in governments at both the national and EU level and in their capacity to bring about any significant improvement has diminished. However, the tendency towards rising inequalities and a reduction in social capital (trust in government and other institutions, etc.) are part of a longer term trend. It is, therefore, hard to disentangle the effects of economic circumstances over the past few years from the latter.

This Research Note is concerned to answer the following questions with the aim of gaining a better understanding of the underlying issues and the factors affecting them:

- How has trust in fellow citizens and in national and EU institutions changed over recent years in the different Member States?
- How does the perception of, and satisfaction with, economic conditions in the various Member States relate to actual (objective) developments in economic circumstances in the different countries?
- Is there a causal relationship between economic developments and trust in institutions and if so what is its nature? Do changes in trust in institutions follow changes in economic conditions or does a higher level of trust help countries avoid even larger fluctuations in GDP and real income?
- To what extent have attitudes towards migrants been affected by the crisis?
- Has the economic crisis led to change in perceptions of poverty and policies to reduce poverty in the various EU Member States?
- Has the economic crisis lead to an increased demand for state intervention (such as increased redistribution) in Member States or to a more unfavourable attitude towards it? More generally, has the crisis affected the way social risks like poverty are perceived, and, if so, has this led to greater popular demand for social spending and other forms of intervention?
- How far are there similarities or differences between countries in the way that attitudes have changed over the crisis period?
- What are the social policy implications of the findings? Do the data available make it possible to generalise? What can be said about the acceptability of redistribution, welfare systems and the popular support of their current functions?

This Research Note examines trends over the recent past in the social climate, trust and attitudes towards redistribution as well as the relationship with various macro-economic and social factors, such as growth, labour market conditions and changes in inequality and the risk of poverty.

An attempt is also made to identify socio-economic gradients as regards the attitudes concerned. The analysis, therefore, also examines the effect of personal characteristics and circumstances (e.g. age, education level and employment situation) on attitudes. In addition, a multivariate analysis is undertaken and regressions which include the relevant social climate and attitudinal variables are estimated on pooled EU data. The aim is to investigate how far cross-country differences in attitudes can be attributed to country fixed effects, macro trends, micro characteristics and interactions between them.

In analysing the Eurobarometer (EB) surveys, the focus is on changes in the social climate, on perceptions of poverty, the labour market situation and attitudes towards these across the EU. In particular, it examines changes in perceptions of poverty based on various (Special and Flash) EB surveys that have been carried out over the period since 2008, centring on people's assessment of the way that poverty has changed – whether it has tended to increase or decline – and the number of people

considered to be affected. We also analyse EB81.5, containing a special block on social climate, poverty perceptions and some welfare attitudes.

The analysis of the European Social Surveys (2008, 2010, and 2012 rounds) covers both the cross-country and within-country variations in the factors affecting trust in institutions and in people, attitudes towards migrants, and life satisfaction in the Member States. In particular, it examines the relationship between changes in social attitudes and various macro indicators (income, unemployment, non-standard employment, income inequality and so on). Special attention is paid to changes in the attitudes in countries most affected by the crisis as compared with the changes in countries with more favourable economic circumstances.

2. Changes in inequality and social attitudes in the EU Member States in the longer term: a summary

To understand potential links between inequality and its social and cultural consequences, there is a need to consider and define all three elements: (1) "inequality", (2) "consequences" and (3) "links".

2.1 Inequality developments – a 30 year perspective

The evolution of income inequalities has been analysed in a number of recent papers (see various chapters in Ward et al, 2009, Salverda et al, ed, 2014, Nolan et al, ed, 2014). A long term assessment of the time trend in inequality is presented in Tóth 2013, 2014. This latter paper, based on the GINI Inequality and Poverty Database[1], covers the EU Member States[2] over the time period 1980- 2010. The main findings of that paper are as follows:

- Inequality has increased on average across the countries included in the analysis, with the range of Gini coefficients being at a higher level at the end of the period (from 0.228 to 0.373) than it was at the beginning (from 0.20 to 0.33).
- The growth in inequality varied across the various countries. While in certain countries (such as Austria, Belgium, France, Italy, Ireland, Slovenia) the level of inequality remained largely unchanged or fluctuated around the same level, in others it increased substantially.
- The most dramatic increases in inequality were experienced in some of the transition countries (Bulgaria, Estonia, Lithuania, Latvia, Romania and Hungary have shown steep increases at certain points in time) and, to a lesser but still significant extent by the Nordic countries, most notably Sweden and Finland where it accumulated gradually over time.
- In some of the countries (like Estonia, Bulgaria and Hungary, for example) spells of reduction in inequality were also observed for shorter or longer periods.
- For some countries, there is even evidence of shifts between inequality regimes. The Nordic countries or the Baltic States, in particular, were included in different sections of the international ranking at the end of the period than at the beginning.

A summary of changes in inequality as measured by Gini coefficients (averaged over the periods denoted in the table) are set out in Table 1.

[1] For further details of the GINI project, please visit www.gini-research.org. Major findings of the project are summarized in Salverda et al 2014, Nolan et al, 2014.

[2] Tóth (2014) also covers experiences and developments in countries outside Europe (US, Canada, Korea, Japan and Australia).

Table 1 Change in inequality levels (Gini coefficient values) during three periods- EU Member States + five non-European countries

Gini coefficients	1980-1984	1996-2000	2006-2010
above 0.350		Estonia, Portugal, Romania, United States	Latvia, Lithuania, Portugal, Romania, United Kingdom United States
0.301 to 0.350	Greece, Spain, United States	Australia, Bulgaria, Canada, Greece, Hungary, Ireland, Italy, Korea Latvia, Lithuania, Romania, Spain, United Kingdom	Australia, Bulgaria, Canada, Estonia, Greece, Ireland, Italy, Korea, Poland, Spain,
0.251 to 0.300	Australia, Canada, Denmark, France, Germany (West), Italy, Japan, United Kingdom	Austria, Belgium, Denmark, France, Germany and Germany (West), Japan, Luxembourg, Poland, Netherlands, Sweden	Austria, Belgium, Denmark, Finland, France, Germany and Germany (West), Hungary, Korea, Luxembourg, Netherlands, Sweden,
up to 0.250	Austria, Bulgaria, Czech Republic Estonia, Finland, Hungary, Latvia, Netherlands', Lithuania, Slovakia Sweden	Czech Republic, Finland, Germany (East), Slovakia, Slovenia	Czech Republic, Germany (East), Slovakia, Slovenia,
no data	Belgium, Germany (East), Ireland, Korea, Luxembourg, Portugal, Romania, Slovenia		Japan

Source: Tóth, 2014, based on GINI Inequality and poverty database. Gini coefficients are for person equivalent net disposable household incomes, country Ginis averaged for all available years in the given period. Original Gini figures are taken from country chapters in Nolan et al. eds, 2014.

2.2 Time trends and historical difference in social attitudes in various parts of Europe – a general overview

In a policy paper commissioned by DG Employment on the basis of the GINI project (Tóth, 2013), for each EU Member State (except Malta and Cyprus), an integrated country profile was prepared, containing inequality trends and poverty developments, together with some objective and subjective background information which might be relevant for assessing social attitudes in EU Member States. The focus was on an analysis of longer term trends – which are also essential for understanding shorter-term developments, such as the effect of the crisis in particular.

Indicators of (relative) poverty, inequality (of equivalent disposable household income, the developments of economic development, measured by Gross National Income GNI per capita, PPP (current international dollars) and changes in patterns of employment (measured by the overall activity rates of the population) were set out for each country, accompanied by a group of variables aimed at measuring trust and legitimacy. A measure of generalised trust in the country was expressed by the proportion of those agreeing with the statement that "in general most people can be trusted in [the country of the respondent]". Other measures included the degree of

confidence in the legal system, the political system (in parliament and in democracy as a whole) and the EU (measured as approval of EU membership)[3].

When analysing longer term trends in the various country groupings[4] under examination, different patterns were found (Tóth 2013):

- **In the Continental European Welfare States** (Austria, Belgium, France, Germany[5] and Luxembourg) in general the strain on the State (measured by the share of those supporting the contention that the State should have a larger responsibility for the provision of social welfare for people) is shown to be relatively small compared with other countries. At the same time, in none of the countries was there an exceptionally high sense of tension between the poor and the rich or very high levels of xenophobia. In terms of indicators of trust and legitimacy, all the countries were around the EU average[6].
- The group of the **Nordic countries** (Denmark, Finland and Sweden) together with the Netherlands are renowned for their high level of trust in, and the legitimacy of, their political systems. This was also shown by the country profiles. In most case the perceived tension between the poor and the rich was found to be among the lowest in the EU as was the prevalence of xenophobic views. Although the level of trust in institutions was very high in all members of this group, in Denmark it was lower than in the other countries. It is perhaps the continued growth of income inequality which is reflected in the larger proportion of people dissatisfied with the level of inequality in Finland and Sweden (and this seems to go together with the view that the reason for poverty lies in social injustice, rather than in personal characteristics like laziness).
- The members of the third grouping, the **English-speaking liberal EU countries** (UK and Ireland) share some very characteristic values. In both countries, for example, interpersonal (generalised) trust is at relatively high

[3] For the full wording and response categories, see the Annex to Tóth 2013.)
- Evaluation of income inequalities 1: % agree inequalities are too large (response to a question with a trade-off presented to people asked – the other end of the scale being "inequalities are needed for incentive reasons").
- Evaluation of income inequalities 2: % agree inequalities are too large (with no trade-offs presented)
- Government responsibility: % agree Government should take more responsibility
- Tensions in society (between the poor and the rich)
- Getting ahead: % agree hard work brings success
- The causes and reasons of poverty (poverty attribution) % agree: Because they are lazy or lack will power
- The causes and reasons of poverty (poverty attribution) % agree: Because there is much injustice in our society
- Xenophobia: % agree no further immigrants should be allowed into the country

[4] It would have been tempting to classify countries according to some widely quoted classifications of welfare regimes like the ones based on the seminal Esping-Andersen (1990) piece, however, for many reasons in the GINI project a simpler but related typology was used. Five Continental European welfare states belonged to the first group, three Nordic countries and the Netherlands to the second, five English-speaking liberal countries (of which from this presentation the US, Canada and Australia are omitted, leaving only the UK and Ireland) to the third, four Mediterranean countries to the fourth and nine Central and Eastern European countries to the fifth. Non-European countries such as the two Asian countries (Korea and Japan) and three English speaking liberal countries (Australia, Canada and the US) are excluded from the following, as is the separate analysis of East and West Germany. For the Central and Eastern European countries further breakdowns are made – according to the different patterns they show as measured by basic features of their inequality and poverty developments.

[5] Since the paper analysed long term trends, this now refers to Western Germany at the time it existed.

[6] There were some exceptional figures for these countries, however:
- in Austria and in Germany, the share of those claiming that incomes should be more equal was among the highest in Europe
- Germany and France stand out as having a large share of people claiming that poverty is a result of social injustice (close to 60%), whereas in the other three countries, the share is much lower (just over 40%).
- In Belgium, support for the EU membership was higher than elsewhere in this group in the period.

level along with trust in the legal system. At the same time, the demand for more government responsibility was found to be low, while (in)tolerance of inequality was around the average and xenophobia was relatively low. They differed very much, however, in their support for the EU (in Ireland it was high, in the UK, low).

- For some of the **Mediterranean countries** – the fourth country grouping – unfortunately no complete coverage of the trust data is available. As regards attitudes towards inequality, the proportion of people proposing that the state should have a larger role was very large in Greece, Italy and Spain, though relatively low in Portugal. The same holds for the perceived causes of poverty. In Greece, Italy and Spain, the proportion regarding poverty as a result of laziness was very small while it was very large in Portugal.
- Some of the transition countries in Central and Eastern Europe display substantial volatility over the observation period in terms of inequality (see country chapters in Nolan et al. eds. 2014, Tóth, 2014), while others show markedly different trajectories. A cluster of **six countries**: Estonia, Lithuania, Latvia on the one hand and Bulgaria, Romania and Hungary on the other, **experienced a large increase (over 10 Gini points) in inequality in just a few years**, while in the other group, consisting of Czech Republic, Slovakia, Poland and Slovenia, the increase in inequality was much smaller.
- The **Baltic** countries, **Estonia** and **Lithuania** and **Latvia** experienced a large increase in inequality over the period. In the 1980s, they were among the most equal parts of Europe but by the end of the 1990s they were among the most unequal. Despite this, frustration with the level of inequality (measured by the share of people agreeing that "inequalities are too large") remained relatively modest in all of the countries. In addition, none of the other indicators of attitudes towards inequality show extreme values in comparison with the other EU countries. It is unfortunate that trust and legitimacy indicators are not available for Latvia and Lithuania.
- In **Bulgaria** and (to a lesser extent) in **Romania,** the increase in inequality has taken place in waves, while in **Hungary,** developments in inequality were different (but there were also spells of increase and decrease). When comparing attitudes towards inequality in the three countries, the most striking similarity is the very high rates of those attributing poverty to social injustice. In addition, both in Hungary and in Romania (but, interestingly, not in Bulgaria) the level of frustration with the current level of inequalities is very high (among the highest in the EU). The highest sense of tension between the rich and the poor is in Hungary. Historical data on trust are not available, unfortunately, for Romania, but for the other two countries both general trust and trust in institutions are very low.
- **Czech Republic, Poland, Slovakia** and **Slovenia** were able to avoid large changes in inequality during the transition process. The level of trust is not as low in this group of countries as in Hungary or – most notably – in Bulgaria. It should be stressed, however, that approval of EU membership was already much lower in the Czech Republic and Slovenia before 2010 than in many other Member States. It is also notable that dissatisfaction with the level of inequality seems to be the highest in these two countries where the level of inequality is, currently, among the lowest in the EU.

2.3 The links: vulnerable assumptions about causality

There has recently been an intensive academic and political debate on the potential adverse effects of rising inequality in advanced countries. The influential book of Wilkinson and Pickett (2009) which argues that income inequality is harmful to society in a variety of ways, has prompted much interest in academia and in public debate. The GINI project also devoted much attention to investigating the impact of increasing inequality on core aspects of social and political life. Articles in Salverda et al (eds., 2014) have shown that while levels of social solidarity and trust are correlated with

levels of inequality if considered in isolation, the relationship is weak or non-existent if other factors are taken into account and if a longitudinal analysis is undertaken. Overall, it was concluded that "the findings with respect to inequality and various aspects of social cohesion highlight the importance of seeing income inequality as only one facet of social stratification" (Salverda et al, eds. 2014). It has been suggested, therefore, that there is a need to be very cautious in deriving conclusions for causality running in either directions – from inequality to attitudes or the other way round.

Without going into further methodological details here, there is a conscious attempt in the following to avoid the attributing causality in respect of the relationship between economic trends and inequality, on the one hand, and social attitudes on the other. Instead, the Research Note is largely limited to presenting correlations, though it also recognised that in some cases even these can be misleading in the absence of a better understanding of other factors that might lie behind them and that it is inherently unsatisfactory to represent complex social phenomena in terms of relationships between two variables[7].

3. Changing social attitudes in the EU during the crisis and its aftermath (an analysis of ESS data)

The analysis below focuses on two main questions:

- How have **social attitudes** (defined more broadly than the phenomena captured by a social climate index) **changed** among EU citizens over the period 2008-2012?
- Do these changes reflect the broad economic and social situation in the countries examined as expressed in **macro-level variables** such as employment, income, inequality and at-risk-of-poverty rate?

The main source of information in this section is the European Social Survey (ESS) dataset. The ESS is a cross-national survey of attitudes and beliefs of citizens across the European continent. Round 1 was released in 2002, with subsequent rounds taking place every two years. In this study, data are used from three rounds: 4 (2008), 5 (2010) and 6 (2012).[8] Trends in social attitudes are then examined in the light of changes in macro-level indicators (drawn from the Eurostat online database).

Specifically, the following analysis consists of three parts, in an attempt to provide answers to the above two questions. In the first part, the focus is on the changes in the countries' sample means of five social attitudes indicators during the period between 2008 and 2012; in the second part, the bivariate relationships of these changes with changes in relevant macro variables are examined; finally, the last part focuses on individual-level responses and provides a multivariate analysis of them, utilizing both micro and macro-level variables.

3.1 Countries, measures and methods

Countries: The focus is on those countries for which data are available for at least two of the three ESS rounds analysed here.[9] This restricts the sample to the 19 countries for which data exist for all three years (Belgium, Bulgaria, Cyprus, the Czech

[7] The funny but very much telling examples of apparent but spurious correlations and potential fake interpretations are presented here: http://www.tylervigen.com/. Despite its provocative nature, the basic messages will have to be taken seriously.

[8] All ESS data and documentation are publicly available (upon registration) at www.europeansocialsurvey.org. Data for Rounds 4 and 5 are extracted from the ESS Cumulative Data Wizard (see http://www.europeansocialsurvey.org/downloadwizard) and correspond to the ESS Cumulative Edition 1.1. These data are then merged with Round 6 data (edition 2.0).

[9] All data and analyses reported here are weighted using the relevant design weight for each country and round (variable "dweight" in ESS) when country level estimates are presented. These weights are combined with population size weights when data are pooled across all countries in the sample in the multivariate analysis (variable "pweight" in ESS).

Republic, Germany, Denmark, Estonia, Spain, Finland, France, Great Britain, Hungary, Ireland, Netherlands, Poland, Portugal, Sweden, Slovenia and Slovakia), plus two more countries for which data are available for 2008 and 2010 but not 2012 (Greece and Croatia). Austria, Italy, Latvia, Lithuania and Romania are excluded from the analysis that follows, as data for these countries are available only for one of the three years. No data exist in any of the three ESS rounds for the remaining EU28 countries (Luxembourg and Malta).

Social attitudes: Responses to questions asked in all three ESS rounds/years are analysed and five measures are constructed, grouped into three categories.

Trust: ESS respondents are asked to report their level of trust in various national and international institutions. Possible answers range from 0 ("No trust at all") to 10 ("Complete trust"). The first measure constructed is "Trust in the European Union Parliament". The second measure is the average individual score of responses to ESS questions regarding trust in each of three national political institutions, i.e. the country's parliament, politicians, and political parties. The second measure is referred to here as "Trust in national political institutions" and also ranges between 0 and 10.

With respect to generalised trust, the variable "Trust in people" is constructed by the individual responses to the statement "Most people can be trusted or you can't be too careful in dealing with people". The possible answers range between 0 ("You can't be too careful") and 10 ("Most people can be trusted").

Attitudes towards migrants: ESS respondents are asked the following question: "Is [country] made a worse or a better place to live by people coming to live here from other countries?" The possible answers range between 0 ("Worse place to live") and 10 ("Better place to live"). This variable is named "Attitudes towards immigrants".

Life satisfaction: The variable for "Life satisfaction" is constructed (see also Keller 2010 and 2011, who constructs a personal satisfaction index including "Life satisfaction" as one of its components) by using the answers to the question "How satisfied are you with your life as a whole nowadays?" Potential answers range from 0 ("Extremely dissatisfied") to 10 ("Extremely satisfied").

For all the above measures, estimated sample means for each country and year are given in the Annex (Table A1).

Macro-level variables: As mentioned above, social attitudes are related to changes in macro-variables related to labour market performance, income, inequality and poverty. With respect to labour market performance, the unemployment and the activity rate, as well as two variables capturing labour market flexibility (temporary and part-time employment), are used. Gross adjusted household income per capita (in PPS) by country is used as a measure of income. Finally, the Gini coefficient, the at-risk-of-poverty rate and the S80/S20 income quintile share ratio (the ratio of total equivalised disposable income earned by the top quintile to the bottom quintile) are used as the inequality and relative poverty indicators.

Methods: The results are presented in line with the questions indicated above and in three parts. First, changes in social attitudes in selected countries over the period 2008-2012 are examined, as well as in the two sub-periods, 2008-2010 and 2010-2012. For each country and period the percentage change in the average value of each social attitude measure is calculated along with the statistical significance of this change (see Keller 2010 and Keller 2011 for a similar approach regarding the social climate using Eurobarometer data). The results and observed patterns across countries are then discussed in some detail.

Secondly, the relationship of changes in social attitudes to changes in the economic and social environment is examined, capturing the latter by the macro-level variables described above. This is done through the examination of scatter plots mapping the bivariate relationship between social attitudes and macro-level variables. Bivariate

regression lines are also presented. Scatter plots are presented for statistically significant correlations only, but other patterns are discussed where relevant.[10]

The final part of the analysis proceeds with a series of multivariate regressions at the individual level. The impact of the macro-level indicators on social attitudes is now examined in models that pool the micro data from all the countries and years together and also control for basic individual-level socio-demographic characteristics (sex, age, immigrant status, household size, type of household location, labour market status and education), as well as time and country dummies. The analysis in this stage is intended to provide further insights into how far the evolution of social attitudes over recent years is related to the socio-demographic composition of population in EU countries, as well as to the macro-environment. Keeping in mind the caveats concerning causality mentioned in Section 2.3 above, the multivariate analysis can throw light on the direction of causation of the results as well as on the extent to which the simple bivariate relationships examined in the previous stage of analysis conceal the influence of other factors.[11]

The choice of the relevant macro-level variables to be correlated with social attitudes follows theoretical considerations and empirical findings that have been identified as important in some of the relevant literature. For example, life satisfaction has been shown to be determined by income levels (absolute and relative) (Clark et al., 2008; Di Tella et al. 2003; Di Tella and MacCulloch, 2008) and labour market conditions (Oswald, 1997; Di Tella et al., 2003), while the same holds for broader measures of the social climate (Keller 2010; 2011). Moreover, attitudes towards immigrants have been found to be less favourable when unemployment is higher (Meuleman et al., 2009), while generalized trust has been found to be negatively related to income inequality (see e.g. Bjørnskov, 2006). On the other hand, the micro-level indicators included in the last step of the analysis are standard socio-demographic controls typically included in multivariate analyses of social attitudes (see e.g. Tóth and Keller, 2013, for redistributive preferences; and Markaki and Longhi, 2013, and Hatton, 2014, for attitudes towards immigrants).

Before proceeding with the presentation of the findings, one last caveat concerning the analysis should be mentioned here. Following standard practice in the relevant literature (see references above), the analysis focuses on the average level recorded for each ordinal social attitudes' measure, thus examining only the central tendency of the distribution of each measure within European countries. Although not presented here, it should be noted that an examination of the extremes of the distributions of the social attitudes measures (percentages of people recording either the highest or the lowest categories) produced results very similar to the ones set out below.

[10] All analysis here is conducted by examining changes in social attitudes in the three periods 2008-2010, 2010-2012 and 2008-2012, in relation with *contemporaneous* changes in the macro variables of interest. Using lagged values for changes in macro variables produced similar results. As income distribution data were only available for up to 2011 at the time of writing, we examine changes in inequality and poverty in 2007-2011. It should also be noted that a per capita household income time series is not available for Croatia and this country is excluded from the respective scatter plots. The results, however, are very similar if a GDP per capita measure (which includes Croatian data) is used instead.

[11] An alternative method at this stage would estimate separate regression models for each EU country with only micro-level variables and year dummies included in the models. Then, at a second stage, the estimated year coefficients could be regressed on the macro-level indicators. In this way, the "composition-adjusted" year coefficients as indicators of the trends in social attitudes would be examined. Similar methodologies have been used by Di Tella et al. (2001) for happiness-life satisfaction, Markaki and Longhi (2013) for attitudes towards immigrants at the regional EU level, and Hatton (2014), again for attitudes towards immigrants. All these studies, however, rely on significantly more observations at the second stage due to a larger country/region and/or time dimension. Our limited number of country-year observations means that the scope for a detailed and robust analysis along these lines is much more limited.

3.2 Changes in social attitudes: mean values

Before focusing on the *changes* in social attitudes in the period under consideration, it should be noted that the cross-country differences in the *levels* of attitudes are in line with well-documented findings in the relevant literature. As is evident in Annex Table A1, trust in institutions (EU parliament and national) is highest in the Nordic countries and in the Netherlands, while it is particularly low in the countries of the South and the newer Member States. The residents of the latter countries also seem to trust more the EU parliament than their national political institutions. A similar geographical pattern is also observed concerning generalized trust, with the highest levels reported in Denmark, Finland and Sweden and the lowest in Bulgaria, Portugal, Slovenia and Greece. Exceptionally unfavourable attitudes towards immigrants are observed in Greece, while xenophobia becomes less prevalent as one moves to the north of Europe. Finally, the residents in Central and Northern European countries are the most satisfied with their lives.

Turning now to *changes* in social attitudes, Tables 2 and 3 present the changes that have taken place in EU countries since 2008. In most countries, both **trust in EU parliament and trust in national political institutions declined** during both 2008-2010 and 2010-2012. Concerning trust in EU parliament, this finding is in line with well-known recent trends in "Euroscepticism" (see Ritzen et al. 2014). The largest decline in trust is observed in Greece in 2008-2010 (-42% for trust in the EU parliament, -44% for trust in national political institutions). Large declines, in both 2008-2010 and 2010-2012 (and hence in 2008-2012), also took place in Cyprus, Spain and Portugal, reflecting rapidly deteriorating economic conditions there, as well as in Slovakia. Relatively large declines are also evident in Croatia (in 2008-2010, and mainly with respect to trust in national institutions). In some countries, important differences can be seen between the two periods. In Bulgaria, Estonia and Poland both measures of average trust increased in 2008-2010 but decreased, sometimes quite sharply, in later years. In Hungary trust in national political institutions remained constant in 2010-2012, following a very large increase between 2008 and 2010 (corresponding, probably, to landslide political election results in 2010 in the country). The opposite pattern occurred in Belgium, Germany, Denmark, Britain and Ireland (with some of these changes not being statistically significant). In Slovenia very large reductions in the first period were followed by stability in the second.

Changes were much less pronounced as regards trust in people. This reflects the fact that generalised trust is much more embedded in the values system of each country (Bjørnskov, 2006), as opposed to institutional trust which is much more volatile and cyclical in nature. Substantial reductions are observed only in Cyprus (-15%) and Slovenia (-9%) between 2008 and 2010. While in Cyprus there was relative stability in 2010-2012, leading to a decline over the period as a whole (2008-2012), in Slovenia a large increase took place between 2010 and 2012 (15%) which resulted in an overall increase in trust in people there (+5% in 2008-2012). Relatively large increases in trust in people are also observed in Hungary (during both periods) and in Croatia (in 2008-2010).

An interesting picture emerges regarding attitudes towards **immigrants** over the period examined. In general, **attitudes in most countries became less favourable in 2008-2010, but bounced back in 2010-2012**, which in many countries may correspond to the economic contraction in the former period and the recovery in the latter. On the other hand, in Cyprus, positive attitudes declined significantly in both periods (-19% and -17%), which may reflect worsening economic conditions in each. Significantly positive changes during both periods took place in Spain and, especially, Hungary – which in 2008 had reported the second least favourable attitudes among all countries analysed here except Greece (see Annex Table A1).

Finally, in several countries, life satisfaction followed contrasting trajectories over the two periods. In many other cases, changes were insignificant. Exceptions were Germany (where life satisfaction increased significantly in both periods), Greece and Croatia (where significant declines were observed in 2008-2010, the only period for

which we have data). In sum, **average life satisfaction was slightly higher in 2012 relative to 2008** in all countries for which we have data for all years except Cyprus, Spain and Ireland. Finally, it should be noted that the results presented for life satisfaction in Table 3 are in line with those reported by Keller (2011) for 2008-2011 regarding changes in a broader index of personal satisfaction.

Table 2: Changes in social attitudes in the European Union (2008-2012)

Country	Trust in the EU parliament			Trust in national political institutions			Trust in people		
	% change 2008-2010	% change 2010-2012	% change 2008-2012	% change 2008-2010	% change 2010-2012	% change 2008-2012	% change 2008-2010	% change 2010-2012	% change 2008-2012
Belgium	-2.1	1.8	-0.4	-3.1*	11.1*	7.6*	-1.8	1.2	-0.6
Bulgaria	4.3	-12.0*	-8.2*	24.0*	-10.4*	11.1*	1.7	-4.3	-2.6*
Cyprus	-15.9*	-15.7*	-29.1*	-20.0*	-28.6*	-42.8*	-15.4*	-5.5	-20.1*
Czech Rep	2.8	-2.7	0.0	-3.4	-1.4	-4.7	-4.4*	-2.8	-7.1*
Germany	-6.5*	8.5*	1.4	-5.4*	12.2*	6.2*	-4.3*	5.5*	1.0
Denmark	-1.6	3.8*	2.2	-9.8*	3.5*	-6.6*	-1.2	2.1*	0.9
Estonia	3.2	-8.5*	-5.6*	8.4*	-7.7*	0.0	4.2*	-3.5*	0.6
Spain	-9.9*	-12.3*	-21.0*	-16.7*	-26.2*	-38.5*	2.8*	0.6	3.4*
Finland	-1.2	-1.0	-2.1	-9.5*	9.0*	-1.3	0.8	1.2	2.0*
France	-7.6*	-3.5	-10.8*	-8.9*	0.0	-8.9*	-3.4	3.0	-0.5
Great Britain	-6.7*	2.1	-4.7*	-3.7*	4.9*	1.0	1.1	0.2	1.3
Greece	-42.0*	…	…	-44.2*	…	…	2.6	…	…
Croatia	-7.8*	…	…	-24.0*	…	…	8.2*	…	…
Hungary	17.6*	-11.2*	4.5	62.0*	-0.6	61.1*	9.5*	7.1*	17.4*
Ireland	-13.7*	7.4*	-7.4*	-4.7*	-1.22	-5.8*	-4.4*	-1.9	-6.2*
Netherlands	-2.6	-2.4	-4.9*	-0.8	-2.5*	-3.2*	1.0	-1.0	0.0
Poland	4.2*	-10.4*	-6.6*	13.9*	-14.3*	-2.4	5.6*	-5.5*	-0.2
Portugal	-15.0*	-13.3*	-26.3*	-17.0*	-11.3*	-26.4*	2.2	-3.2	-1.1
Sweden	6.4*	-5.0*	1.1	8.7*	-5.7*	2.6*	-0.2	-5.2*	-5.4*
Slovenia	-22.6*	2.1	-20.9*	-33.8*	0	-33.8*	-8.8*	15.5*	5.3*
Slovakia	-16.3*	-15.7*	-29.4*	-21.2*	-4.3	-24.6*	-1.2	-3.7	-4.9*

Note: An asterisk denotes a statistically significant change at the 0.05 level.

Source: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0) and authors' calculations.

Table 3: Changes in social attitudes in the European Union (2008-2012)

Country	Attitudes towards immigrants			Life satisfaction		
	% change 2008-2010	% change 2010-2012	% change 2008-2012	% change 2008-2010	% change 2010-2012	% change 2008-2012
Belgium	-4.9*	1.7	-3.3*	3.3*	-0.9	2.3*
Bulgaria	-3.1	-2.0	-5.0*	10.7*	-9.4*	0.2
Cyprus	-19.2*	-16.7*	-32.7*	0.9	-3.9*	-3.1*
Czech Rep	-8.7*	4.7*	-4.5*	-3.6*	4.1*	0.3
Germany	-2.3*	7.7*	5.2*	4.3*	4.8*	9.4*
Denmark	2.5	3.6*	6.1*	-2.0*	2.6*	0.6
Estonia	-0.9	9.2*	8.2*	5.2*	-5.2*	-0.3
Spain	4.9*	3.3*	8.4*	-0.1	-5.3*	-5.5*
Finland	-3.1*	4.9*	1.6	0.0	2.1*	2.1*
France	-3.8*	-2.0	-5.6*	-0.2	3.0*	2.8*
Great Britain	1.1	1.7	2.9	1.3	2.5*	3.8*
Greece	-14.2*	…	…	-5.8*	…	…
Croatia	2.9	…	…	-5.1*	…	…
Hungary	10.6*	5.3*	16.5*	10.2*	-4.1*	5.7*
Ireland	-7.3*	6.5*	-1.3	-7.4*	2.9*	-4.8*
Netherlands	1.0	3.6*	4.6*	1.0	1.7*	2.7*
Poland	-1.4	1.9	0.5	1.9	1.7	3.6*
Portugal	-4.9*	-5.4*	-10.0*	3.7*	1.0	4.7*
Sweden	5.0*	-2.2*	2.7*	0.6	-0.5	0.1
Slovenia	-4.0*	11.7*	7.3*	0.6	0.1	0.7
Slovakia	-1.5	-9.6*	-10.9*	0.5	5.1*	5.6*

Note: An asterisk denotes a statistically significant change at the 0.05 level.

Source: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0) and authors' calculations.

3.3 Macro correlates of social attitudes: bivariate relationships

This section deals at a first level with the second question posed in the introduction: to what extent do the changes in social attitudes described above reflect the broad economic and social situation in the EU Member States?

The variables capturing the economic and social environment are grouped into three categories: 1) Income, measured by gross adjusted household income per head in PPS; 2) labour market performance and non-standard work, measured by the unemployment rate, the activity rate, the part-time employment rate, and the temporary employment rate; and 3) inequality and poverty, measured by the Gini coefficient, the S80/S20 income quintile share ratio, and the poverty rate.

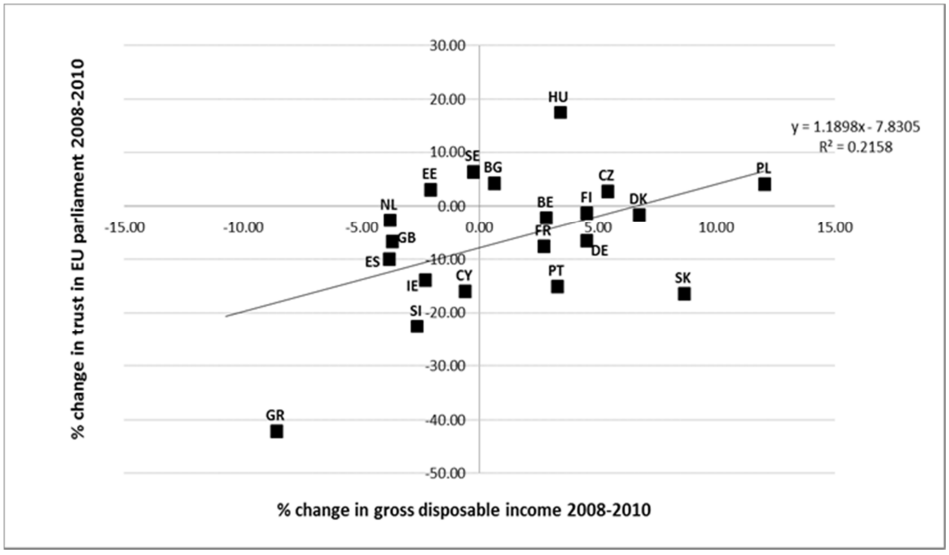
Country-level bivariate regressions of changes in social attitudes on changes in macro-level variables are estimated for all three periods of interest: 2008-2010, 2010-2012 and 2008-2012. Only statistically significant correlations are presented in scatter plots. However, other results are also discussed where relevant.

3.3.1 Changes in income

Nearly half the countries in the sample experienced a decline in household income per head between 2008 and 2010. In 2010-2012, falling incomes was a feature only in a handful of countries, namely Cyprus, Spain, Greece, Ireland and Portugal. Changes in trust in institutions seem to be correlated to some extent with changes in disposable income. In particular, changes in average scores of trust in the EU Parliament are positively correlated with changes in income in 2008-2010 and over the 2008-2012 period as a whole, but not in 2010-2012 (see Figures 1 and 2). The 2010-2012 result is driven to a large extent by a group of countries that experienced a decline in trust in

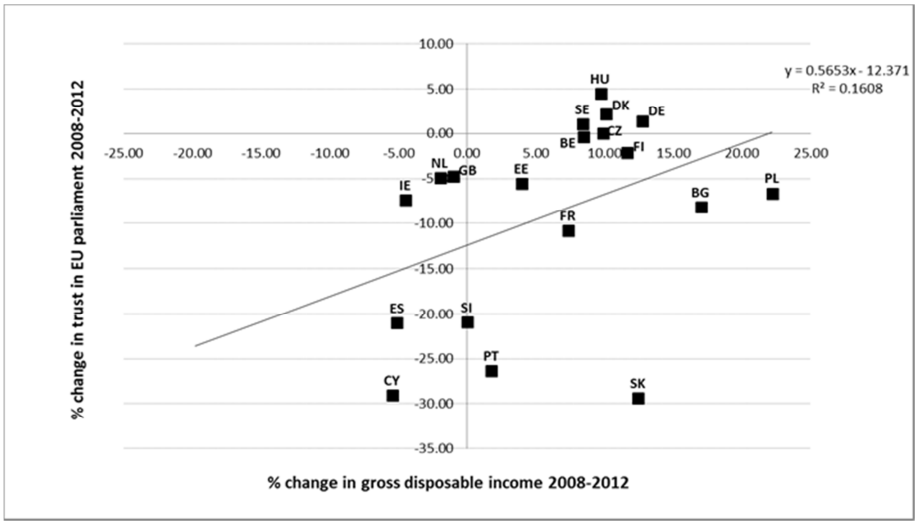
EU Parliament while their income was increasing in this period (mainly Bulgaria, Poland and Hungary). Moreover, there is a statistically significant relationship for 2008-2012 between changes in income and changes in average trust in national political institutions (see Figure 3), although that relationship is weaker when examined in each of the two periods separately.

Figure 1: Income and trust in EU parliament in 2008-2010



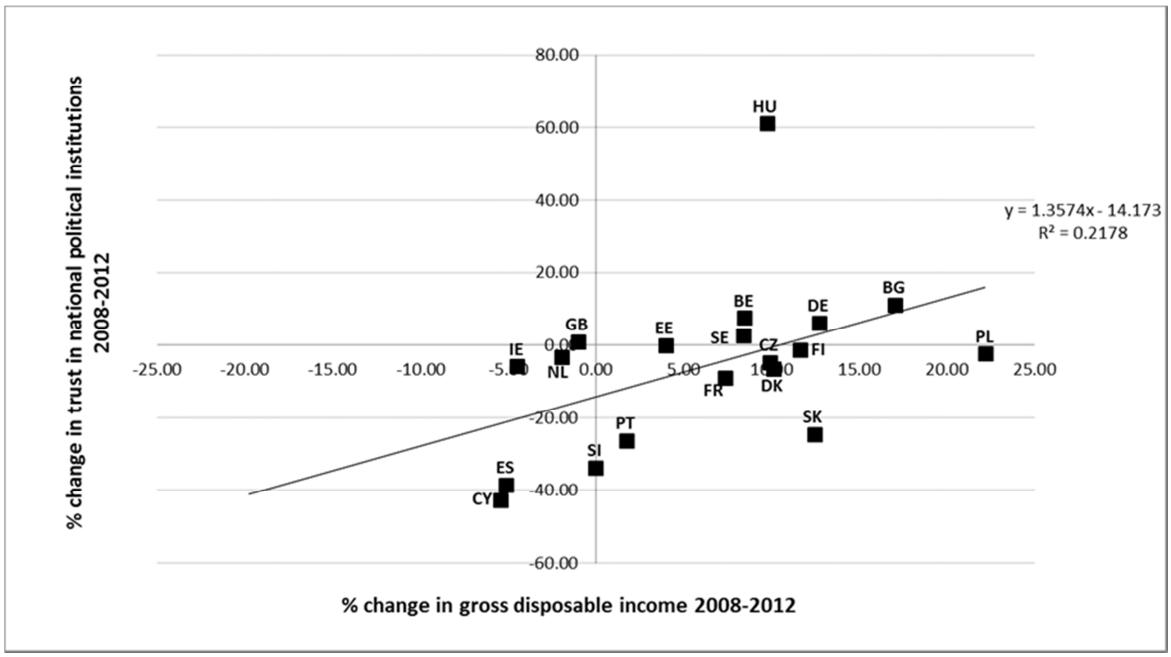
Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 2: Income and trust in EU parliament in 2008-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

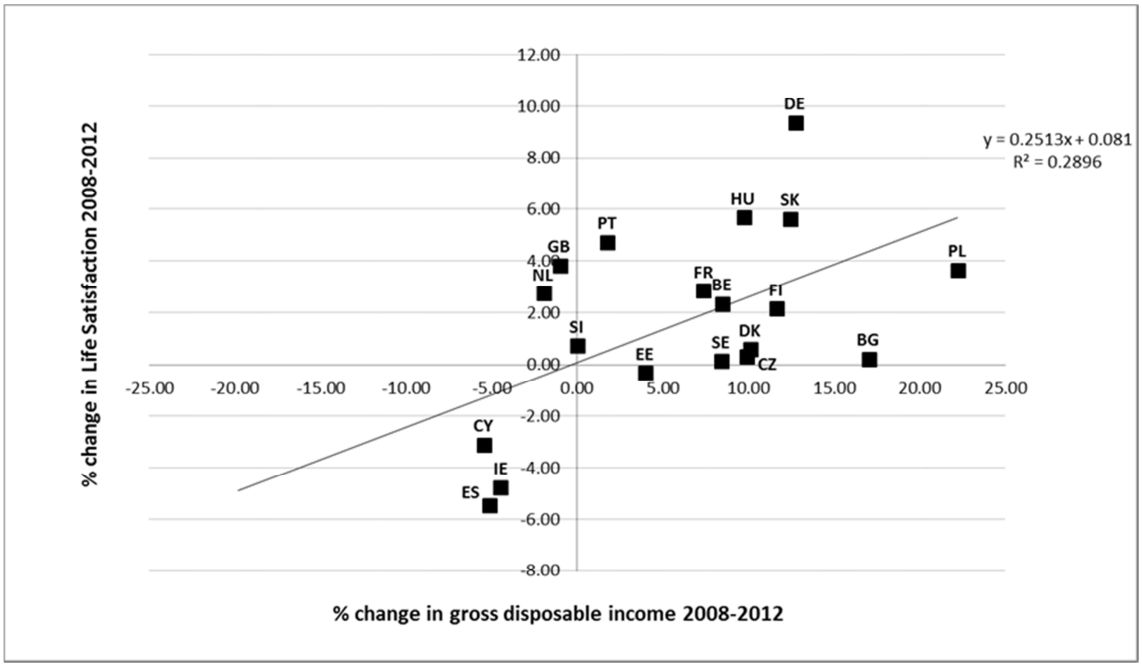
Figure 3: Income and trust in national political institutions in 2008-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

As mentioned in the previous section, changes in generalised trust are much less pronounced. Moreover, while in general these are positively related to changes in income, the relationship is weak and never statistically significant. This also holds for the "attitudes towards immigrants" measure. Finally, trends in life satisfaction over the whole period are positively and strongly associated with changes in income (Figure 4), though not when the two periods (2008-2010 and 2010-2012) are examined separately.

Figure 4: Income and life satisfaction in 2008-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

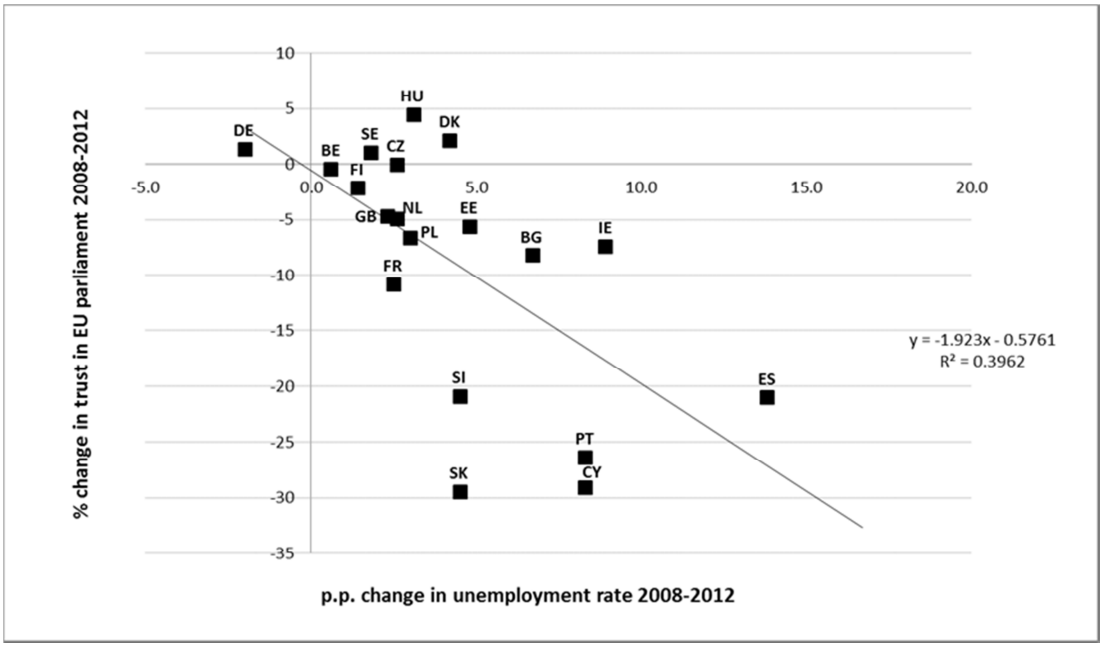
3.3.2 Changes in labour market performance and flexibility

Labour market conditions deteriorated in 2008-2010 in the context of a recession that affected almost all EU countries. The activity rate declined and unemployment rose substantially in most Member States (with the exception of Germany, where both remained broadly unchanged). In 2010-2012, there was a mixed picture, with some countries experiencing improved conditions, others better economic conditions but little improvement in the labour market, and yet others continuing to experience declines in employment and participation in the labour market. On the other hand, part-time employment increased in most countries over the period, especially in the EU15, while temporary employment increased in some and declined in others (in the latter reflecting the concentration of job losses on those on such contracts).

The **unemployment rate** is the labour market indicator **most strongly and consistently correlated with the social attitudes** measures presented here (and with the expected sign). That is true for changes in social attitudes observed between 2010 and 2012 and over the period 2008-2012 as a whole, though not for 2008-2010. However, changes in trust in people were weakly (and insignificantly) correlated with changes in unemployment. Figures 5-9 set out the whole picture.

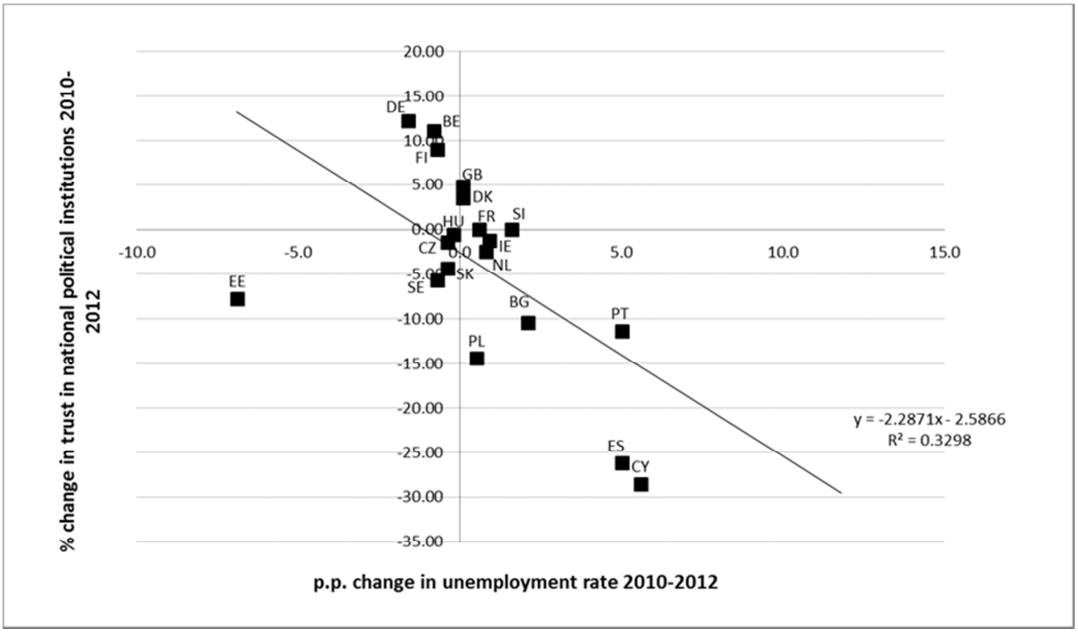
In contrast, only weak and **insignificant correlations between changes in the activity rate and changes in social attitudes** are evident. The only (positive) relationship that came close to being significant is with life satisfaction over the whole 4-year period.

Figure 5: Unemployment and trust in European Parliament in 2008-2012



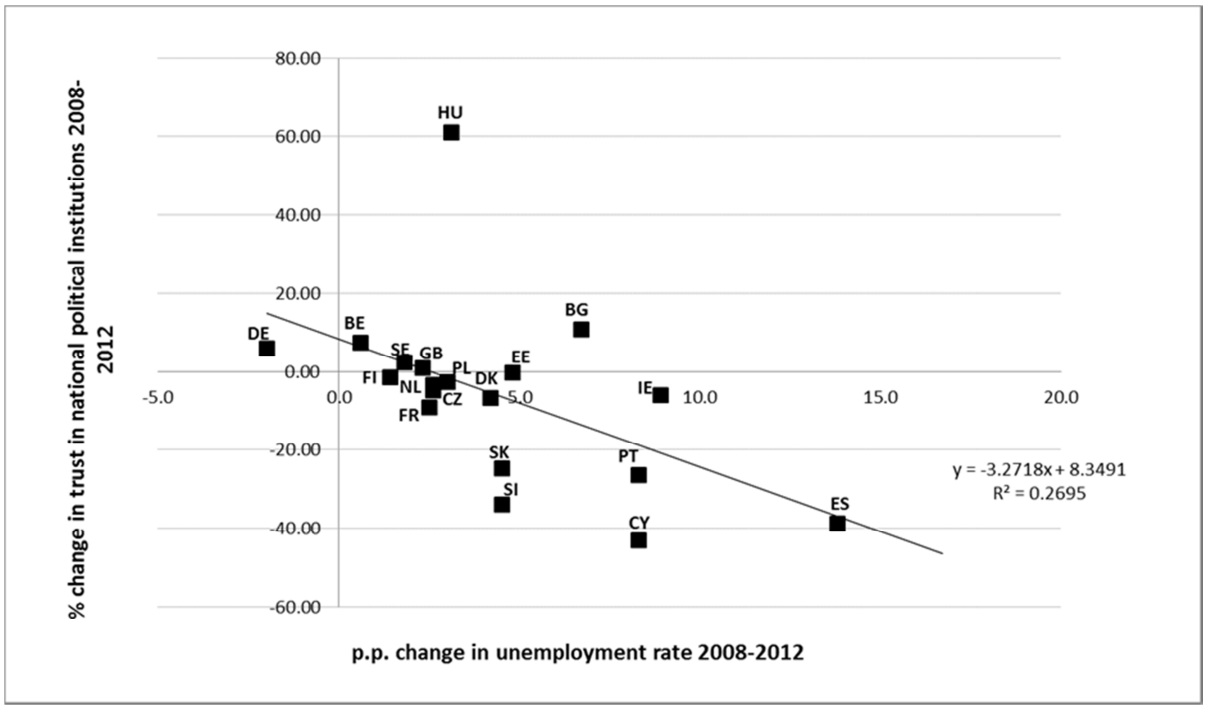
Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 6: Unemployment and trust in national political institutions in 2010-2012



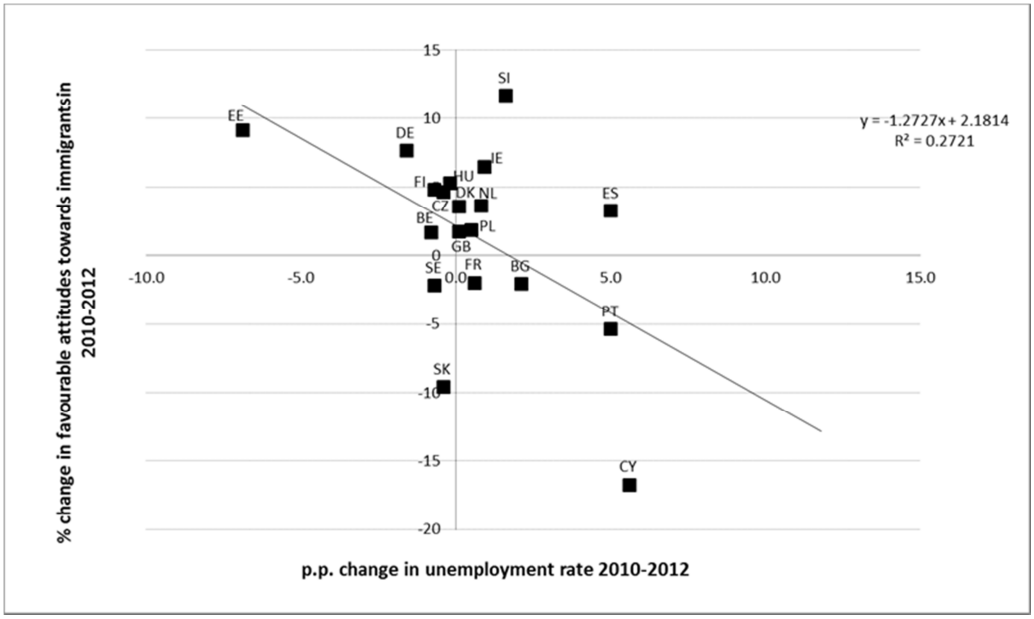
Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 7: Unemployment and trust in national political institutions in 2008-2012



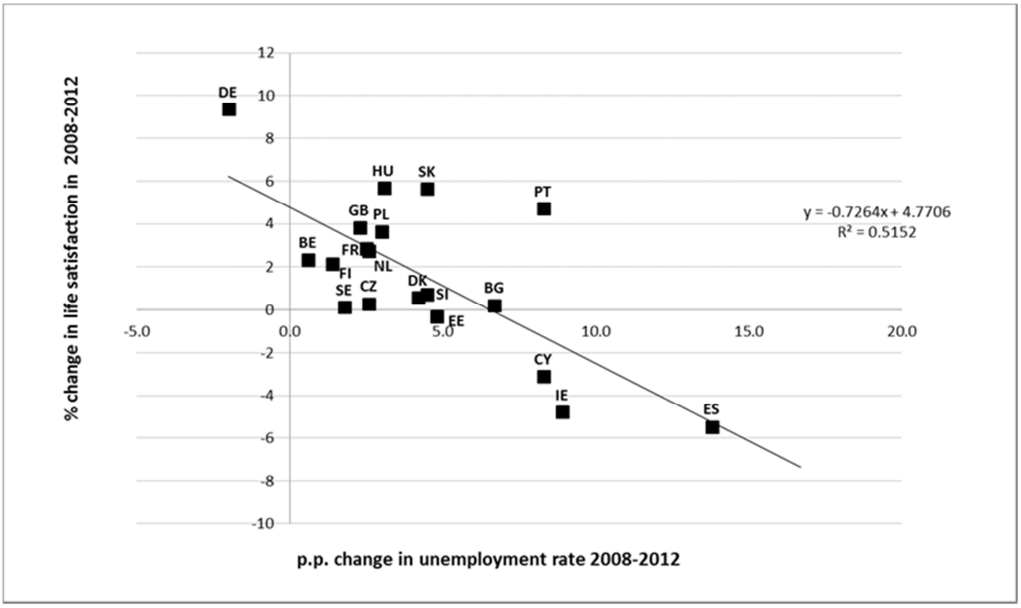
Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 8: Unemployment and attitudes towards immigrants in 2010-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

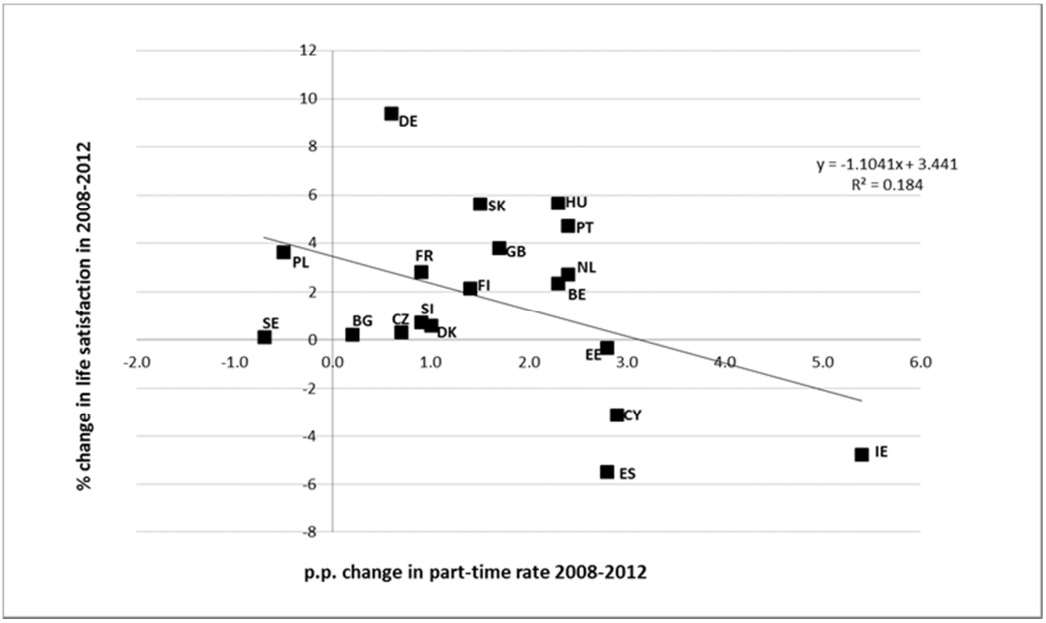
Figure 9: Unemployment and life satisfaction in 2008-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

The two measures of **non-standard work are also found to be in general uncorrelated with changes in social attitudes**. An exception is the reduction in average life satisfaction evident in countries with larger increases in part-time employment over the 4 years (Figure 10).

Figure 10: Part-time employment and life satisfaction in 2008-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

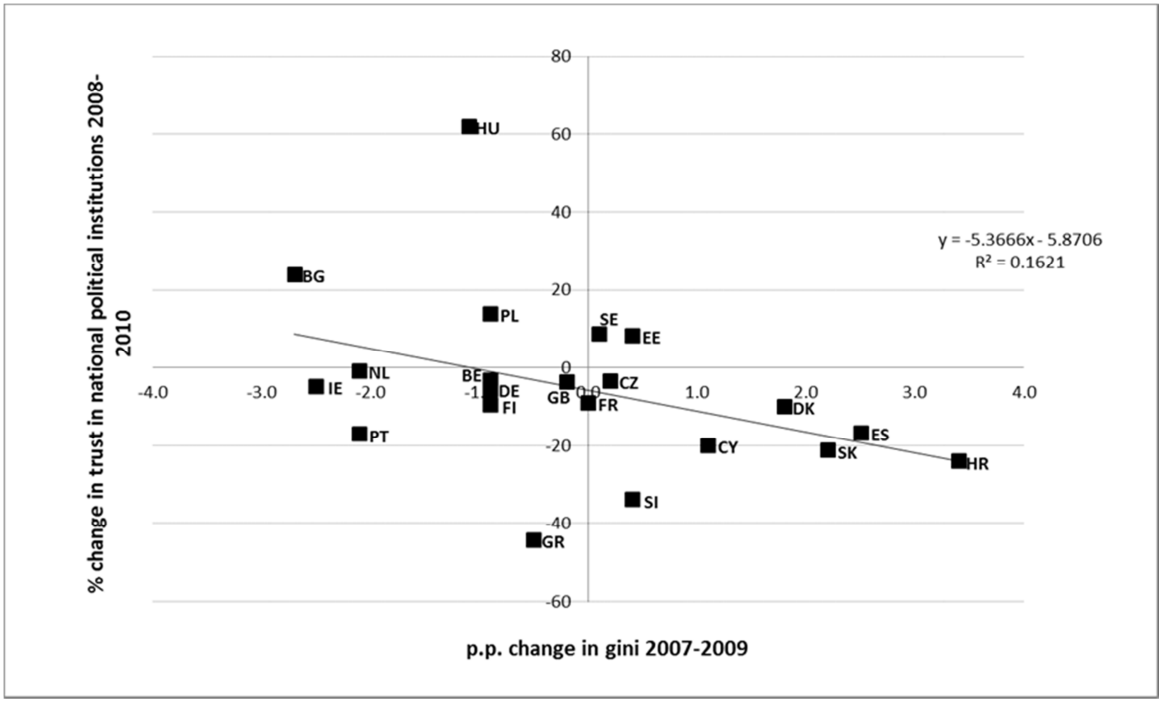
3.3.3 Changes in inequality and poverty

Inequality and the risk-of-poverty increased in most of the countries in the sample in the period 2007-2011.[12] This mainly reflects changes in the second part of the period (2009-2011), while the picture was more mixed for 2007-2009. In general, there are few cases of a significant relationship between changes in inequality and the social attitude measures, irrespective of the measure and the period examined. The only significant associations are presented in Figures 11-14. The main exception is, once again, changes in life satisfaction. Both the Gini coefficient and the S80/S20 income quintile share ratio appear to be negatively correlated with life satisfaction, at least for some of the period (2010-2012). On the other hand, the changes in at-risk-of-poverty rates are negatively correlated with life satisfaction in both 2008-2010 and 2010-2012, but the relationships are not statistically significant. As is shown in the following section, multivariate analysis is needed in order to have a complete picture of the relationship between the income distribution and social attitudes in the EU.[13]

[12] As noted above, since the latest data on income distribution available at the time of writing are for 2011, we examine changes in inequality and poverty over the period 2007-2011.

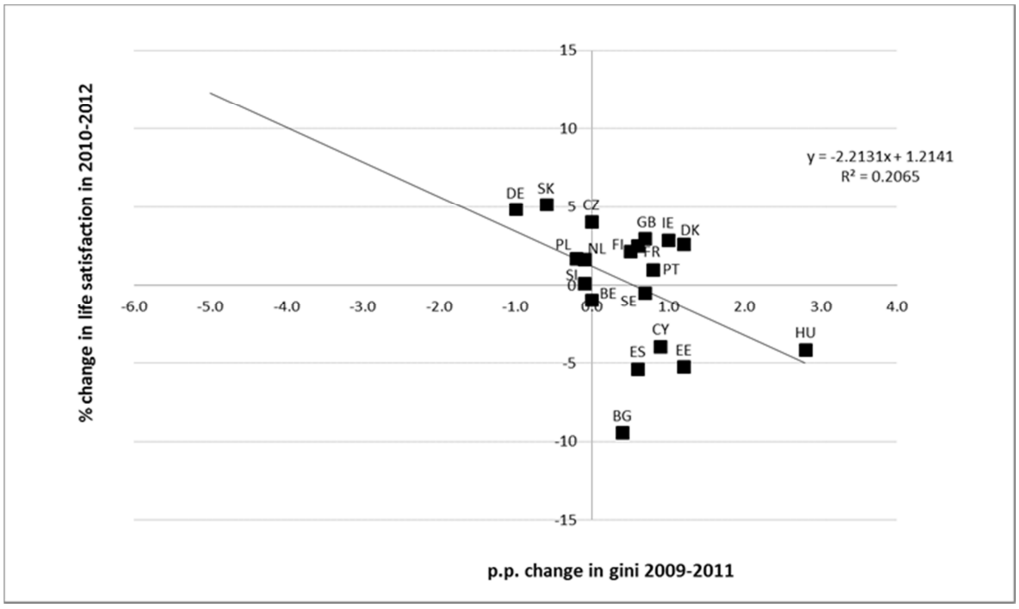
[13] As a robustness check, a different measure of the distribution of income was also used in preliminary analyses, namely the P10/P50 income percentile ratio (see also Section 5). Again, no significant relationships with changes in trust or attitudes towards immigrants were observed. However, in line with expectations, changes in this ratio are positively correlated to changes in life satisfaction in 2009-2011 and for the whole 2007-2011 period.

Figure 11: Gini coefficient and trust in national political institutions in 2008-2010



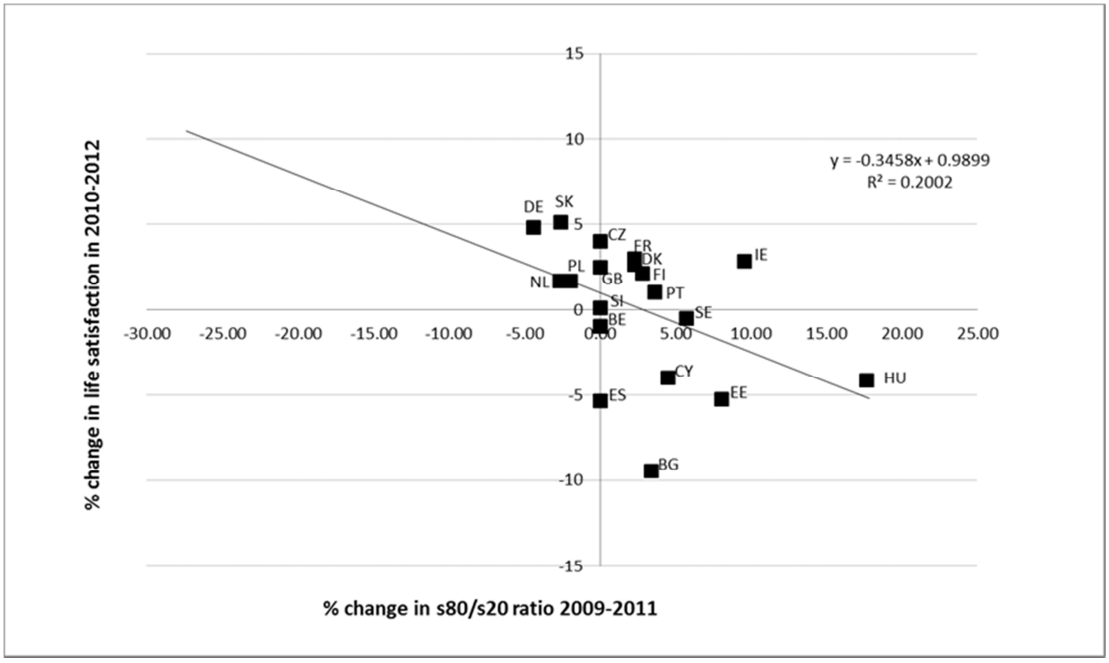
Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 12: Gini coefficient and life satisfaction in 2010-2012



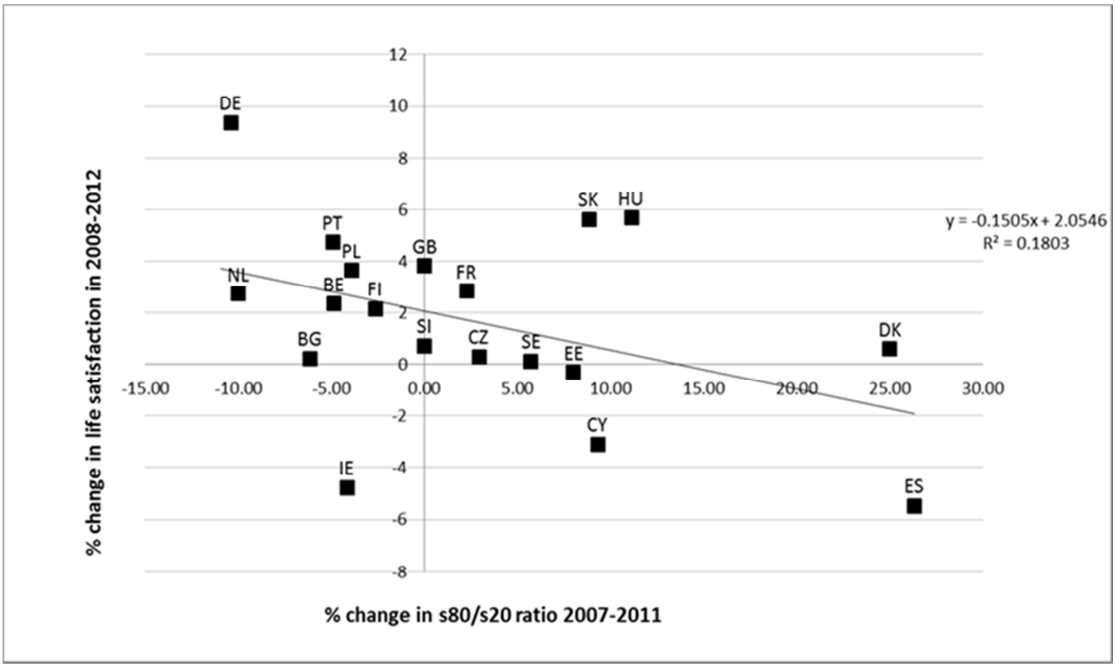
Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 13: S80/S20 income quantile share ratio and life satisfaction in 2010-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Figure 14: S80/S20 income quantile share ratio and life satisfaction in 2008-2012



Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

3.3 Multivariate analysis

Up to now, the analysis has focused on the presentation of the underlying trends in social attitudes in the EU in the post-crisis period, as well as a first simple examination of the (bivariate) relationships between these trends and the evolution of relevant macro-level indicators in the same period. In this final section of the ESS analysis, a more detailed examination of these relationships is presented. To this end, multivariate linear regression models are estimated. The aim is to examine the relationship between social attitudes and the macro environment, keeping constant the socio-demographic composition of the European population, as well as accounting for common time effects and country-specific realities that remain fixed during the period under consideration.

As already mentioned, a series of linear regression models is estimated for the five social attitudes measures, pooling the individual-level data across all countries and years.[14] The micro-level controls included in all models are the following:

- Immigrant status: dummy variable indicating whether the individual was not born in the country.
- Sex: dummy for female.
- Age and age squared.
- Household size.
- Living location: a series of dummy variables for whether living in the suburbs of a big city, in a town and in a village or a farm in the countryside. Base category is living in a big city.
- Labour market status: dummies for full-time student, unemployed, and other inactivity. Base category is being employed.
- Highest level of education: dummy variables for medium-level education (ISCED 3 & 4) and low-level education (no education or ISCED 1 & 2). Base is high-level education (ISCED 5 & 6).

All models also include country and year dummies. The use of these specifications is intended to offer a *ceteris paribus* interpretation of the effect of changes in the macro-level variables on social attitudes in the EU countries in the sample. Population composition effects are accounted for by the use of the individual-level covariates, while the use of country dummies keeps constant country-specific differences (such as norms, culture etc.) and the use of time dummies accounts for common time effects across all countries. However, we should note that a strictly causal interpretation of the effects of macro indicators is not possible. There may be other variables not accounted for in the models (i.e. omitted variables) that are correlated with both these specific macro-variables and the social attitudes examined here. In this case, the effect estimated for the macro-variables will also capture part of the effect of these other, omitted variables. Although we note here that a preliminary experimentation with more micro variables as additional right-hand side variables in the regressions did not substantially affect the results presented below, the interpretation of the following results should be quite cautious.

Table 4 presents the results for the social attitudes models. Two specifications are estimated for each social attitudes measure. The first (full specification) explains social attitudes at the individual level by a function that includes all macro-level indicators and all micro-level variables (see list above), while the second (parsimonious specification) excludes the income, the activity rate and the Gini variables from the estimated equation while still including the rest of the macro-level variables and all the

[14] The use of linear regression models for the analysis of ordinal data is quite standard practice in the relevant literature, since it has been shown that the assumption of cardinality does not lead to substantially different conclusions (for the case of life satisfaction data, see Ferrer-i-Carbonell and Frijters, 2004, and Ochsen and Welsch, 2012). For simplicity and ease of interpretation, we also proceed with presenting results from linear models.

micro-level ones.[15] This was done because, first, the per capita income variable is not available for Croatia (hence, Croatia is excluded from the full specification but included in the parsimonious one), while, second, there are very high correlations between the inequality and poverty measures since they are all measuring the dispersion of the countries' disposable income. Finally, the activity rate was excluded from the parsimonious specification because the coefficients for this variable were always small and imprecisely estimated, adding almost nothing to the explanatory power of the models.[16]

[15] Due to multicollinearity issues (very high correlations between the inequality and poverty measures), the S80/S20 ratio was not included in any specification.

[16] As mentioned above, due to the availability of the income distribution variables, these are entered in the regressions with a lag of one year. In preliminary analyses the same was done for the rest of the macro variables as well, without substantially affecting the pattern of results presented in Table 2.

Table 4: Micro and macro correlates of social attitudes in the EU (2008-2012)

	(A): Full Specification					(B): Parsimonious Specification				
	(1) Trust in the EU parliament	(2) Trust in national political institutions	(3) Trust in people	(4) Attitudes towards immigrant	(5) Life satisfaction	(6) Trust in the EU parliament	(7) Trust in national political institutions	(8) Trust in people	(9) Attitudes towards immigrant	(10) Life satisfaction
Macro-level										
Income	0.0002**	0.0003***	0.00002	-4E-05	0.0001*					
	[0.0001]	[0.0001]	[0.00004]	[0.00005]	[0.00003]					
Unemp rate	-0.031	-0.032	0.002	-0.036***	-0.039***	-0.072***	-0.084***	0.001	-0.023**	-0.058***
	[0.025]	[0.027]	[0.015]	[0.012]	[0.011]	[0.022]	[0.023]	[0.012]	[0.010]	[0.008]
Activity rate	-0.037	0.034	0.032	0.044	0.005					
	[0.059]	[0.088]	[0.036]	[0.042]	[0.027]					
Part-time rate	0.068	0.110	0.067	0.062	-0.003	0.004	-0.002	0.044	0.054	-0.029
	[0.073]	[0.104]	[0.047]	[0.050]	[0.035]	[0.055]	[0.071]	[0.038]	[0.034]	[0.022]
Temp rate	-0.004	0.075	-0.004	-0.082***	-0.042**	-0.022	0.045	-0.004	-0.078***	-0.050***
	[0.041]	[0.055]	[0.025]	[0.025]	[0.020]	[0.041]	[0.052]	[0.023]	[0.024]	[0.019]
Gini coeff (t-1)	0.041	-0.004	0.006	0.010	-0.024					
	[0.042]	[0.046]	[0.019]	[0.027]	[0.020]					
Poverty (t-1)	-0.143***	-0.141***	-0.014	-0.041	-0.058***	-0.057*	-0.059	0.007	-0.038	-0.048***
	[0.048]	[0.048]	[0.027]	[0.030]	[0.021]	[0.032]	[0.046]	[0.027]	[0.030]	[0.018]
Micro-level										
Immigrant	0.636***	0.510***	-0.049	1.040***	-0.118**	0.632***	0.503***	-0.051	1.038***	-0.120**
	[0.054]	[0.052]	[0.038]	[0.121]	[0.049]	[0.053]	[0.051]	[0.038]	[0.120]	[0.048]
Female	0.186***	0.005	-0.050**	-0.023	0.013	0.182***	0.003	-0.049**	-0.021	0.015
	[0.035]	[0.017]	[0.020]	[0.025]	[0.028]	[0.035]	[0.017]	[0.020]	[0.025]	[0.028]
Age	-0.068***	-0.044***	-0.007*	-0.002	-0.064***	-0.068***	-0.044***	-0.007*	-0.003	-0.064***
	[0.010]	[0.006]	[0.004]	[0.005]	[0.006]	[0.010]	[0.006]	[0.004]	[0.005]	[0.006]
Age sq. (/100)	0.061***	0.051***	0.012**	-0.004	0.067***	0.061***	0.050***	0.012**	-0.003	0.067***
	[0.009]	[0.006]	[0.005]	[0.005]	[0.006]	[0.009]	[0.006]	[0.005]	[0.005]	[0.006]
Hhold size	0.054***	0.066***	0.010	0.024***	0.103***	0.054***	0.066***	0.011	0.024***	0.103***
	[0.010]	[0.009]	[0.012]	[0.009]	[0.016]	[0.010]	[0.009]	[0.012]	[0.009]	[0.016]

Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

	Trust in the EU parliament	Trust in national political institutions	Trust in people	Attitudes towards immigrant	Life satisfaction	Trust in the EU parliament	Trust in national political institutions	Trust in people	Attitudes towards immigrant	Life satisfaction
Suburbs	-0.106**	-0.040	-0.059	-0.059	0.028	-0.103**	-0.035	-0.060	-0.060	0.027
	[0.047]	[0.051]	[0.054]	[0.051]	[0.048]	[0.047]	[0.051]	[0.054]	[0.051]	[0.048]
Town	-0.149***	-0.090**	-0.148***	-0.179***	0.004	-0.146***	-0.086**	-0.149***	-0.178***	0.004
	[0.042]	[0.038]	[0.032]	[0.049]	[0.041]	[0.042]	[0.038]	[0.032]	[0.049]	[0.040]
Village	-0.265***	-0.145***	-0.076*	-0.276***	0.125***	-0.263***	-0.140***	-0.077*	-0.273***	0.123***
	[0.052]	[0.045]	[0.041]	[0.048]	[0.038]	[0.052]	[0.045]	[0.041]	[0.048]	[0.038]
Student	0.572***	0.490***	0.476***	0.581***	0.270***	0.565***	0.480***	0.476***	0.578***	0.269***
	[0.034]	[0.033]	[0.053]	[0.055]	[0.060]	[0.034]	[0.033]	[0.053]	[0.054]	[0.059]
Unemployed	-0.308***	-0.341***	-0.322***	-0.306***	-1.206***	-0.305***	-0.338***	-0.320***	-0.301***	-1.201***
	[0.054]	[0.054]	[0.055]	[0.079]	[0.081]	[0.054]	[0.054]	[0.054]	[0.078]	[0.080]
Inactive	-0.104***	-0.108***	-0.194***	-0.175***	-0.239***	-0.102***	-0.106***	-0.193***	-0.174***	-0.240***
	[0.034]	[0.026]	[0.030]	[0.026]	[0.032]	[0.033]	[0.026]	[0.030]	[0.026]	[0.032]
Medium Educ	-0.487***	-0.462***	-0.665***	-0.749***	-0.415***	-0.488***	-0.464***	-0.664***	-0.746***	-0.416***
	[0.042]	[0.033]	[0.038]	[0.054]	[0.039]	[0.042]	[0.033]	[0.038]	[0.054]	[0.038]
Low Educ	-0.595***	-0.552***	-0.921***	-1.075***	-0.593***	-0.592***	-0.548***	-0.919***	-1.072***	-0.596***
	[0.063]	[0.041]	[0.050]	[0.060]	[0.060]	[0.062]	[0.041]	[0.050]	[0.059]	[0.060]
N	103,934	109,974	113,829	108,884	113,683	106,620	112,867	116,820	111,638	116,679
R-sq	0.091	0.169	0.108	0.141	0.132	0.090	0.170	0.107	0.140	0.131

*Notes: All models also include country and year dummies; Standard errors (in brackets) account for clustering at the country/year level; *** p<0.01, ** p<0.05, * p<0.1; Weights for sample design and population size are applied.*

Sources: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0), Eurostat, and authors' calculations.

Starting from the micro-correlates, the results are broadly in line with the results presented in the relevant literature (see Section 3.1). **Lower education** levels are correlated with **less trust**, more **unfavourable attitudes towards immigrants and less life satisfaction**, while the same is the case about non-employed persons (apart from students, who are found to be more trusting, less xenophobic and more satisfied with life than persons in employment). People not living in big cities or in the suburbs of big cities show lower levels of trust and less favourable attitudes towards immigrants, while, on the other hand, are more satisfied with their lives (this, though, is not the case for people living in towns that show similar levels of satisfaction with people in cities). **Household size is in general positively correlated with attitudes**; while the same is the case for the **youngest and the oldest people** (age depicts a U-shaped relationship with attitudes). This last result, though, is not observed for attitudes towards immigrants (the age variables are insignificant in this case). Women are more trusting towards the EU parliament, while they show lower levels of generalized trust than men. Finally, immigrants show higher levels of institutional trust and (as expected) more favourable attitudes towards immigration, while they also record lower levels of life satisfaction than natives.

Turning now to the macro variables of interest, it is particularly noteworthy that all significant coefficients for the macro covariates have the expected sign. It should also be mentioned that in all models the variables of interest are also jointly significant.[17] In line with the results from the bivariate relationships of changes in the previous section, income is positively related to institutional trust and life satisfaction. Also, the unemployment rate seems to be the most important macro-level correlate, and especially in the models estimated with the parsimonious specification. Of particular importance seems to be the **negative effect of unemployment on attitudes towards immigrants and on life satisfaction**, which is significant in both the full and the parsimonious specifications. As an example of the size of this effect, a four percentage point change in unemployment (which is equal to about one standard deviation of the unemployment rate variable in the sample) leads to an approximately 0.23 points (4 times 0.058) decrease in life satisfaction, or 10 percent of the life satisfaction standard deviation.[18]

Also in line with the results in the previous section, the **other labour market performance and flexibility indicators do not seem to explain much of the variation in social attitudes** in the EU. The activity rate and the part-time employment rate are always insignificant, while temporary employment is negatively related only to attitudes towards immigrants and life satisfaction. This result can be explained to some extent by the higher feelings of employment insecurity caused by a higher prevalence of temporary employment contracts in the European countries (see Ochsen and Welsch, 2012).

Finally, somewhat differently from the results presented in the previous section, it seems that **the most important variable concerning income distribution is the poverty rate**. In the presence of this variable, the Gini coefficient effect is always small and insignificant (full specification). On the other hand, a higher poverty rate seems to be consistently negatively related only with life satisfaction, as a comparison of the full and the parsimonious specifications reveals.[19]

In sum, this section provided a stronger test of the importance of the macro-economic and macro-social environment in explaining (to some extent) the evolution of social attitudes in the EU countries during the post-crisis year. Controlling for changes in the

[17] The results of the F-tests are not presented in the Table, but they all reject the null hypothesis of no joint significance at the 0.0001 level at least.

[18] These calculations use the results from Model 10 in the Table.

[19] It should also be noted here that when the poverty rate is replaced with the S80/S20 ratio in the parsimonious specification, its coefficient is always statistically insignificant. On the other hand, using the lag of the P10/P50 ratio mentioned above produced positive and significant results only for the life satisfaction models in both specifications.

socio-demographic characteristics of the European populations and keeping constant common time effects and country-specific realities, the bivariate relationships identified in the previous section were confirmed to a large extent.

Specifically, the multivariate regression models show that institutional trust in the EU countries is positively influenced by the level of income and negatively by the unemployment rate. On the other hand, generalized trust is largely unaffected by the macro-environment (the macro-level indicators are statistically insignificant in both specifications). Favourable attitudes towards immigrants seem to be negatively affected by unemployment and the extent of temporary employment. Finally, life satisfaction seems to be the social attitude examined here that is mostly affected by the macro-level variables. It is positively related to income levels, while it is negatively related to unemployment, the temporary employment rate and a more unequal distribution of income.

4. The social climate in the EU Member States after the onset of the Great Recession

Latest wave of the Eurobarometer series (81.5) contained questions about social climate, perceptions of poverty and inequality. Field work was completed between 14 June and 23 June 2014 in 28 EU member states by TNS Europe. Northern Ireland and Great Britain and East- and West-Germany were surveyed separately, but in the analyses presented in this paper we employed a country-level approach, so the United Kingdom and Germany were studied unitedly with their subterritories. Also, the usual caveat holds for Cyprus, which does not include the territory that is not controlled by the government of the Republic of Cyprus.

4.1 Social climate during crisis time: poverty perception and perceived policy performance between 2009 and 2014

In this part of the paper we first analyse overall trends in the social climate, followed by an analysis of changes in perceived extent of poverty and of causal attributions as to what makes people poor. Then we turn to an analysis of the effects of macro factors on poverty perceptions.

4.1.1. Overall social climate (poverty perception)

To measure the change in perception of current socio-economic situation in the various Member States an index of social climate (SC) was introduced, based on Eurobarometer surveys since 2008[20]. The aggregate SC index aimed at covering both the personal situation of the respondents as well as their assessment of the general situation and social protection and inclusion factors in their countries is based on two broad questions. The first asks about respondents' overall life satisfaction[21], while the second asks them to judge 14 areas of personal life and social and economic factors in their country[22]. Original four-point answer scales were than transformed to a theoretical range of -10 to + 10.

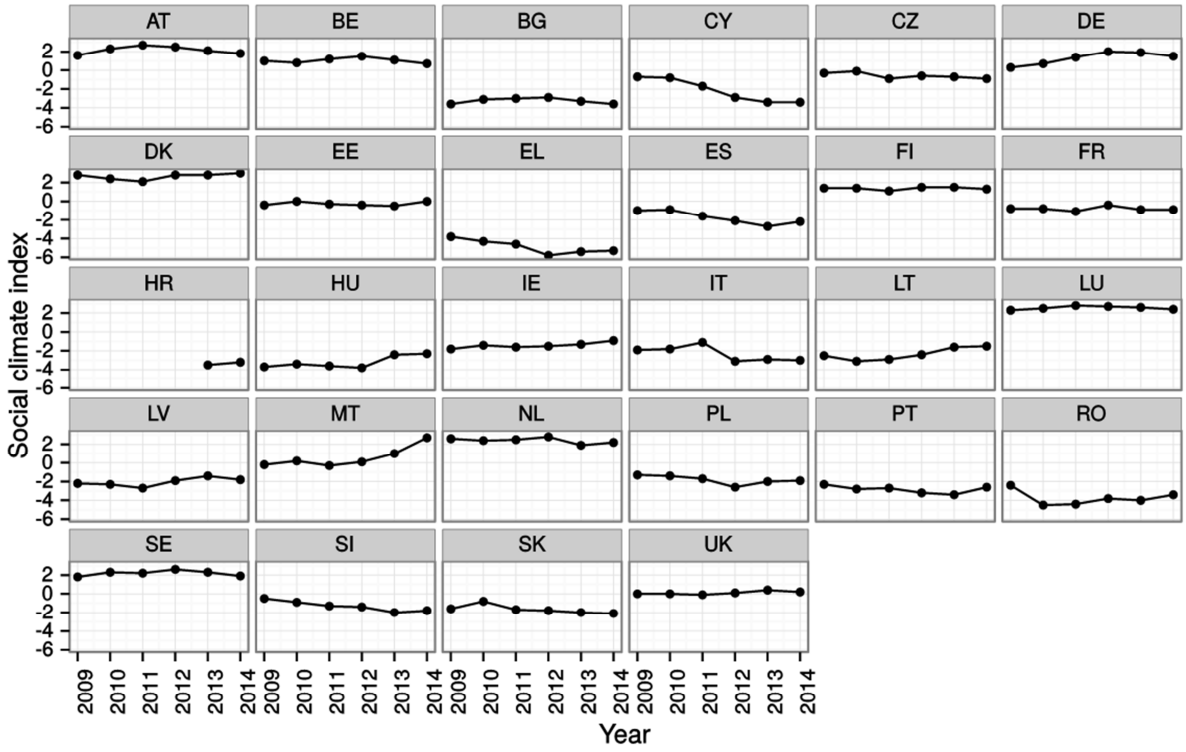
[20] The surveys analysed in this Research Note are listed in Annex 2.

[21] The wording of the question was: "On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead? (READ OUT) Very satisfied, Fairly satisfied, Not very satisfied, Not at all satisfied, Don't know".

[22] Q2 "How would you judge the current situation in each of the following? (SHOW CARD WITH SCALE – ONE ANSWER PER LINE) (READ OUT) The area you live in, Health care provision in (OUR COUNTRY), The provision of pensions in (OUR COUNTRY), Unemployment benefits in (OUR COUNTRY), The cost of living in (OUR COUNTRY), Relations in (OUR COUNTRY) between people from different cultural or religious backgrounds or nationalities, The way inequalities and poverty are addressed in (OUR COUNTRY), How affordable energy is in (OUR COUNTRY), How affordable housing is in (OUR COUNTRY), The way public administration runs in (OUR COUNTRY), The situation of the (NATIONALITY) economy, Your personal job situation, The financial situation of your household, The employment situation in (OUR COUNTRY)? Very good, Rather good, Rather bad, Very bad, Don't know"

An overall picture for all the countries and the available years based on aggregate SC index scores is presented in Figure 15 (and in Table A2). In 2014 the index had a mean score of 0.8. The highest country mean was registered for Denmark (3.0), while the lowest in Greece (-5.3). The largest reduction in the score between 2009 and 2014 was registered by Cyprus (-2.7), and the largest increase by Malta (+2.9) and Hungary (+1.4).

Figure 15: Overall Social Climate Index change between 2009 and 2014



Source: European Commission. 2013. Social Climate. Special Eurobarometer 408. p.10. Cf. Table 1. Values for 2014 are own-calculation on Eurobarometer 81.5 data.

Top ranking countries in 2014 with scores over 2 are Denmark, Malta, Luxembourg, and the Netherlands. A positive social climate (SC-index score above 0 but under 2) was found in Sweden, Austria, Germany, Finland, Belgium, the UK and in Estonia. A moderately unfavourable social climate (with index score between 0 and minus 2) was evident in, Ireland, France, Czech Republic, Lithuania, Slovenia, Latvia, and Poland. Countries with the least favourable social climate (SC score under -2 in 2014) in the EU were Slovakia, Spain, Hungary, Portugal, Italy, Croatia, Cyprus, Bulgaria, Romania and Greece.

4.1.2. Changes in perceived poverty

Previous Research Notes (8/2009, 5/2010 and 4/2011, cited as Keller, Medgyesi and Tóth, 2009, Keller 2010, 2011 in the references) have examined changes in the social climate across the EU in the early stages of the crisis, the most recent reviewing trends over time in social attitudes. It has been shown by them that there were marked changes in the relationship between income deprivation and the perceived

causes of poverty between 2007 and 2010 on the basis of three Special Eurobarometer surveys carried out in 2007, 2009 and 2010[23].

Changes in perceptions of poverty were also examined on the basis of successive Flash Eurobarometer surveys between July 2009 and December 2010[24], comparing these perceptions with the actual 'at risk of poverty' rate in order to see how close the two were. As these papers highlighted, the rate of poverty perceived by those surveyed has remained relatively stable already in the second phase of the recession. Indeed, an increasing share of people between July 2009 and October 2010 considered poverty to be approximately the same as in the preceding year. There was, however, a marked shift in the perceived causes of poverty. Between 2007 and 2010, the share of people regarding poverty to be a consequence of social injustice increased, while the proportion considering poverty to be due to people being lazy declined. In Latvia and Lithuania, in particular there was an especially large rise in the proportion of people regarding poverty as stemming from social injustice and a correspondingly large decline in those attributing it to laziness.

The comparison of perceived poverty between 2010 and 2014 shows an **increased awareness of the growth of poverty in various countries**. As Figure 16 shows, the share of people saying that poverty is "very widespread" in their country has increased to a very large extent in Greece, Italy, Slovenia, Portugal, Spain and Cyprus, with some increase also experienced in Netherlands, Slovakia and Bulgaria. It was only Romania and Malta where the share of people reporting "very widespread" poverty was on the decline[25].

The question block in the EB 81.5 also asked about poverty causal attributions in a way that we can differentiate between "macro-social" and "individual" reasons of how people can get poor again, similarly to the previous EB survey in 2010[26]. To follow the time trends in these, see Figures 17 and 18.

As the data show, in over a dozen countries (and especially in Cyprus and Portugal) the share of people claiming that the poor are poor because they are lacking willpower and are perhaps idle has declined significantly, while the share of those attributing poverty to social injustice was on the rise in Cyprus, Portugal and Spain, among others. It is notable, however, that in some countries (most notably in Malta, for example), trends went into a completely different direction. Perhaps this is not independent of the fact that poverty rates diverged a lot WITHIN the Mediterranean tier. While in Spain and Cyprus they were on the rise, in Malta employment was on the rise and poverty declined in the same period.

It is interesting, however, that while poverty perception was mostly on the rise, the agreement with the statement that "inequalities are too large in the country"[27] did not change too much between 2010 and 2014. As Figure 19 shows, I most countries there was a slight decrease in the share of these people and only in Spain, Portugal and Italy did the share of people frustrated by inequality levels increase.

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[23] In 2007: Reference number: 279, wave: EB.67.1), in 2009: Reference number: 321, wave: EB.72.1 and in 2010: Reference number: 355, wave: EB.74.1.

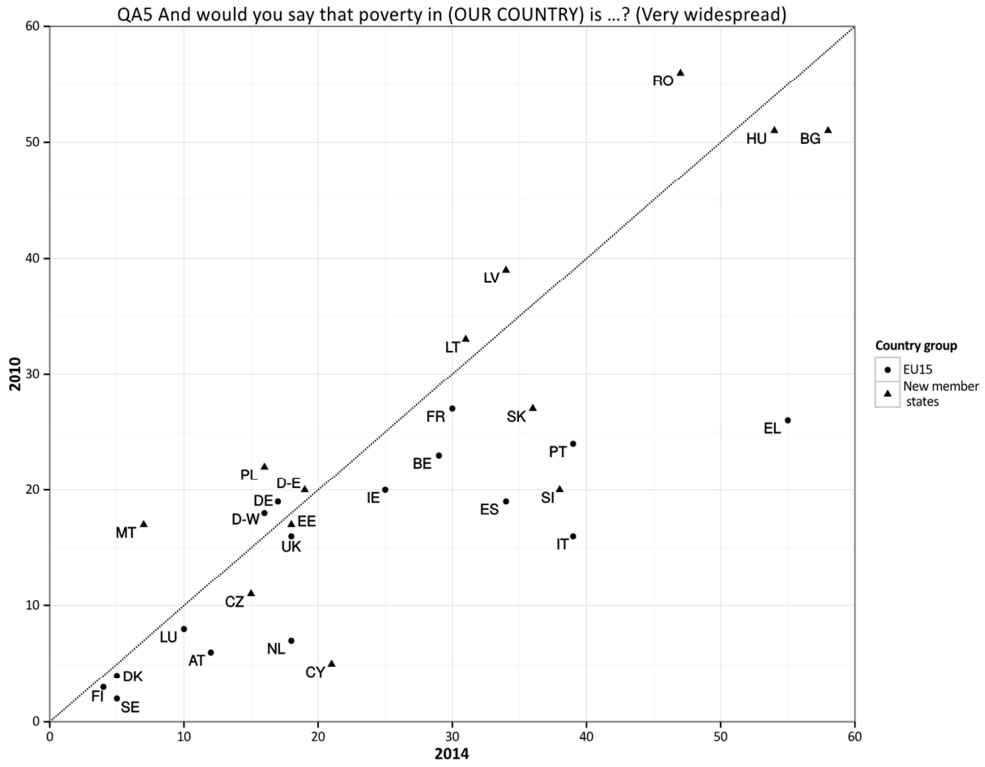
[24] Flash Eurobarometer reference numbers: 276, 286, 288, 289 and 311.

[25] The relationship between the changes of actual poverty rates and of the perceptions of poverty correlate to some extent, but the correlation is by far not full (compare country data point positions in Figure 16 to Figure 23, for example). In some countries where poverty was on the rise (in this period, like AT, SE) perceptions did not followed this. In other countries (like CY, for example) there was a large increase in the share of people experiencing widespread poverty cannot really be confirmed by the actual "objective" trends.

[26] The question was the following: Why in your opinion are there people who live in poverty? Here are four opinions: which is closest to yours? Answer options: (1) Because they have been unlucky, (2) Because of laziness and lack willpower, (3) Because there is much injustice in our society, (4) Because it's an inevitable part of progress, (5) none of these.

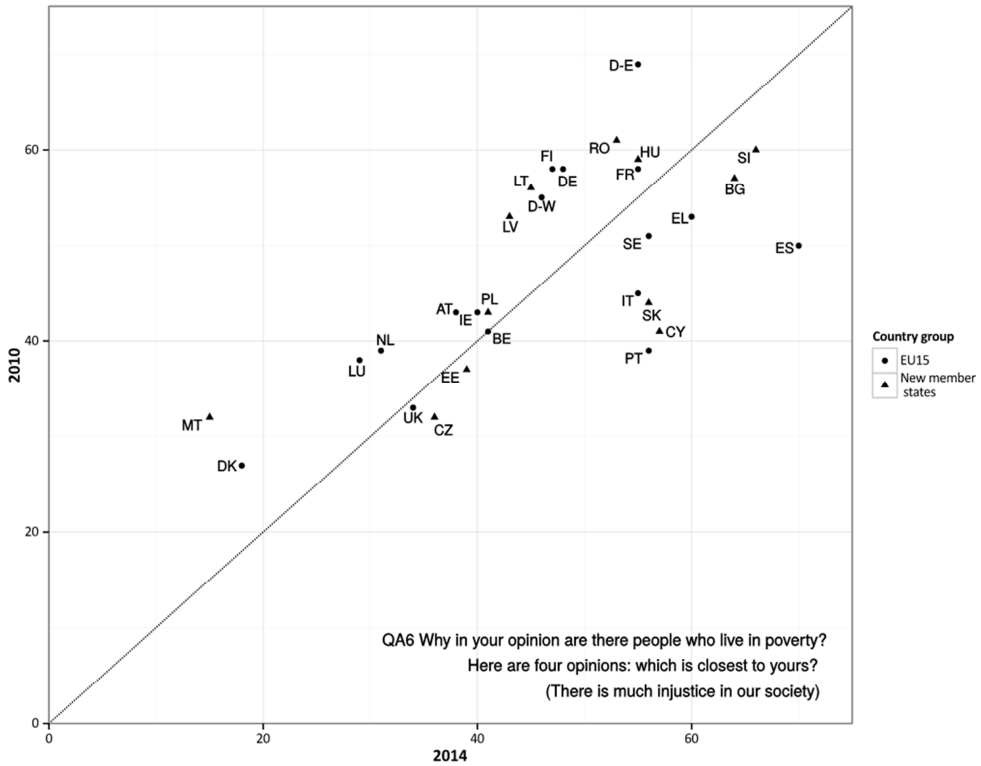
[27] The wording was as follows: Do you agree or disagree with the following statement? Nowadays in (OUR COUNTRY) income differences between people are far too large (1) Totally agree, (2) tend to agree, (3) tend to disagree, (4) totally disagree (5) does not know.

Figure 16 Perception of poverty: change in the share of people perceiving very widespread poverty, 2010-2014, %



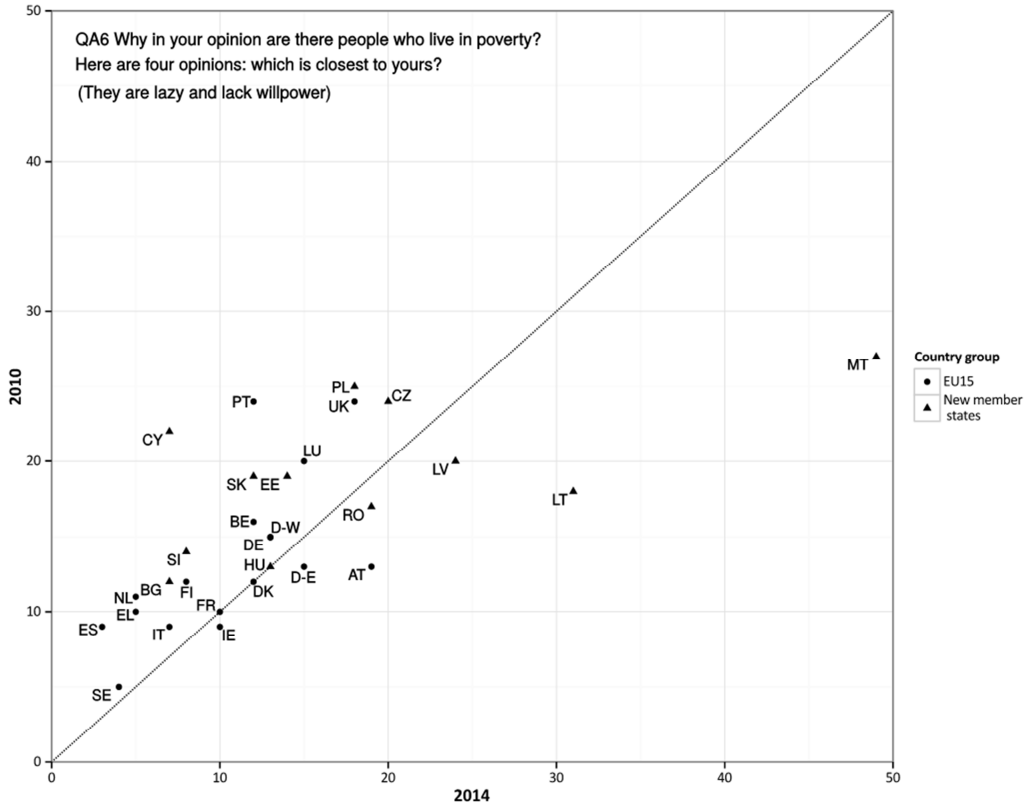
Source: Eurobarometer 72.1 (2009) and Eurobarometer 81.5 (2014).

Figure 17 Causal attribution of poverty: change in the share of people answering poor are poor because of social injustice, 2010-2014, %



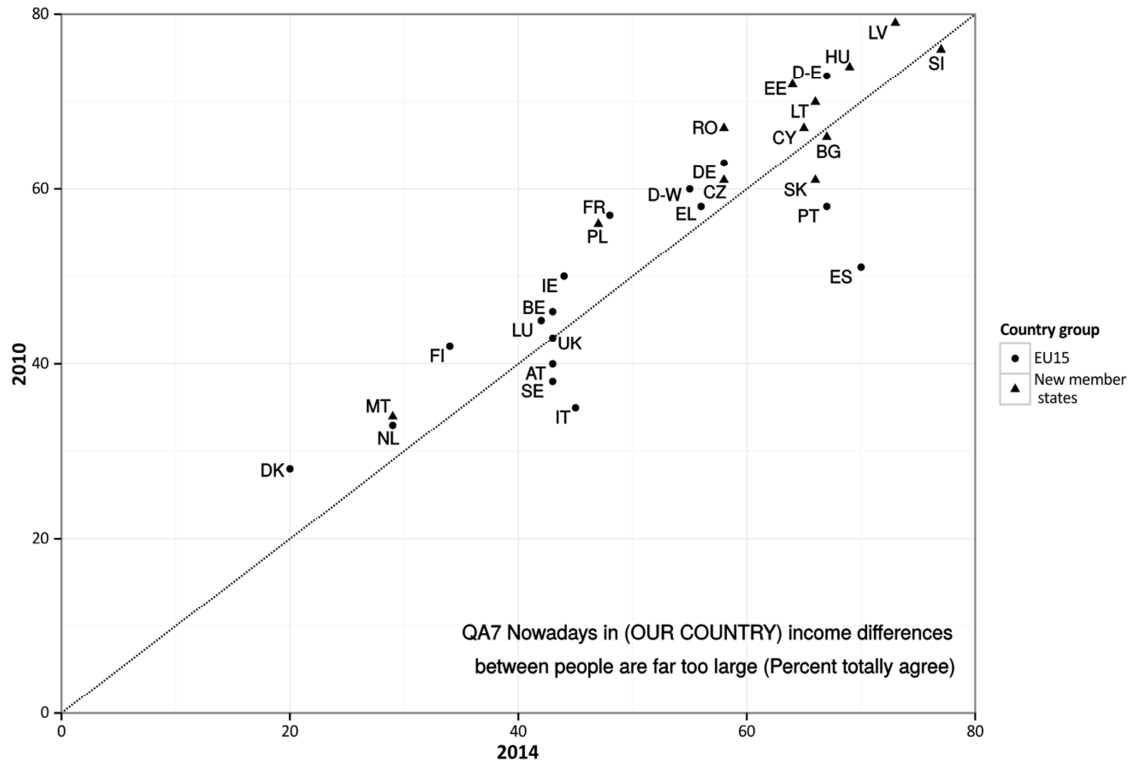
Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

Figure 18 Causal attribution of poverty: change in the share of people answering poor are poor because they are lazy and/or lacking willpower, 2010-2014, %



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

Figure 19 Share of people in full agreement to the statement that inequalities are "too large" in the country of the respondent, 2010-2014, %



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

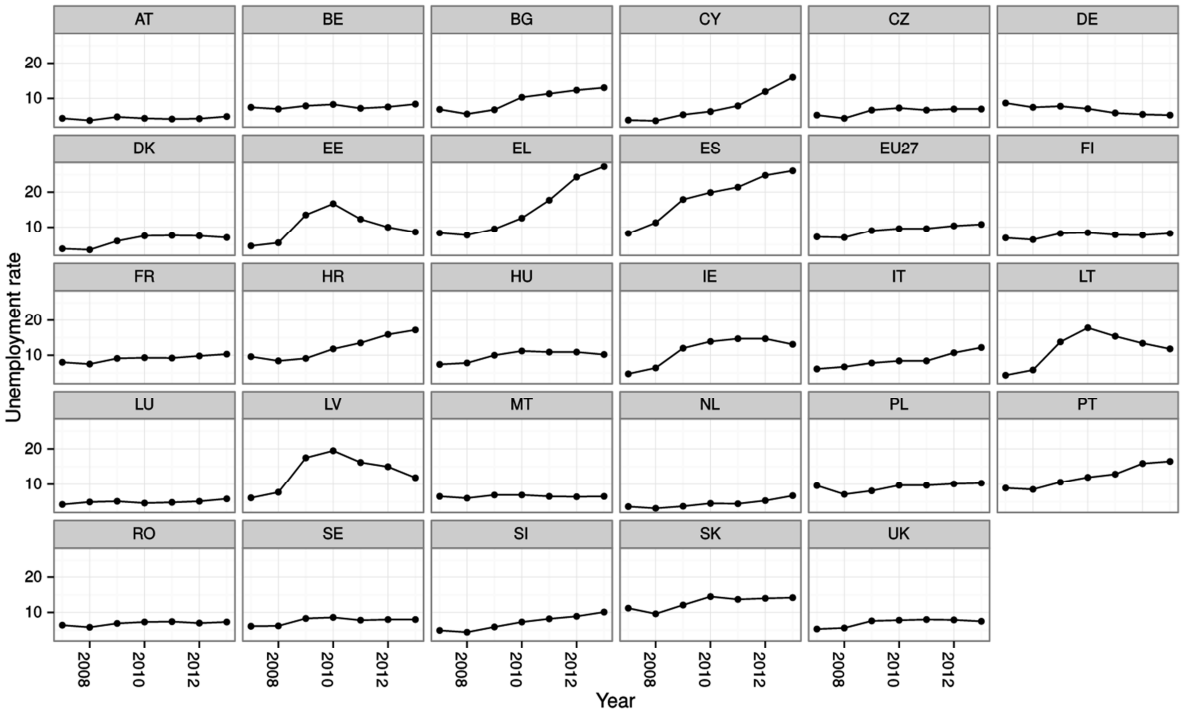
4.1.3 The effects of macroeconomic variables on social climate and on the evaluation of policy performance

The focus of this preliminary analysis is on how perceived policy performance (in addressing poverty and inequalities) is related to macroeconomic variables such as unemployment (and particularly youth unemployment), income inequality and poverty.

Important components of the social climate index are related to the unemployment or employment situation in countries. The concern first is therefore on how unemployment changed between 2007 and 2013, and how it is related to the perceived policy performance of the various countries, as assessed by the respondents to the EB surveys.[28]

The unemployment rate rose on average after the 2008 financial crisis from about 7% to 11% in 2013 in the EU27 countries. Some countries, the Baltic States especially, seemed to be over the worst period of labour market turmoil by 2013, others (Spain, Greece, Cyprus for example) were still struggling with a rising unemployment rate (see also Section 3 above for a similar description of these trends). The only exceptions where unemployment declined or remained much the same over the period are Germany and Malta. In Spain and Greece, the labour market situation was particularly adverse with the unemployment rate close to 30%, 20 percentage points higher than before the Great Recession (see Figure 20 and Table A3).

Figure 20: Unemployment rate, 2007-2013 (annual average, %)



Source: Eurostat "une_rt_a" database. Not seasonally adjusted data. Cf. Table 2.

How does the change of the unemployment situation affect perceived policy performance in tackling poverty? The relationship is plotted on Figure 21. **A larger increase in unemployment (in terms of the percentage point change between 2007 and 2013) is associated with a worse perceived policy performance**. On the basis of the bivariate relationships, a one percentage point increase in the

[28] Relevant Eurobarometer question on the evaluation of policy performance was: "Q2 "How would you judge the current situation in each of the following? (...) The way inequalities and poverty are addressed in (OUR COUNTRY)." Answers were scored as "Very good"=10, "Rather good"=3.33, "Rather bad"=-3.33, "Very bad"=-10 and "Don't know" = not scored, excluded from the analysis.

unemployment rate is associated with a decline of 0.32 of a point in the measure of policy performance. If there had been no change in unemployment over the period, perceived performance would have been predicted to be relatively poor (a negative value of 1.6) on the basis of a linear relationship between the two variables (as shown by the intercept of the equation with the vertical axis in Figure 21).

The relationship between developments in unemployment and perceived policy performance, however, does not seem to be fully linear, nor does it seem to be very strong. While, on the one hand, in certain countries the sharp deterioration in labour market conditions seems to be associated with relatively poor assessments of policy performance (in Spain Cyprus or Greece, for example), in other countries (such as Lithuania, Romania, Bulgaria, Estonia and several other countries to the left of the regression line in Figure 21), a much less severe worsening of labour market conditions is associated with a similarly poor assessment of policy. **The large variation in policy assessment in countries showing no or minimal increase in unemployment**, on the other hand, suggests that the way governments alleviate poverty includes (at least in the public's perception) **policies other than those related to reducing unemployment**.

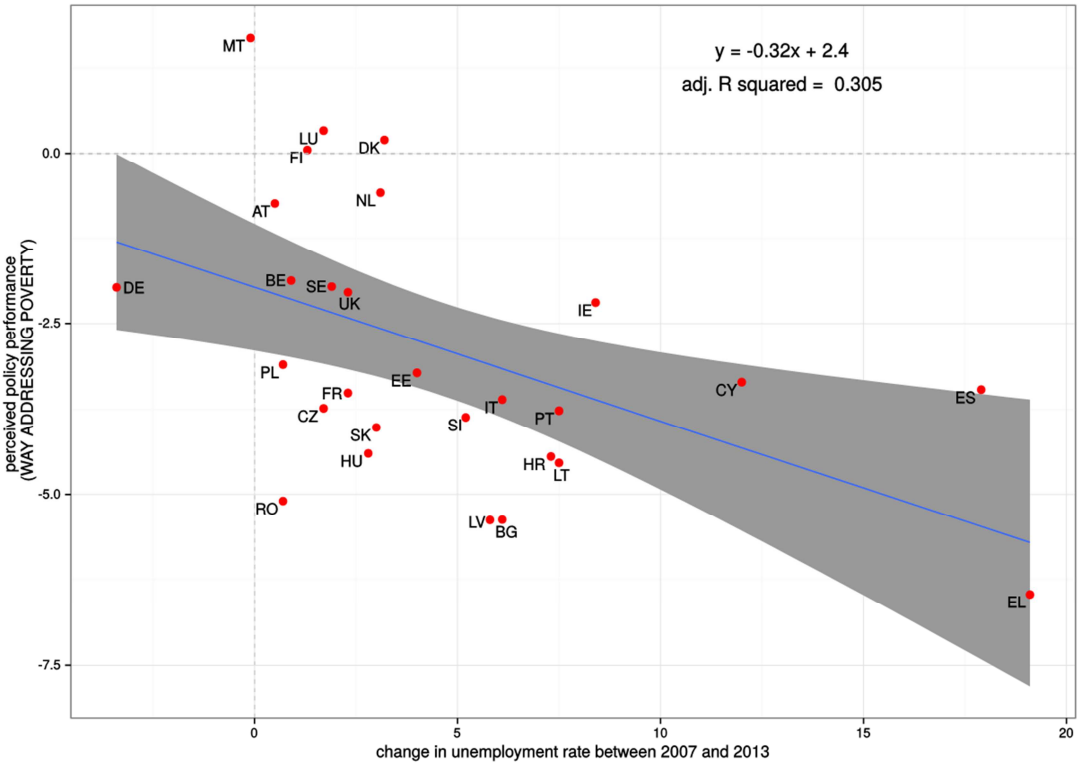
The rise in youth unemployment across the EU was more marked than that of those of 25 and older in many countries. In Greece and Spain, the rate was well over 50% by 2013 and in a number of other Member States (Croatia, Cyprus and Italy), the increase was more than 20 percentage point between 2007 and 2013 (Table A4).

The relationship between change of youth unemployment and perceived policy performance (not shown on figure here) is similar to that for the whole population. The relationship between the change in the youth unemployment rate and the assessment of (overall) policy performance in alleviating poverty seems closer than for the change in the overall unemployment rate, though there is still considerable variation in policy assessment between countries with relatively small increases in youth unemployment.

The relationship between changes in the at-risk-of-poverty rate and in income inequality (in terms of changes in the Gini coefficient) and the assessment of policy performance measure was also examined.

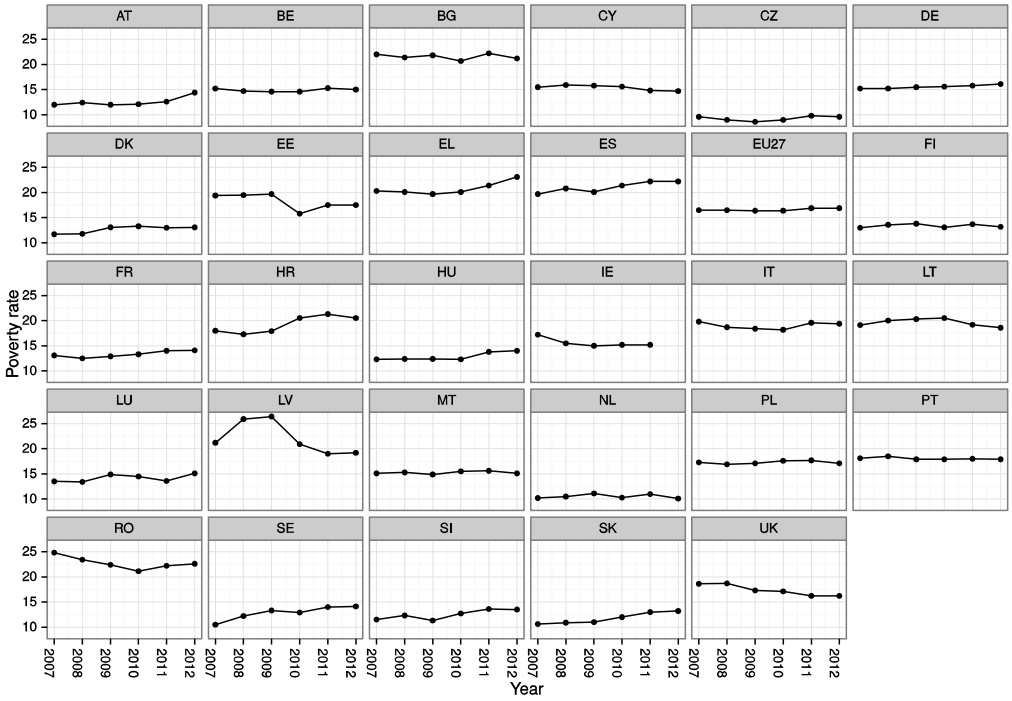
The at-risk-of-poverty rate with was measured by the EU-SILC as being fairly stable across EU 27 countries between 2007 and 2012 (rising from 16.5 in 2007 to 16.9 in 2012 – i.e. between the 2006 and 2011 income years). There were 6 countries (Sweden, Greece, Slovakia, Spain, Croatia and Austria) where the rate increased by more than the average, while there were some countries where the rate declined – by over 2 percentage points in Romania and the UK and by slightly less but still significantly in Estonia, Ireland and Latvia (Figure 22).

Figure 21. Perceived policy performance in addressing poverty (2014) and change of unemployment rate (2007-2013)



Source: Eurostat "une_rt_a" database and Eurobarometer 85.1. Change in unemployment rate was simply calculated as percent point differences of 2013 and 2007 rates. Perceived policy performance was measured by a question that was worded as: "How would you judge the current situation in each of the following? The way inequalities and poverty are addressed in (OUR COUNTRY)." Answers were scored as "Very good"=10, "Rather good"=3.33, "Rather bad"=-3.33, "Very bad"=-10 and "Don't know" = not scored, excluded from the analysis. Plot on y-axis shows country weighted means on -10 +10 scale.

Figure 22: Trends of poverty rate between 2007 and 2012

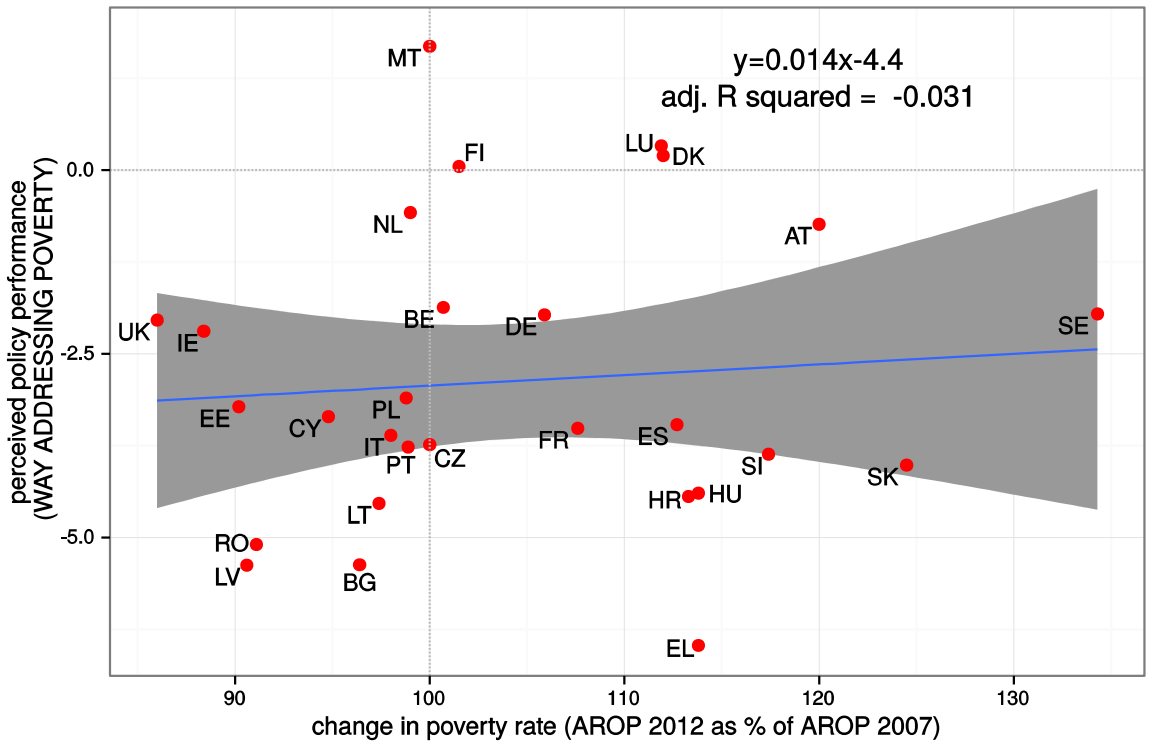


Source: Eurostat ilc_li02 table. Poverty threshold: cut-off point 60 % of equalised median household income after social transfers.

An inverse relationship would be expected between the change in the at-risk-of-poverty rate and perceived policy performance (i.e. the larger the increase in the former, the poorer the assessment of government policies is likely to be), but **there is no significant relationship between the two** (Figure 23). However, it might also be the case that assessment of the performance of governments in relation to poverty depends not on the (relative) change in (relative) poverty, but rather on the absolute level of (relative) poverty in a country.

Indeed, **the actual at risk of poverty rate is closely correlated with policy performance evaluations**. The higher the poverty is, the worse the policy evaluations are. Countries that are below regression line (like CZ, HU, SK, SI, LV) tend to be more critical towards their government. Other countries are more favourable in evaluating policy performance than it would have been expected on the basis of objective macro indicators. For example in Luxembourg, or in Malta public opinion is more positive towards policy performance than one would have expect on the basis of their measured poverty rates.

Figure 23: Perceived policy performance in addressing poverty (2014) and change of poverty rate (2007-2012)

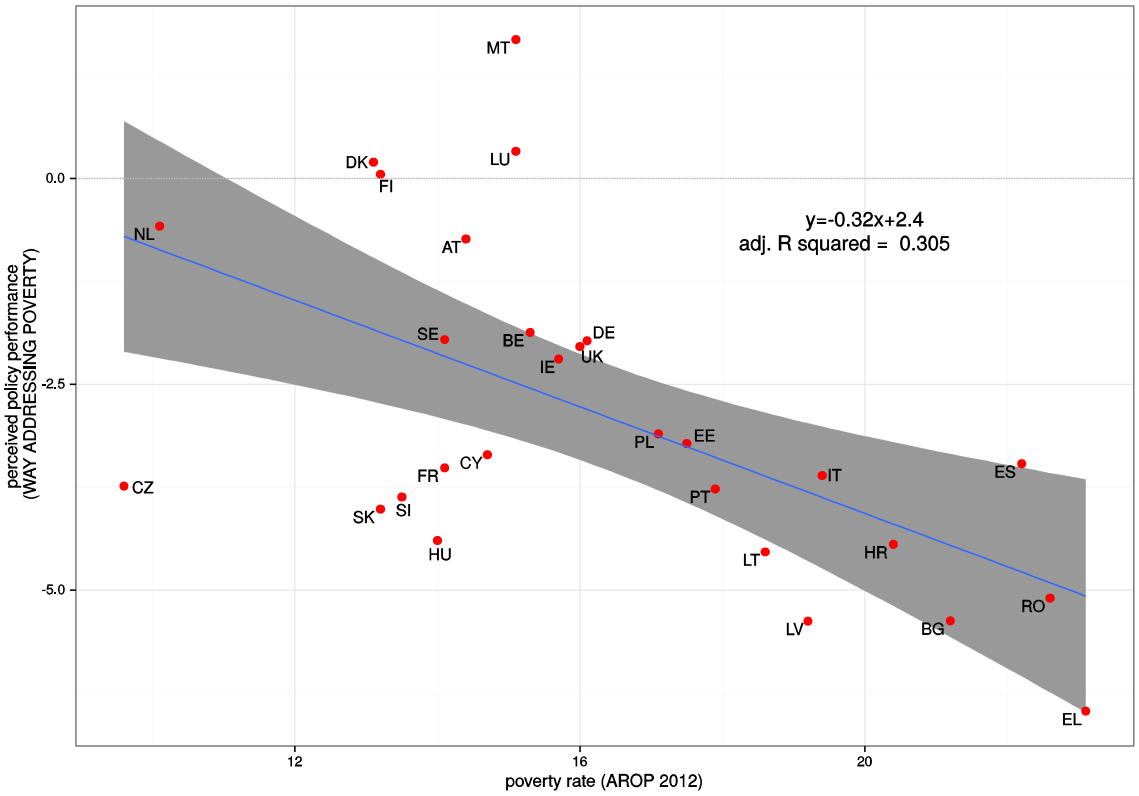


Source: Eurostat "ilc_li02" datatable and Eurobarometer 85.1. Poverty threshold: cut-off point 60 % of equalised median household income after social transfers. Change in poverty rates were calculated as 2012 rates as of percent of 2007 rates. Perceived policy performance was measured by a question that was worded as: "How would you judge the current situation in each of the following? The way inequalities and poverty are addressed in (OUR COUNTRY)." Answers were scored as "Very good"=10, "Rather good"=3.33, "Rather bad"=-3.33, "Very bad"=-10 and "Don't know" = not scored, excluded from the analysis. Plot shows country weighted means on -10 +10 scale on y axis.

Long term trends in income inequality were summarised above. The changes over the period 2007-2012 vary considerably. A continuing decline in inequality is evident in some countries (most markedly in Germany, Portugal and Romania), while there is a pronounced increase in Denmark, France and Spain. The biggest rise in inequality, as measured by the Gini coefficient, was not necessarily in the countries that experienced the most severe financial and economic crisis, however. For example, there was no change in the Gini in Greece over this period, even though the at-risk-of-poverty and

unemployment rates rose sharply[29]. On the other hand, one of the largest increases in the Gini index (from 25.2 to 28.1) was registered in Denmark, where unemployment and the at-risk-of-poverty were well below the EU average (Figure 25).

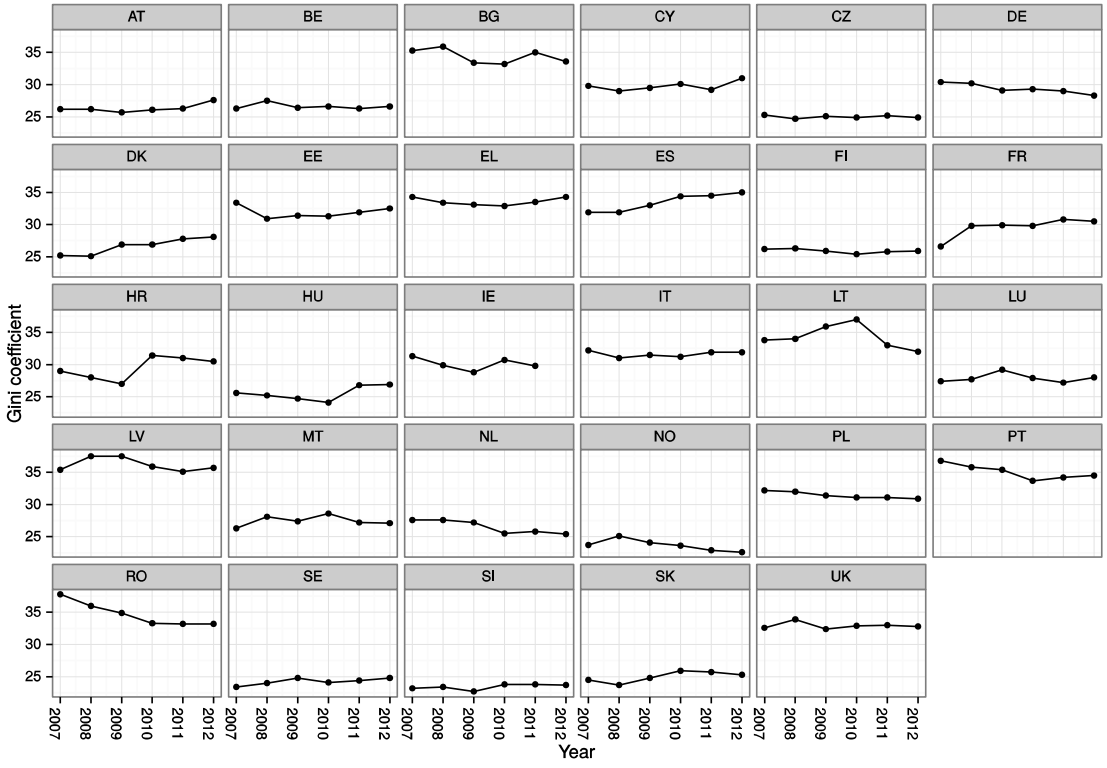
Figure 24: Perceived policy performance in addressing poverty (2014) and the level of poverty (in 2012)



Source: Eurostat and Eurobarometer 85.1

29 In the case of Greece, Eurostat data report little change in inequality in terms of the Gini index, whose value rose from 33.4 in 2007 (2008 SILC survey) to 34.3 in 2011 (2012 survey). Nevertheless, microsimulation estimates show a significant increase over the period of the current crisis, from 32.1 in 2009 to 36.4 in 2013. Note that the Gini index is more sensitive to changes around the middle of the distribution. The rise in inequality in Greece was steeper when measured by the S80/S20 quintile ratio: from 5.8 in 2007 (2008 SILC survey) to 6.5 in 2011 (2012 survey), according to Eurostat figures. Microsimulation estimates over the crisis bear this out: from 5.3 in 2009 to 7.8 in 2013, a sharp increase driven mostly by the collapse in low and very low incomes. (Matsaganis and Leventi, 2014)

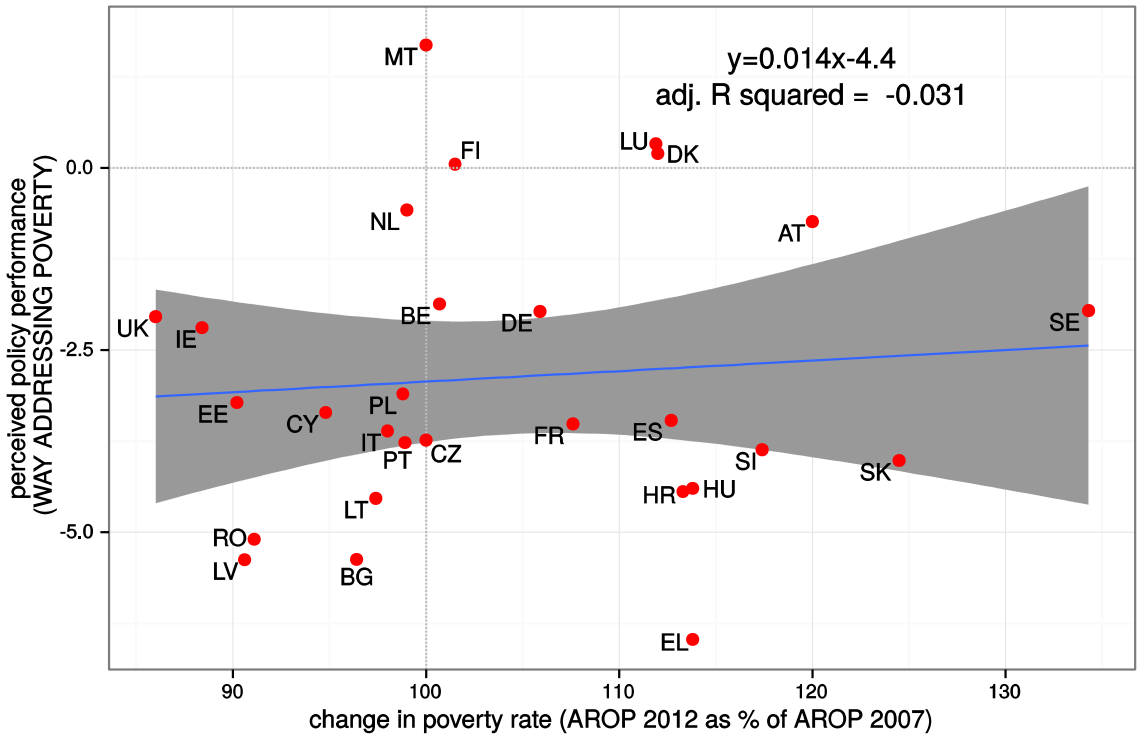
Figure 25: Change of income inequality 2007-2012 (Gini coefficients)



Source: Eurostat ilc_di12 table ("Gini coefficient of equivalised disposable income (source: SILC)").

The relationship between the change in income inequality and perceived policy performance in addressing inequalities is, therefore, not straight-forward. A larger increase in income inequality tends to be associated with better assessment of policy performance, but the correlation coefficient is not significant (Figure 26). However, again it might be the case that the assessment of government performance in reducing poverty depends not on the (relative) change in inequality, but rather on the absolute level.

Figure 26: Perceived policy performance in addressing poverty (2014) and change of inequality (2007-2012)



Source: Eurostat "ilc_di12" database ("Gini coefficient of equivalised disposable income (source: SILC)) and Eurobarometer 85.1. Perceived policy performance was measured by a question that was worded as: "How would you judge the current situation in each of the following? The way inequalities and poverty are addressed in (OUR COUNTRY)." Answers were scored as "Very good"=10, "Rather good"=3.33, "Rather bad"=-3.33, "Very bad"=-10 and "Don't know" = not scored, excluded from the analysis. For Ireland Gini difference of 2011 and 2007 was calculated as 2012 value is not available in Eurostat database.

Figures 27 shows policy performance index for poverty alleviation performance of governments in 2014, contrasted to Gini coefficient in 2012[30]. The change in the two measures (between policy performance for 2014-2009 and between Gini for 2012-2009) is shown in figure 28, in the order of the level of the inequality change in the period.

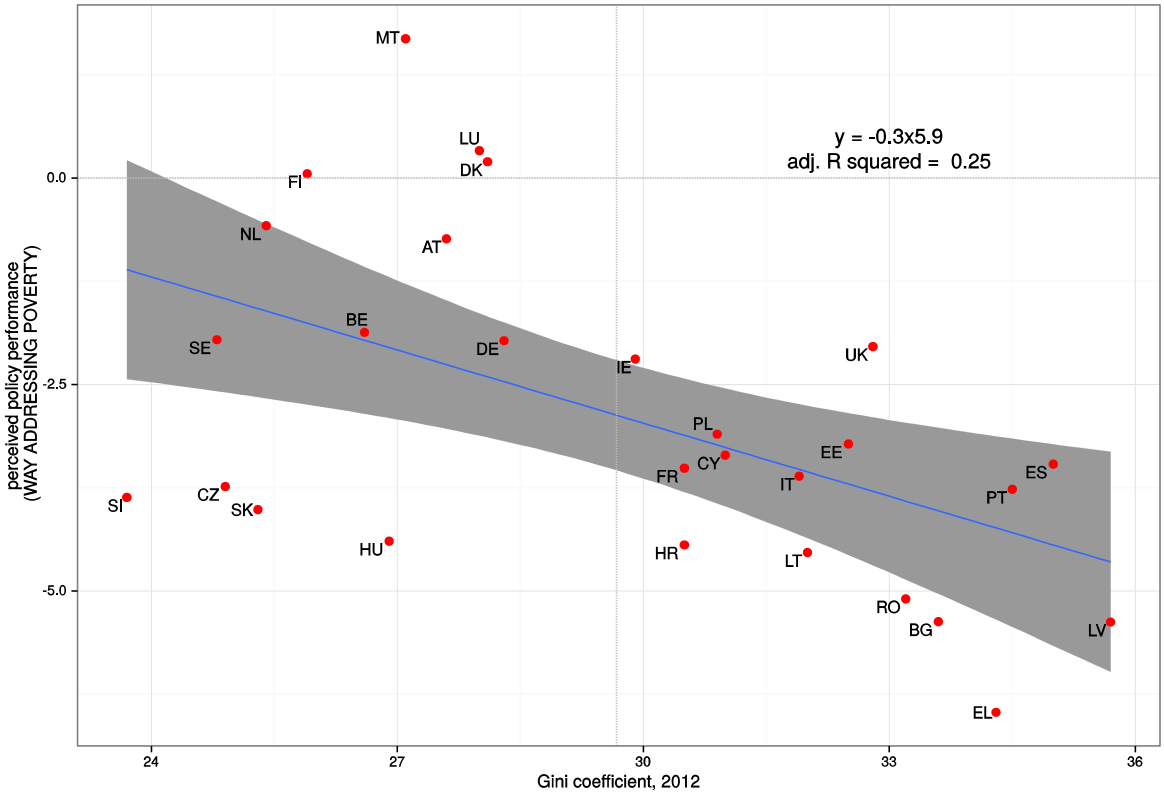
The comparison shows that the relationship between the two measures is highly inconclusive. Some examples read from the reading of the three charts are:

- The **level of inequality** (measured by Gini) seems to have **negative correlation with perceived policy performance** in 2014 (Figure 27). There are however countries deviating from the trend. The public in mostly CEE countries (Hungary, Slovakia, Czech Republic, Slovenia, Croatia, Bulgaria and Romania) plus Greece seemed to produce more negative evaluation in 2014 than it could have been predicted by the Gini levels of the time, while Malta, Luxembourg, Denmark, Finland, Austria and the UK have shown the opposite trend.
- When **the change in perceived policy performance is contrasted to the change in inequality, the results are inconclusive**. In most cases the change of policy performance evaluation is negative, regardless of the change of Gini. The only notable exceptions are Malta (where the other economic indicators have shown a very positive value) plus Hungary (where in these

30 Which would actually correspond to survey years 2008 and 2011.

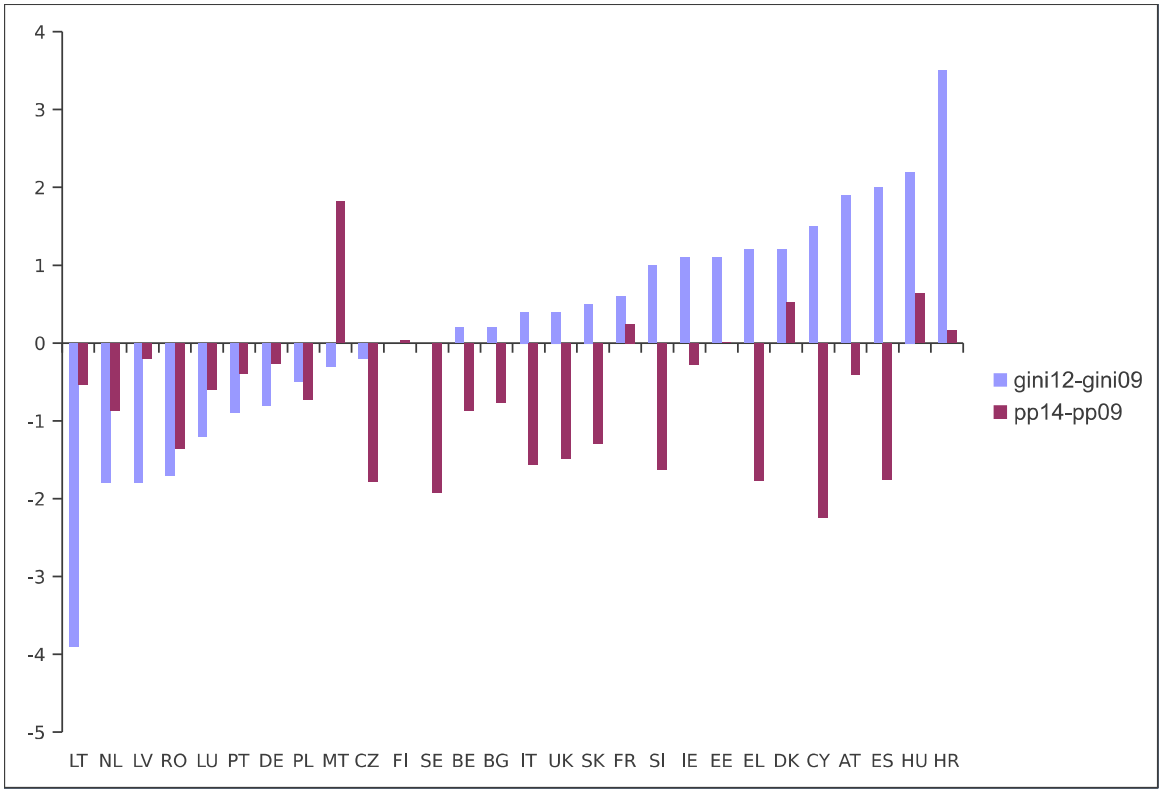
years there was a political landslide at elections and in Denmark. There are, however, some countries where inequality did not significantly change while the evaluation of policy performance significantly deteriorated (like in Czech Republic and in Sweden. In other cases (like in Lithuania for example) a large decline in inequality did not lead to improvement in policy evaluation. In other contexts policy evaluation even deteriorated despite a significant drop in inequality (see the Romanian data, for example, Figure 28).

Figure 27: The value of perceived policy performance index in 2014 and of Gini coefficient in 2012, EU countries



Source: Eurostat and Eurobarometer 85.1

Figure 28. Change in perceived policy performance (2009-2014) and in Gini (2009-2012) (Countries are ranked by the level of their inequality change)



Source: Eurobarometer 85.1 and 71.2

5. The demand for redistribution

This section will examine the relationship between attitudes to redistribution and economic developments. The interest is in finding out whether economic recession has increased the demand for redistribution in the different Member States; whether this varies between countries and if so why; how far the attitude of people towards welfare is related to their socio-demographic characteristics and their expectations as regards their own economic prospects as well as those of the country in which they live. Possible interactions between the two will also be explored.

The analysis will be based on the 2014 Eurobarometer (81.5) on the social climate, poverty and government policies.

To assess the relationship at the macro level, distance-based measures of income inequality (P-ratios based on data from the EU-SILC) will be defined and tested. A composite index will be constructed on the basis of public opinion (Eurobarometer) data to measure attitudes towards redistribution.

Previous analysis of this (see Tóth and Keller 2013) has shown that at the macro level there is a continuing high level of support for redistribution in many EU countries though there is wide variation between countries. Support for redistribution is related to various measures of inequality (most notably, to the extent and scale of relative poverty). At the micro level, support for redistribution, while mostly derived from rational self-interest (material circumstances, labour market situation, expected mobility), is also driven by various subjective factors and general views about the causes of poverty and so on. In countries with high levels of overall inequality, support for redistribution (on the part of all income groups) tends to be higher. In countries with very high levels of inequality, however, the difference in support for redistribution begins to narrow, which suggests a curvilinear relationship, though the slope of the gradient seems steeper in countries with average levels of inequality.

This section seeks to throw further light on these relationships.

5.1 The change in overall demand for redistribution, 2010-2014

To track the changes in general attitudes towards redistribution and state provision of social policies, we utilize that both the 2010 and the 2014 Eurobarometer surveys contained three question offering trade-offs regarding state versus market provision of various public services. [31]

For each field a **"public provision solution"** was coupled by a **"market solution"** for the various services. First we go through the time trends of these two options, separately for employment (Figures 29a and 29b) education (Figures 30a and 30b) and general social spending (figures 31a and 31b). Next, we observe how responses to an overall responsibility of the public to provide for the citizens (Figures 32a and 32b) have been changed during the difficult years of the economic recession.

The figures show changes of country averages between the two dates. 2010 and 2014 values of the share of people choosing the various options are shown on the vertical and on the horizontal axis, respectively. A position above the diagonal shows that there were more people choosing the relevant response category in 2009 than there were in 2014, i.e. the popular support for that category has diminished during the five years in-between. What is striking at the first glance: **for employment, education and for general social spending, the share of people supporting the "state option" has declined in most countries** (see figures 29a, 30a, 31a and 32a, respectively). Only in the case of employment policies and only in a few countries (Greece, Romania and Italy, and to a smaller extent in Slovenia) did support for the statement "It is primarily up to national government to provide jobs for the unemployed" increase in the period. For education involvement, Romania is the only example for an increasing share of people supporting the view that "Education should be totally free". There is not a member state of the EU where the support of higher social expenditures at the expense of higher taxes. The same trend is shown for the support of the statement that "the national government shall take more responsibility to ensure that everyone is provided for" (Figure 31a).

The declining support for the state solutions led to **an increase of the support towards market solutions in some (but not all) of the cases**[32] (see figures 29b, 30b, 31b, 32b). The expectations towards the market to provide jobs has clearly increased in Malta (where, otherwise, there was a massive employment expansion in these years). Interestingly, in many other countries (like Spain, Ireland, Slovakia, Cyprus, Austria, Portugal, Finland) there was a clear shift in the attitudes (while support for the state (employment) solution decreased, the support for the market solution increased. Also, similar shifts towards market solutions were experienced in the same countries mentioned above, plus in Luxembourg and in Belgium. The largest shift could be seen for shift in support for the social expenditures/taxes trade-offs.

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[31] QA9 People think differently on what steps should be taken to help solving social and economic problems in (OUR COUNTRY). I'm going to read you two contradictory statements on this topic. Please tell me which one comes closest to your view. (1) It is primarily up to the (NATIONALITY) Government to provide jobs for the unemployed (2) Providing jobs should rest primarily on private companies and markets in general (3) It depends (SPONTANEOUS) (4) DK

QA25b And which of these two statements comes closest to your view? (1) Education should be totally free, even if this means that the quality might be lower (2) Tuition fees are necessary for providing high quality education, even if this means that some people won't be able to afford it (3) It depends (SPONTANEOUS) (4) DK

QA25c And still about the different steps that should be taken to help solving social and economic problems in (OUR COUNTRY), which of these two statements comes closest to your view? (1) Higher level of health care, education and social spending must be guaranteed, even if it means that taxes might increase (2) Taxes should be decreased even if it means a general lower level of health care, education and social spending (3) It depends (SPONTANEOUS) (4) DK

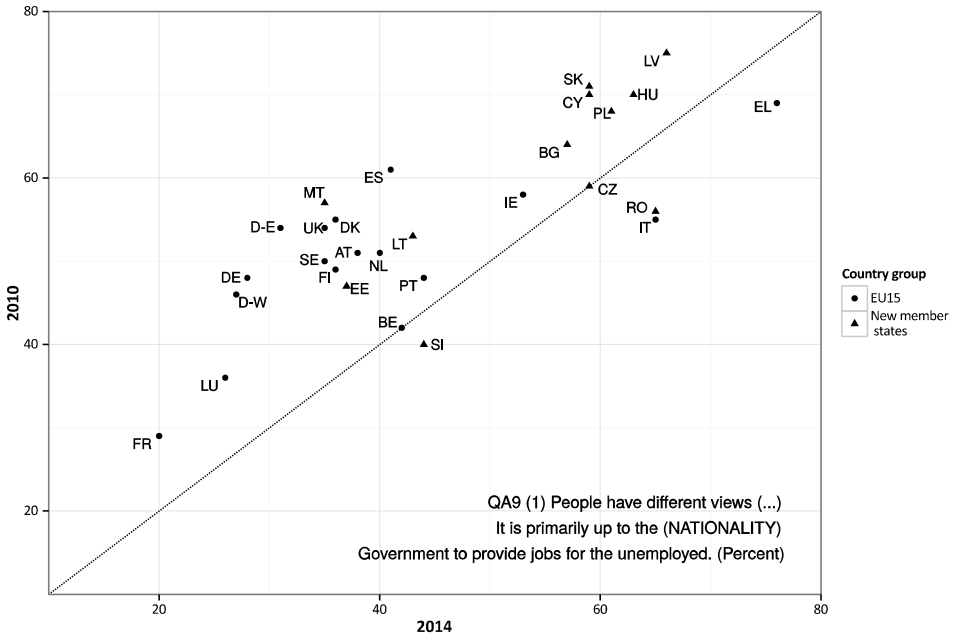
QA25d And which of these two statements comes closest to your view? (1) The (NATIONALITY) Government should take more responsibility to ensure that everyone is provided for (2) People should take more responsibility to provide for themselves 3) It depends (SPONTANEOUS) (4) DK

32 This is also means that the « it depends » answers also increased in 2014 relative to 2009.

Very strong shift towards tax cuts (even if this leads to lower social expenditures) was measured in countries like (Greece, Cyprus, Romania, Portugal, Italy and Poland, a group from which only the latter stand out as a country having been able to survive without any serious crisis effects). To a smaller extent attitudes shifted into the same direction in France, Slovakia, Ireland and Finland. As for the general state responsibility towards its citizens in general provisions (see Figure 32b), shifts away from state responsibility was clearly measured in Malta, Austria, Romania and Hungary.

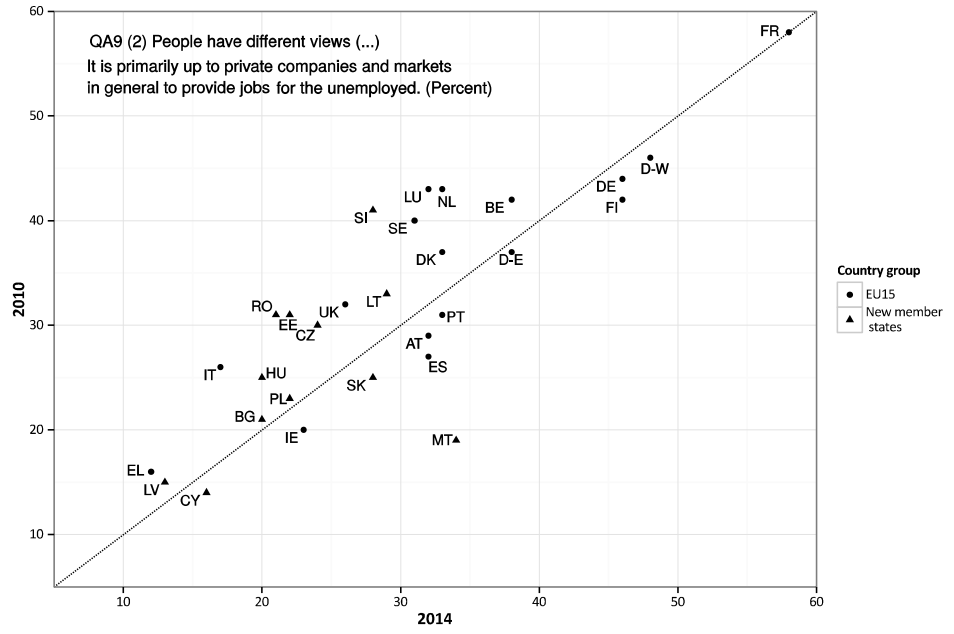
Figure 29: Employment: national governments or markets? Support to the "state" solution (30a) and to the "market" solution (30b) (The share of people agreeing to the various options in 2010 and in 2014)

Figure29a



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

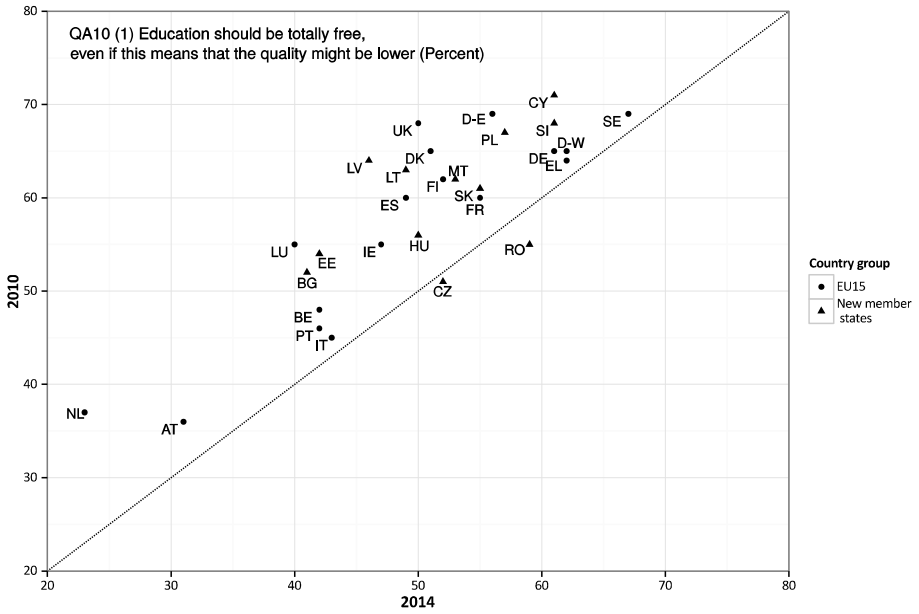
Figure 29b



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

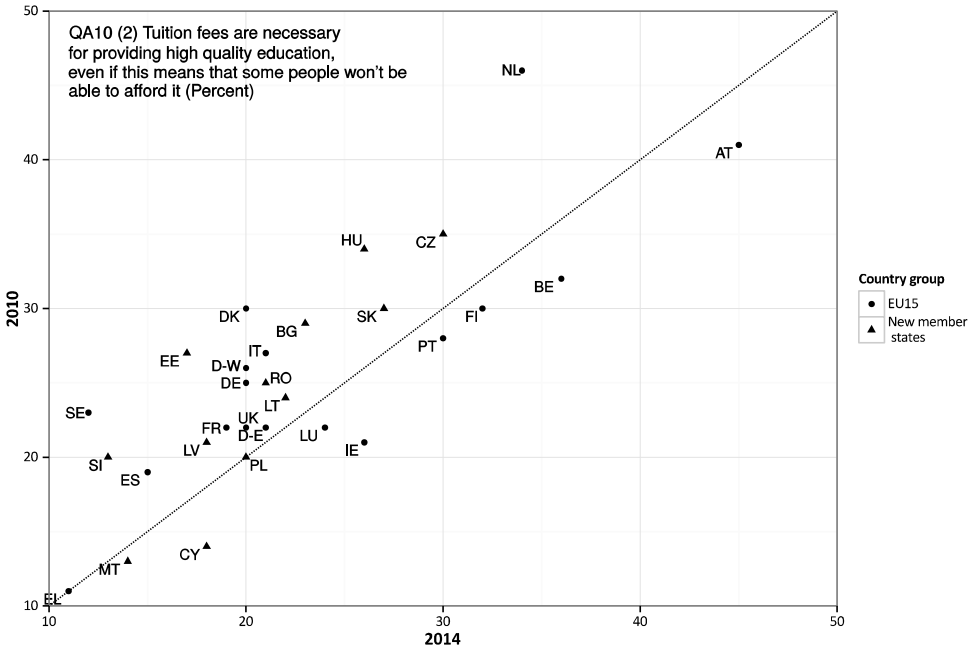
Figure 30: Education: national governments or markets? Support to the "state" solution (31a) and to the "market" solution (31b) (The share of people agreeing to the various options in 2009 and in 2014)

Figure 30a



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

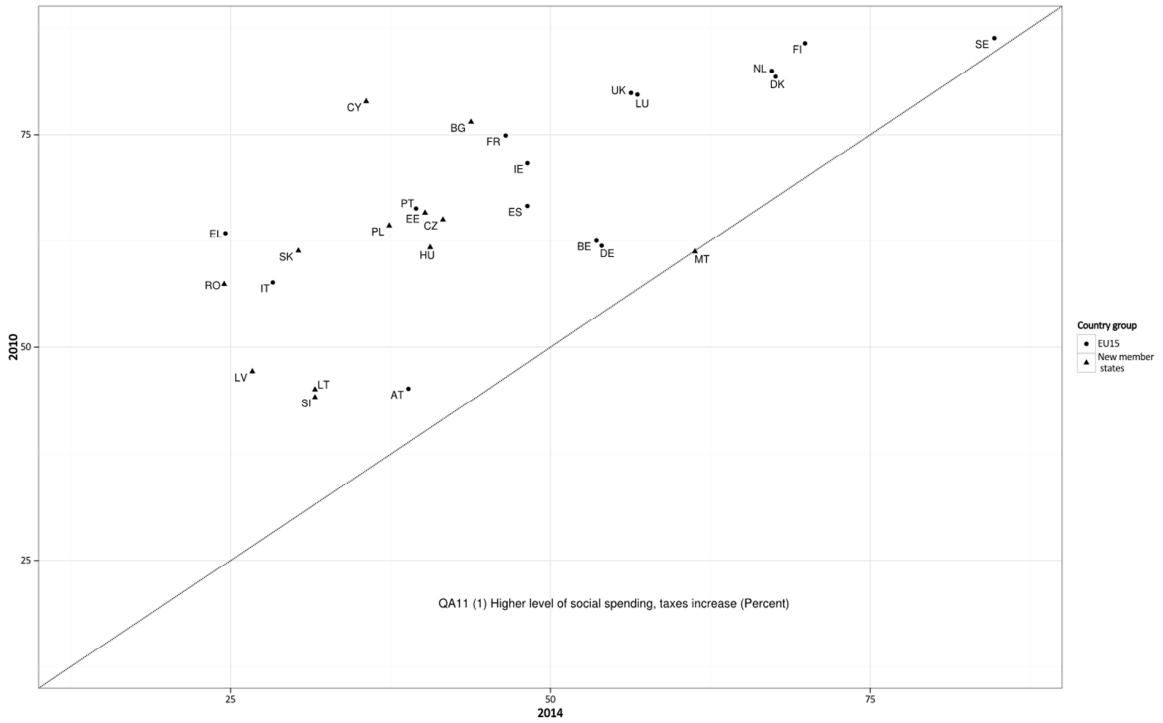
Figure 30b



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

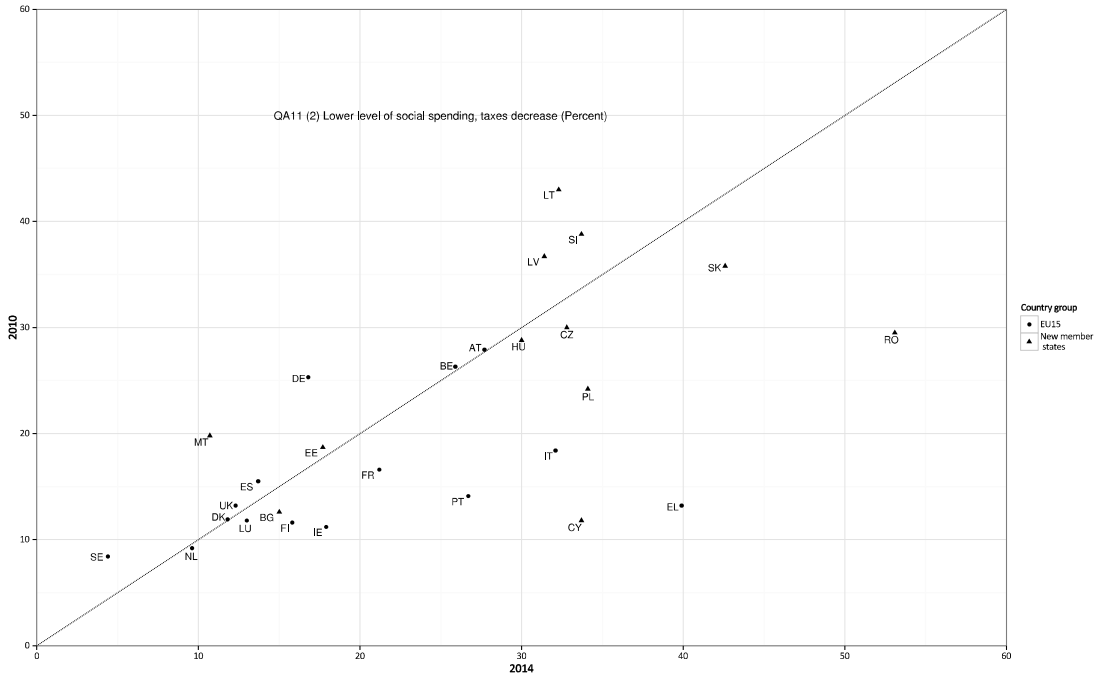
Figure 31: General social spending: higher spending-higher taxes or lower taxes but lower spending? Support to higher spending (28a) and to lower taxes (32b) (The share of people agreeing to the various options in 2010 and in 2014)

Figure 31a



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

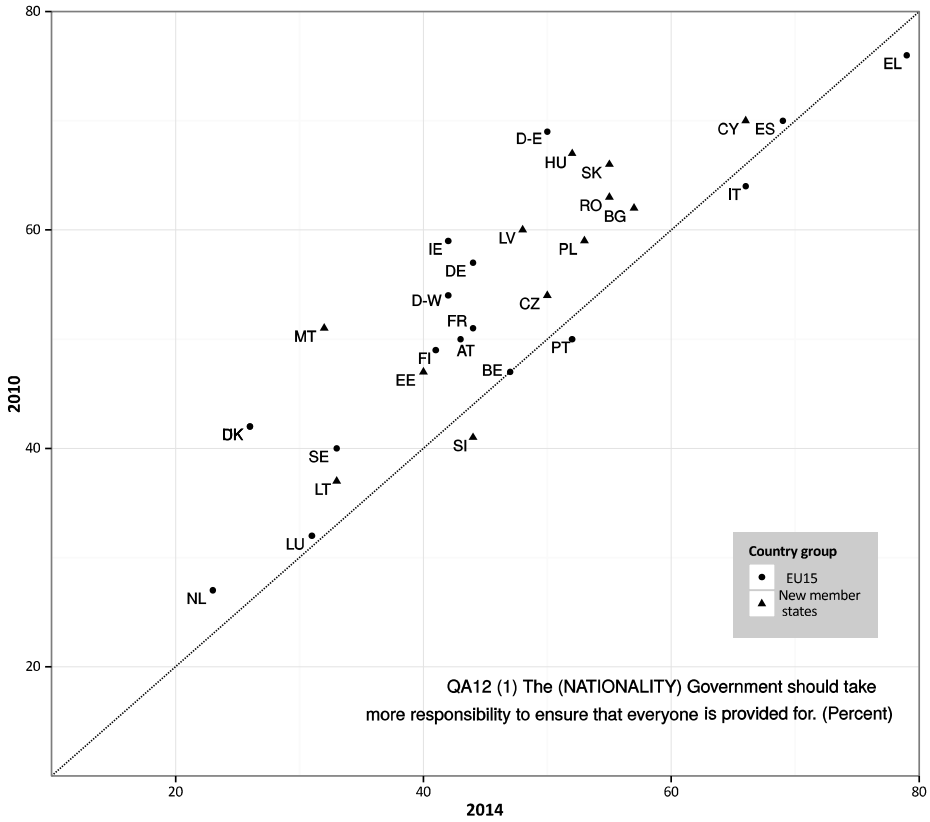
Figure 31b



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

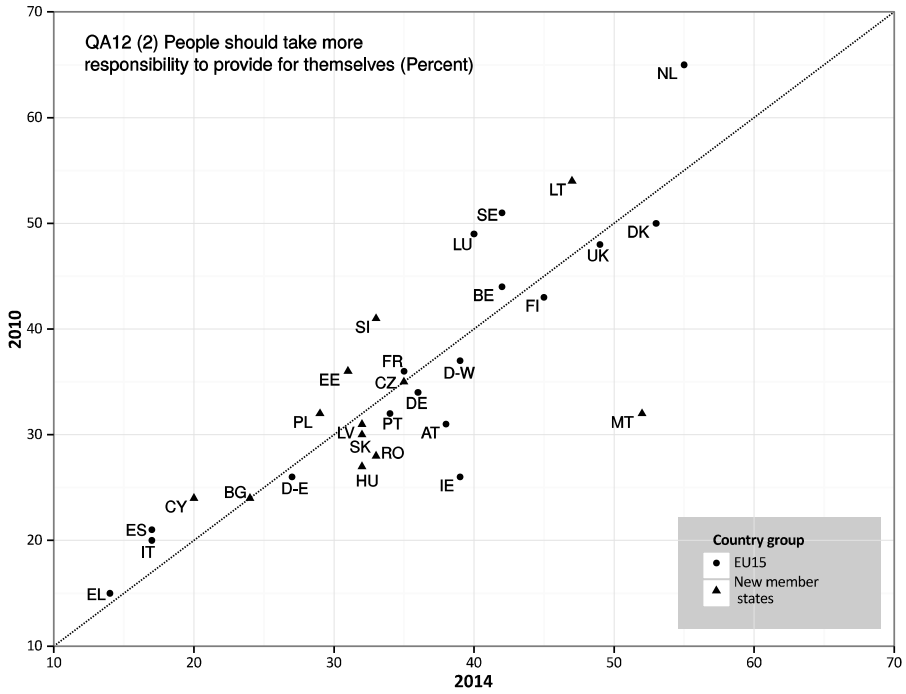
Figure 32: Shall government responsibility be higher to provide for citizens (32a) or shall people take more responsibility to provide for themselves (32b)? (The share of people agreeing to the various options in 2010 and in 2014)

Figure 32a



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

Figure 32b



Source: Eurobarometer 74.1 (2010) and Eurobarometer 81.5 (2014).

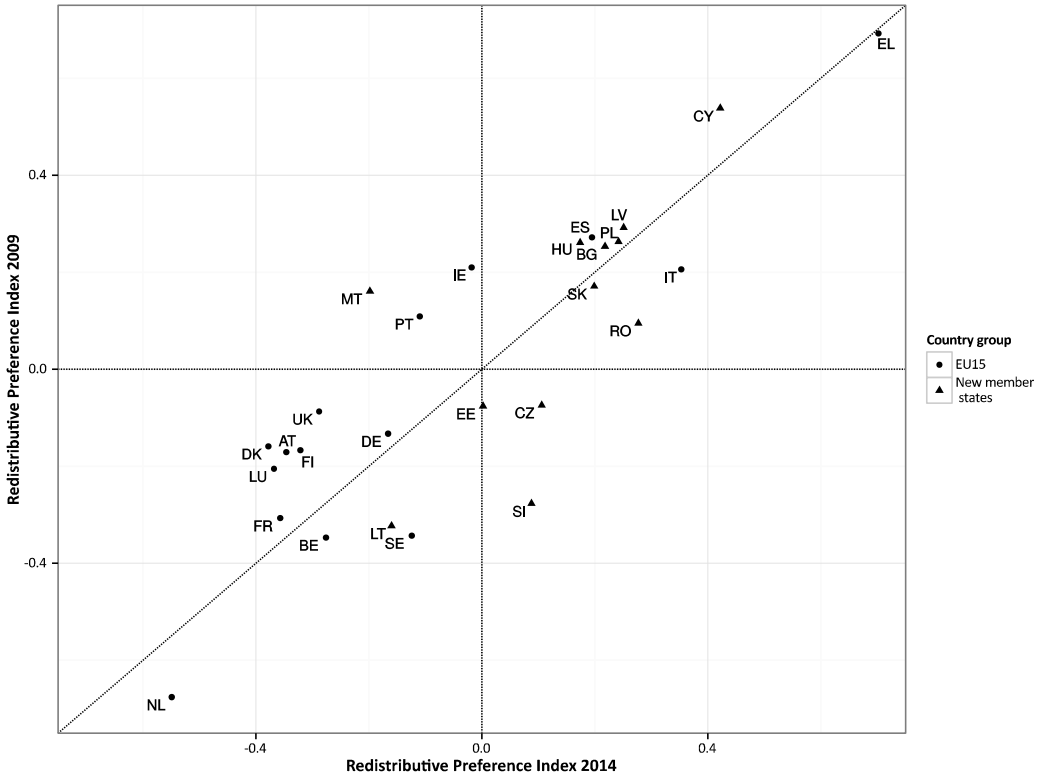
This is, however, only a series of items for the support of various social policies and not necessarily the demand for redistribution in general. To measure the latter, we created a composite indicator from three of the above elements (answers to the employment question, to the education question and to the general state provision question[33]).

To define the dependent variable (an index of redistributive preference), we applied a principal component analysis (PCA) for the three basic variables listed above, and we nominate the first principal component as redistributive preference index (RPI), which is going to serve as dependent variable in our analysis. The correlations of RPI with the component variables are shown in Table A5 in Annex. The variance explained is about 45 percent of the total variance of the three elementary variables. The strongest correlate (with RPI) is the question on the general requirement that the state has a duty to provide for its citizens to a maximum extent (r=0.744).

The country level averages of the (composite) RPI (as a dependent variable for the present analysis) does have a significant cross country variance in both years. **The largest demand for (further) redistribution is measured in Greece and Cyprus in both years and the lowest level of the demand for redistribution is shown in the Netherlands in both years**. In-between the extremes, there are various country groupings. RPI was above average in Latvia, Spain, Poland, Hungary, Bulgaria, Ireland, Italy, Malta, Slovakia, Portugal and Romania (see the country points above the zero line in Figure 33). Within this group, the demand for redistribution substantially declined in Malta, Portugal, Ireland and largely increased in Romania and in Italy between 2009 and 2014. The demand for redistribution was lower than average (in addition to the "extreme" Netherlands value) in Belgium, Sweden, Lithuania, France and Slovenia, followed by Luxembourg, Finland, Austria, Denmark, Germany, United Kingdom, Estonia and the Czech Republic. Within this group, the demand for redistribution is increased in Czech Republic and Slovenia (shifting these countries above the 2014 average), but also in Sweden, Lithuania, Belgium and Estonia (see the rightward movements in the lower half of the Figure 33).

33 We had to abandon the idea of including the fourth item (the one about the social expenditures/taxes trade-offs, due to the fact that responses to this question negatively correlated to the other three elements.

Figure 33. Change in the values of the dependent variable (RPI) for EU countries (PCA load scores) between 2009 and 2014



Source: Eurobarometer 72.1 (2009) and Eurobarometer 81.5 (2014).

5.2 Inequality change and the demand for redistribution

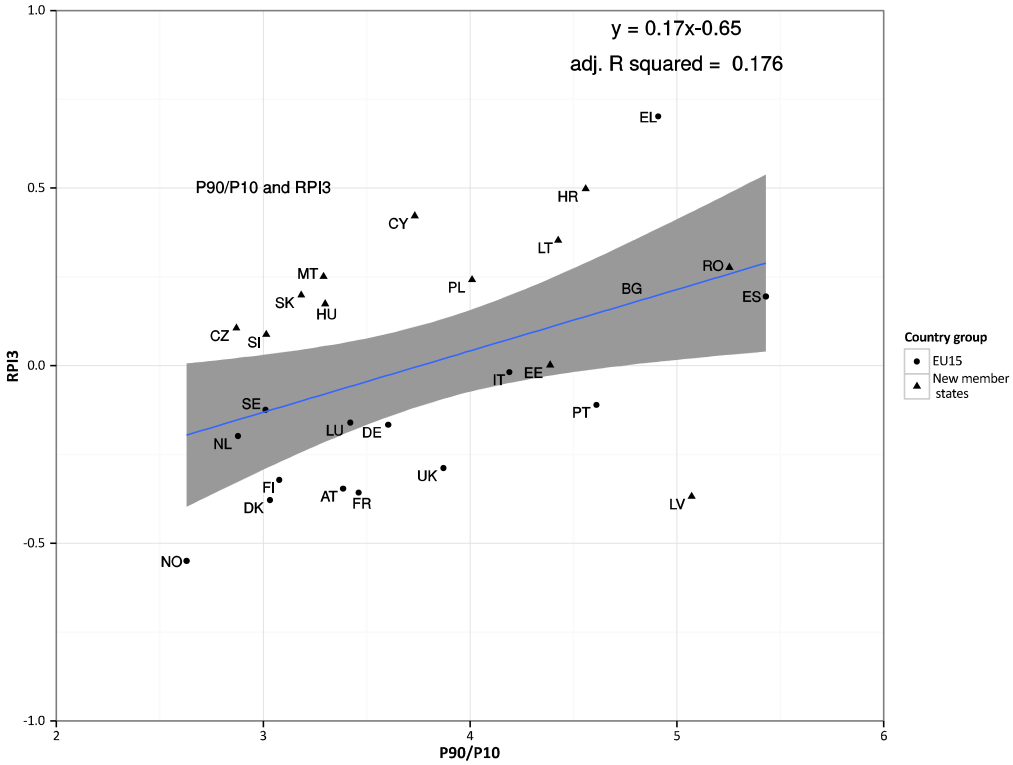
Following suggestions by Finseraas (2008) Lupu and Pontusson (2011) and Tóth and Keller (2013) we define inequality by various structural distances within the inequality range. We approximate inequality distance by percentile ratios (P90/P10 for the overall distribution, P90/P50 for the upper parts and P10/P50 for the lower parts of the distribution). The former measure reflects the distance of the median from the rich, while the latter reflects the distance of the median from the poor. For the results, see Figures 34, 35 and 36.

The correlation between RPI and measured overall inequality (measured by P90/P10) exists (R2 is around 18 percent), but there are many examples off the trend. Consider for example the case of Greece and Croatia, where actual RPI is significantly higher than the one "predicted" by the level of inequality in this bivariate presentation. Also, Latvia, UK and Portugal (to mention a few only) are examples of downward alterations from the predicted values of RPI.

The correlation between RPI and inequality in the lower segment of the distribution (P10/P50, the distance between the poor and the median) is higher than the correlation measured for the overall inequality (R2=25%). Again, there are some deviations from the general trend which weaken the correlation (like Latvia and Norway downwards and Greece, Croatia and Cyprus "upwards").

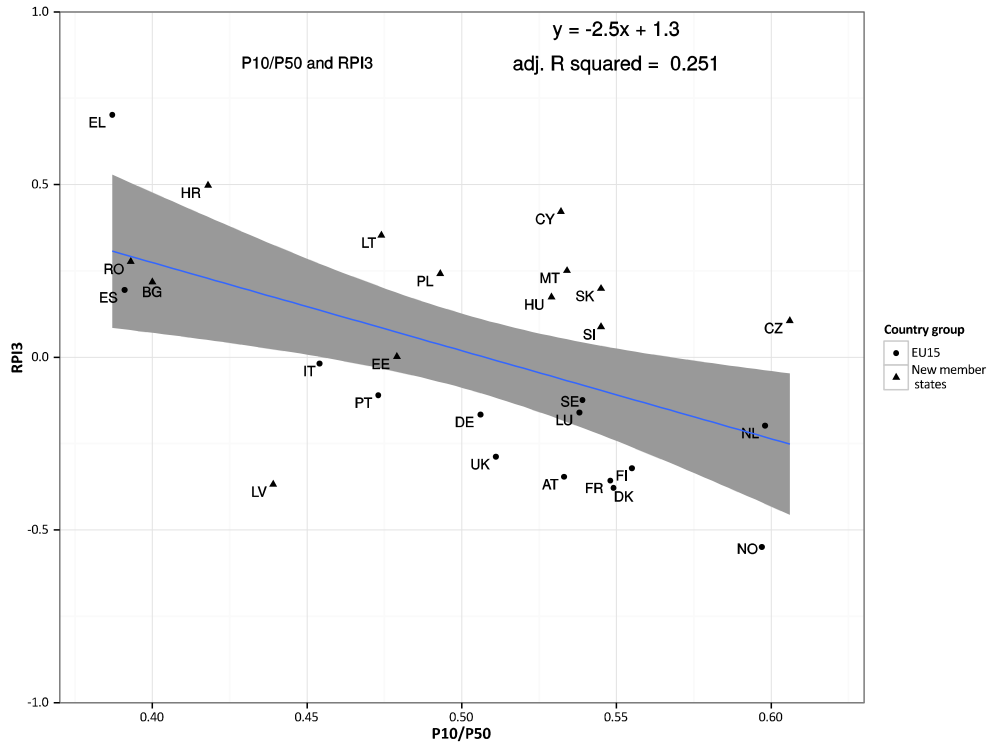
The correlation between RPI and inequality in the upper segment of the distribution (P90/P50, the distance between the rich and the median) is much weaker than any of the above two. The outliers are the usual suspects (Latvia, Norway in one direction and Greece, Croatia and Cyprus in the other (R2=3%).

Figure 34. Redistributive preference (2014) and inequality (P90/P10)



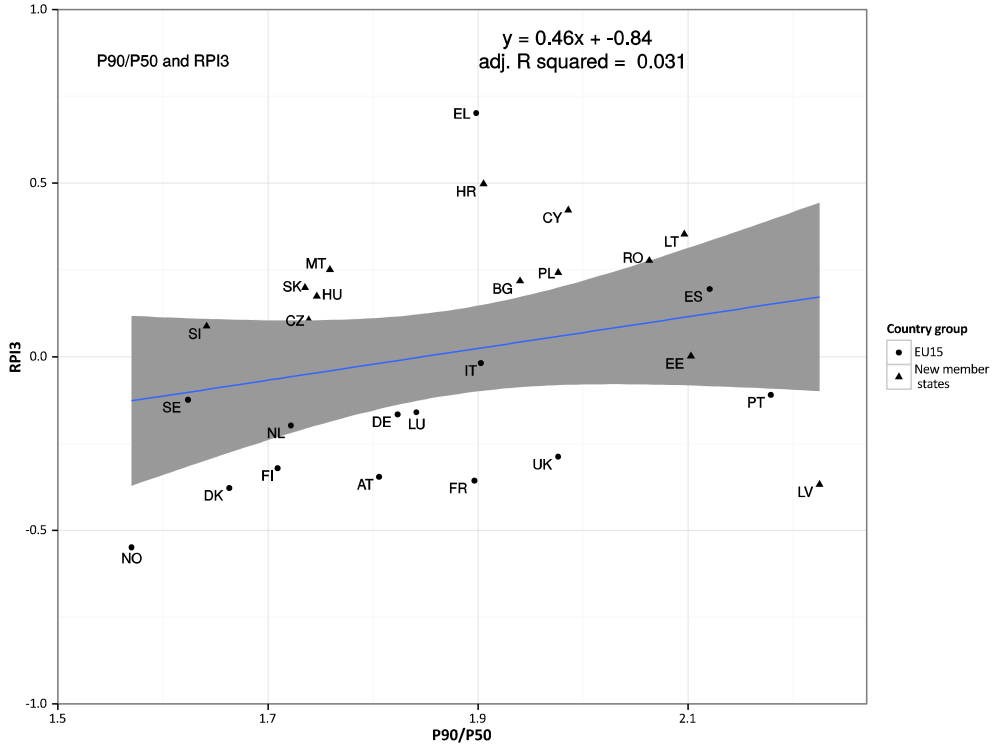
Source: Eurobarometer 81.5 (2014) EU SILC 2012.

Figure 35. Redistributive preference and inequality (P10/P50)



Source: Eurobarometer 81.5 (2014) EU SILC 2012.

Figure 36. Redistributive preference and inequality (P90/P50)



Source: Eurobarometer 81.5 (2014) EU SILC 2012.

All in all, we can conclude that preference towards redistribution is more influenced by the lower part (below median) of the income distribution, than by the upper part (above the median).

5.3 Micro determinants of the demand for redistribution

As a final step we, similarly to the analysis presented for the ESS variables, make an attempt to understand the micro level determinants of redistributive preferences in various EU member states. To explore this, we build multivariate OLS models for the pooled all European dataset, with introduction of country dummies to control for country specific fixed effects[34].

The right hand side variables are the ones that are made possible by the variable structure of the EB surveys in both of the years.

The **basic socio-demographic variables** (age[35], education, gender, settlement, household size) are self-explanatory.

The **material status index** is created from a general ten-point scale self evaluation of the (material) situation of the household. We regrouped this ten-point scale into a six point-scale by merging together the first three categories and (separately) the last three.

For the definition of the **„expectations"** variable we use the question: „12 month expectations for the situation to get better, same or worse".

Failure attribution in terms of poverty is based on a question about why are there people who live in poverty? The choice of one of the four options (they are unlucky, lazy and lack willpower, there is much injustice in the society) provided a hint on the respondents' opinion on what they think poverty can be attributed to. Also, a question on how respondents evaluate poverty (do they think believe the assertion that poverty is an "inevitable part of progress") was used here.

Within the **social context/values** bracket we have, for each and every respondent, their general subjective evaluations of the circumstances in their countries. For all thinking poverty is „very widespread", this variable takes the value of 1, and 0 otherwise.

Finally, **inequality sensitivity** is added. This binary coded variable has the value of 1, if someone "totally agreed" the question that "income differences between people are far too large", and the value is zero otherwise[36]. We always put this variable to be the last in the sequence of our models. The reason is that we are hesitant to believe that it is independent of the redistributive preference. It might well be that these two variables are strongly intercorrelated, however.

The above variables are sufficient to measure determinants of redistributive preference in a way that our results can reflect theoretical considerations regarding the micro determinants of redistributive preferences (for theoretical backing of this classification, see Tóth and Keller 2013 and Förster and Tóth, forthcoming).

[34] The following multivariate analysis focuses explicitly on the micro correlates (leaving all macro effects in the country dummies) unlike in the ESS multivariate analysis which actually tried to see what's left there for the macro-level variables once micro variables, time dummies and country dummies are controlled for.

[35] EB surveys have a lower age limit (15 years of age) for the respondents than many scientific and opinion surveys (18 years). For this analysis we excluded respondents from the age group 15-17 so that we have a 18+ population in our sample.

[36] The wording of this question is as follows: Please tell me if you totally agree, tend to agree, tend to disagree or totally disagree to the statement that "Nowadays in (OUR COUNTRY) income differences between people are far too large"

Table 5. Independent variables used in the Eurobarometer analysis

Number of the model	Name of the explanatory mechanism	Definition
I.	Basic model	Country dummies (reference: Germany)
II.	Demography	Gender (male=1).
		Age (18-30, 31-40, [41-50], 51-60, 61-70 and 70+)
		School (age of finishing school: less than 15, [between 15 and 20], above 20)
		Settlement (village, [small town], large town) Variable d25
		Household size. Total number of people living in the same household. This variable is calculated from three questionnaire variables.
III.	Material self interest	Material status index (continuous, see the construction above)
		Labour market position (self employed, [employed], not working).
IV.	Expectations	Future expectations (better, [same], worse) Question used: "What are your expectations for the next twelve months: will the next twelve months be better, same or worse when it comes to the financial situation of your household?" Three binary coded variables
V.	Failure attribution	Poverty attribution ([unluck], lazy, injustice, progress) Question used "Why in your opinion are there people who live in poverty? Here are four opinions: which is closest to yours?" (qa8) Four binary coded variables.
VI.	Social context/values	Poverty perception: Binary coded variable: 1, if someone perceive that poverty is "very widespread" in the country, the value is zero otherwise
VII.	Inequality sensitivity	Binary coded variable: 1, if someone "totally agreed" the question that "income differences between people are far too large", and the value is zero otherwise

Note: for the regression analysis: categories in square brackets are omitted.

We might want, in general, to predict redistributive preference (RPI) by individual attributes (X_{ij}) and by contextual variables (Z_{ij}), where $i=1,2,…n$ is the number of individuals in the analysis and $j=1,2,…p$ is the number of Level 2 units (countries) into which all Level 1 units are nested. The general structure of a full-fledged analysis is summarized in equation (1).

$$RPI = a + bX_{ij} + c_0Z_j + U_{0j} + E_{ij} \quad (1)$$

where *a* denotes the intercept, *b* and *c* denote coefficients at individual and country level, respectively, E_{ij} is for individual level residuals (varying over Level 1 units, reflecting the unexplained variance between individuals) and U_{0j} is the Level 2 residual (reflecting the unexplained variance between countries).

To answer our research question about the effects of individual attributes on RPI, we predict a simple OLS regression and focus only on micro variables here. Since we assumed that observations within countries are correlated in some unknown way, we inserted country fix effects dummies into the models. The equation we finally estimated is the following:

$$RPI = a + bX_{ij} + E_{ij} \quad (2)$$

for a country *j* (where *i* goes for the sample size of the given country). In these equations the vector X is filled by variables specified in Table 5. To answer other questions about the connection between RPI and various country level inequality measures, represented by the term c_0Z_j, we made an attempt in the previous section, therefore, we do not attempt to integrate the country level variables into the full regression models.

As mentioned, to test the effects of socio-economic factors, we build simple pooled OLS regressions (in the sample of all the available EU member states, with country dummies introduced to control for possible country specific fixed effects). OLS unstandardized parameter estimates (B coefficients) for the pooled sample are shown in Table 6 and Table 7 (for 2009 and 2014, respectively), with an indication of how estimates change when new variables of the consecutive models step in. The first (with country dummies) and the second (with the socio-demographic variables) models serve to identify cross country differences and control for various basic characteristics. From Model III to Model VII, additional groups of variables (of material self-interest, for subjective expectations, for failure attribution attitudes and general social/cultural attitudes, and inequality aversion) step in, respectively. The results are as follows.

In general**, the performance of the basic model** (Model I, with the country dummies and no other variables in the model) **is not very strong**: the explained variance amounts to 7 percent only in 2009 and some 9 percent in 2014. The explained variance significantly increases with the introduction of the subsequent models: in the "full" Model VI, the adjusted R2 reaches 17 percent in 2009 and 20 percent in 2014.

From the observation of the subsequent introduction of the various block of variables, we may conclude the followings:

- From among the demography variables there are **significant gender differences in redistributive attitudes**: males are much less pro-redistribution than females. This characteristic is clearly visible in both years.
- The **age** variable, in 2009, is non-significant for the younger (below 40 years of age) while it is gently positive for the 50-60 respondents and negative for those above 60 years of age. To explain, it should be taken into account that that elements of RPI include jobs provisions, higher education involvement, overall provisions by the state, but no mention is made to pensions. The

pattern of age division has changed: younger cohort became more pro-redistributive after 2009[37].

- By education attainment, **higher educated are less in favour of redistribution**, while for the lower educated the parameter estimates are positive (and significant for the primary educated) [38].
- There are **no significant differences between villagers and large town citizens** (in pairwise comparisons to those living in cities) in 2014. This is a change since 2009, when villagers were less proredistributive than those living in larger cities.
- **Household size** was not significant factor in 2009, but it **became significant by 2014.** A further analysis of this change in relation to the changes in directions of intergenerational redistribution in the European Union Member States would perhaps be worth a try.
- The introduction of material self-interest variables brings only a moderate increase of the explained variance (from 9 to 11 percent in 2009 and from 10 to 11.5 percent in 2014).
- **Self-employed have less, those not working have more taste for redistribution** than the reference category of the employed people, and this is prevalent in 2009 and in 2014 as well.
- People **with material resources (self evaluated to be[39]) at low levels have a significantly larger appetite for redistribution** as compared to those in the middle and people towards the higher end have much lower support for redistributive arrangements. This is true in 2009 and in 2014 as well.
- The introduction of subjective expectations brings a slight decline in the parameter estimates of the material positions' effects (although this is less so in 2014 than it was measured in 2009) and show the expected signs: **those expecting a worsening position will have a significant positive evaluation of redistribution**.
- The difference of attitudes of **those evaluating their one year prospects positively** from those who do not expect any change was not significant in 2009, but it **became significant by 2014** (also in 2009 the sign of the parameter was pointing into the expected – negative – direction).
- The introduction of the failure attribution arguments brings an additional 2-3 percentage point increase in the explained variance. **People believing that the poor get into poverty because of laziness have a smaller redistributive taste** while those who think poverty is a consequence of injustice in the society have a larger redistributive preference index.
- People evaluating poverty a problem in the country are more pro-redistributive than others.
- In our last (Model VII), we added the variable **"inequality sensitivity"**. Those evaluating current income inequalities "too large" produce high coefficients: holding this opinion **increases the chance of being pro-redistributive**.

[37] It should be noted, however, that while age 61+ category contains – depending on retirement age provisions in the given countries – a different mix of the employed and the not working by country, the youngest age cohort is also very heterogeneous by the same categories, depending on the phase of the education expansion process.

[38] Unfortunately, the measurement of education in Eurobarometer is very weak : we have only a variable measuring at what age did the respondent finish schooling. According to this, we can differentiate between those finishing education a tor before 15 years of age, above 15 and buta t most 20 and above 20. Needles to spend much words on how this can be distortive between countries with different schooling systems, dropout rates, life long learning institutions, etc…

[39] Again, we have to complain about the usefulness of the material well-being variables in Eurobarometer. Putting ones material situation on a ten step ladder (as it is measured here) introduces a great deal of subjectivity into this variable. Capabilities are mixed with aspirations, subjective evaluations with objective situation, etc. However, we cannot do much with this here but writing footnotes like this…

However, since the zero order correlation between our dependent variable (RPI) and "inequality sensitivity" is (to some extent by definition) fairly strong (-0.22), we do not draw serious conclusion from this result, but it is noteworthy that people with high inequality sensitivity have a stronger preference for redistribution, holding all other differences constant (and, potentially, vice versa.)

Table 6. Micro determinants of redistributive attitudes in 2009. Results for OLS regressions (dependent: RPI3)

	Basic model	Demography	Material self-interest	Expectations	Failure attribution	Social context	Inequality sensitivity
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
(Constant)	-0.173***	0.065	0.314***	0.249***	0.097	0.029	-0.077
Gender		-0.119***	-0.085***	-0.084***	-0.076***	-0.071***	-0.071***
Age 18_30		0.007	-0.02	-0.013	0.019	0.024	0.023
Age 31_40		0.018	0.012	0.017	0.037	0.037	0.037
Age 51_60		0.055***	0.056***	0.052***	0.036*	0.033*	0.032*
Age 61_70		-0.046**	-0.045**	-0.047**	-0.063***	-0.063***	-0.065***
Age 71+		-0.033***	-0.029***	-0.031***	-0.02**	-0.016	-0.018*
Education <15		0.141***	0.094***	0.092***	0.101***	0.099***	0.097***
Education 20+		-0.206***	-0.157***	-0.156***	-0.164***	-0.151***	-0.147***
Village		-0.05***	-0.041***	-0.041***	-0.031**	-0.032**	-0.035**
Large towns		-0.013	-0.002	-0.002	-0.001	0.000	0.001
Household size		-0.001	0.002	0.000	-0.001	0.000	0.000
material status			-0.086***	-0.066***	-0.054***	-0.048***	-0.043***
Self-employed			-0.151***	-0.145***	-0.144***	-0.141***	-0.132***
Not working			0.105***	0.107***	0.105***	0.101***	0.096***
Retired			-0.002	-0.001	-0.008	-0.013	-0.016
Student			0.067**	0.065**	0.069**	0.077***	0.087***
POUM: better				0.035	0.067	0.063	0.048
POUM: worse				0.232***	0.205***	0.186***	0.18***
Gets better * mat. status				-0.026**	-0.031***	-0.031***	-0.027**
Gets worse * mat. status				-0.049***	-0.046***	-0.043***	-0.043***
Poor are lazy					-0.249***	-0.245***	-0.249***
Social injustice					0.191***	0.18***	0.149***
Part of social progress					-0.09***	-0.095***	-0.103***
Widespread perceived poverty						0.187***	0.154***
Income inequalities are too high							0.194***
Adjusted R2	0.073	0.091	0.108	0.111	0.137	0.142	0.150

N=24889. Source: Eurobarometer 72.1.

Table 7. Micro determinants of redistributive attitudes in 2014. Results for OLS regressions (dependent: RPI3)

	Basic model	Demography	Material self-interest	Expectations	Failure attribution	Social context	Inequality sensitivity
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
(Constant)	-0.192***	-0.126***	0.158***	0.143***	-0.049	-0.077**	-0.192***
Gender		-0.131***	-0.106***	-0.106***	-0.104***	-0.092***	-0.091***
Age 18_30		0.094***	0.052**	0.065***	0.092***	0.092***	0.092***
Age 31_40		0.011	0.000	0.009	0.033	0.032	0.031
Age 51_60		0.027	0.027	0.020	0.028	0.013	0.000
Age 61_70		-0.035	-0.057**	-0.066**	-0.069**	-0.071***	-0.078***
Age 71+		-0.125***	-0.15***	-0.161***	-0.141***	-0.135***	-0.139***
Education <15		0.132***	0.103***	0.100***	0.121***	0.107***	0.109***
Education 20+		-0.16***	-0.11***	-0.107***	-0.12***	-0.11***	-0.11***
Village		-0.025*	-0.023	-0.021	-0.016	-0.021	-0.024*
Large towns		0.026	0.029*	0.029*	0.024	0.013	0.012
Household size		0.012***	0.012***	0.012***	0.013***	0.011**	0.011**
material status			-0.087***	-0.082***	-0.067***	-0.064***	-0.057***
Self-employed			-0.102***	-0.096***	-0.083***	-0.08***	-0.067***
Not working			0.118***	0.121***	0.104***	0.095***	0.093***
Retired			-0.078***	-0.081***	-0.067**	-0.06**	-0.062**
Student			-0.051	-0.054*	-0.041	-0.026	-0.004
POUM: better				-0.12**	-0.088*	-0.094*	-0.099*
POUM: worse				0.205***	0.18***	0.14**	0.135**
Gets better * mat. status				0.012	0.006	0.006	0.007
Gets worse * mat. status				-0.023	-0.021	-0.018	-0.018
Poor are lazy					-0.15***	-0.147***	-0.15***
Social injustice					0.314***	0.286***	0.246***
Part of social progress					-0.049**	-0.053***	-0.061***
Widespread perceived poverty						0.245***	0.193***
Income inequalities are too							0.214***
Adjusted R2	0.0866	0.1029	0.1152	0.1184	0.1510	0.1611	0.1710

N= 23366. Source: Eurobarometer 81.5.

6. Summary

After an introductory analysis of longer term trends in inequality and in social attitudes, we turned our attention to most recent changes in popular attitudes towards institutions and policies. We had the expectation that the difficult times during and after the crisis would lead to a change in attitudes in the society. Our findings can be summarized as follows:

- Trust in the EU Parliament and in national political institutions declined significantly between 2008 and 2012 in most countries. The largest declines occurred in the countries most affected by the crisis, i.e. Cyprus, Spain, Greece (in 2008-2010) and Portugal. In contrast, changes in generalised trust ("trust in people") were much less pronounced.
- Attitudes towards migrants became less favourable on average during the economic recession of 2008-2010, but the trend was reversed in subsequent years.
- In the majority of countries, life satisfaction was slightly higher in 2012 than in 2008. Nevertheless, the opposite was the case in the most severely crisis-stricken countries (Cyprus, Spain and Ireland). Relatively large reductions are also observed in Greece and Croatia between 2008 and 2010.
- Of the macro-level variables examined, unemployment appeared to be most closely related to social attitudes. In particular, increases in unemployment seem to be related with lower levels of institutional trust, less favourable attitudes towards immigrants and lower life satisfaction. The multivariate regression analysis largely confirms this finding.
- There is not much evidence of significant relationships for the other indicators of labour market conditions and non-standard employment. In multivariate regression analysis, an exception to this is the temporary employment rate which is significantly related to less favourable attitudes towards immigrants and lower life satisfaction, a finding possibly stemming from the heightened employment insecurity caused by a higher prevalence of temporary contracts.
- Household income is positively related to changes in institutional and generalized trust, and life satisfaction. By contrast, a more dispersed income distribution is negatively related to satisfaction with life.
- Finally, life satisfaction appears to reflect changes in the macro-economic and macro-social environment more closely than other social attitudes' indicators. This is confirmed in both the bivariate and multivariate analyses. In particular, average life satisfaction increases with higher per capita income, while it decreases with higher unemployment, a higher temporary employment rate and a more dispersed distribution of income.
- The comparison of perceived poverty between 2010 and 2014 shows an increased awareness of the growth of poverty in various countries. The share of people saying that poverty is "very widespread" in their country has increased to a very large extent in Greece, Italy, Slovenia, Portugal, Spain and Cyprus, with some increase also experienced in Netherlands, Slovakia and Bulgaria.
- In over a dozen countries (and especially in Cyprus and Portugal) the share of people claiming that the poor are poor because they are lacking willpower and are perhaps idle has declined significantly, while the share of those attributing poverty to social injustice was on the rise in Cyprus, Portugal and Spain, among others.

It was also in the focus of this analysis to investigate how perceived policy performance (in addressing poverty and inequalities) is related to macroeconomic variables such as unemployment (and particularly youth unemployment), income inequality and poverty.

- We found that a larger increase in unemployment (in terms of the percentage point change between 2007 and 2013) is associated with a worse perceived

policy performance. The large variation in policy assessment in countries showing no or minimal increase in unemployment, on the other hand, suggests that the way governments alleviate poverty includes (at least in the public's perception) policies other than those related to reducing unemployment.

- The actual at risk of poverty rate (unlike the change of poverty rates from one year to the other is closely correlated with policy performance evaluations. The higher the poverty is, the worse the policy evaluations will be.
- The level of inequality (measured by Gini) seems to have only a slight negative correlation with perceived policy performance in 2009 already, but by 2013 even this slight correlation seemed to have disappeared.

The last question of this paper was to find out whether economic recession has increased the demand for redistribution in the different Member States; whether this varies between countries and if so why.

- What we found striking is the fact that for employment, education and for general social spending, the share of people supporting the "state option" has declined in most countries. The declining support for the state solutions led to an increase of the support towards market solutions in some (but not all) of the cases.
- The country level averages of the (composite) RPI (as a dependent variable for the present analysis) does have a significant cross country variance in both years. We found that the largest demand for (further) redistribution is measured in Greece and Cyprus in both years and the lowest level of the demand for redistribution is shown in the Netherlands in both years.
- The correlation between RPI and inequality in the lower segment of the distribution (P10/P50, the distance between the poor and the median) is higher than the correlation measured for the overall inequality.
- All in all, we could conclude that preference towards redistribution is more influenced by the lower part (below median) of the income distribution, than by the upper part (above the median).

In the last part of the paper we also analysed how far the attitude of people towards welfare is related to their socio-demographic characteristics and their expectations as regards their own economic prospects as well as those of the country in which they live. From the observation of the subsequent introduction of the various block of variables, we may conclude the following:

- For the demography variables we found that there are significant gender differences in redistributive attitudes. Also, age differences are prevalent, there have been shifts of redistributive attitudes – the young, in general became more favourable towards redistribution.
- By education attainment, higher educated are less in favour of redistribution, while for the lower educated the parameter estimates are positive (and significant for the primary educated).
- People with material resources (self-evaluated to be) at low levels have a significantly larger appetite for redistribution as compared to those in the middle and people towards the higher end have much lower support for redistributive arrangements. This is true in 2009 and in 2014 as well.
- The introduction of subjective expectations brings a slight decline in the parameter estimates of the material positions' effects (although this is less so in 2014 than it was measured in 2009) and show the expected signs: those expecting a worsening position will have a significant positive evaluation of redistribution.
- People believing that the poor get into poverty because of laziness have a smaller redistributive taste while those who think poverty is a consequence of injustice in the society have a larger redistributive preference index.

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Annex 1: Tables and charts

Table A1: Social Attitudes in the European Union (2008-2012)

Country	Trust in the EU parliament (0-10)	Trust in national political institutions (0-10)	Trust in people (0-10)	Attitudes towards immigrants (0-10)	Life satisfaction (0-10)
ESS Round 4 (2008)					
Belgium	5.1	4.2	5.1	4.9	7.3
Bulgaria	4.6	1.7	3.5	5.6	4.4
Cyprus	6.0	4.8	4.5	4.7	7.1
Czech Rep	3.9	3.0	4.8	4.5	6.7
Germany	4.3	3.9	4.9	5.2	7.0
Denmark	5.1	5.9	6.9	5.7	8.5
Estonia	5.0	3.5	5.4	4.4	6.2
Spain	5.0	3.9	4.9	4.9	7.3
Finland	5.2	5.3	6.5	5.5	7.9
France	4.6	3.8	4.5	4.8	6.4
Great Britain	3.6	3.8	5.3	4.6	7.1
Greece	4.4	2.9	3.9	3.2	6.1
Croatia	3.6	2.5	4.3	4.8	6.7
Hungary	4.0	2.2	4.1	3.8	5.3
Ireland	4.7	3.4	5.5	5.5	7.1
Netherlands	5.1	5.3	6.0	5.2	7.7
Poland	4.5	2.5	4.1	5.9	6.9
Portugal	4.3	2.8	3.7	4.3	5.7
Sweden	4.7	5.1	6.4	6.2	7.9
Slovenia	4.8	3.8	4.3	4.5	6.9
Slovakia	5.3	3.8	4.1	4.6	6.4
ESS Round 5 (2010)					
Belgium	5.0	4.1	5.0	4.7	7.5
Bulgaria	4.8	2.1	3.5	5.4	4.9
Cyprus	5.0	3.9	3.8	3.8	7.1
Czech Rep	4.1	2.9	4.6	4.1	6.4
Germany	4.0	3.7	4.7	5.1	7.3
Denmark	5.0	5.4	6.8	5.8	8.4
Estonia	5.2	3.8	5.7	4.4	6.5
Spain	4.5	3.3	5.1	5.2	7.3
Finland	5.1	4.8	6.5	5.4	7.9
France	4.3	3.5	4.3	4.6	6.3
Great Britain	3.4	3.7	5.4	4.6	7.2
Greece	2.6	1.6	4.0	2.8	5.7
Croatia	3.3	1.9	4.6	4.9	6.3
Hungary	4.8	3.5	4.5	4.2	5.8
Ireland	4.1	3.3	5.3	5.1	6.6
Netherlands	4.9	5.3	6.0	5.2	7.8
Poland	4.7	2.9	4.4	5.9	7.0
Portugal	3.7	2.3	3.7	4.1	5.9
Sweden	5.0	5.5	6.3	6.5	7.9

Slovenia	3.7	2.5	3.9	4.4	7.0
Slovakia	4.4	3.0	4.0	4.5	6.4
ESS Round 6 (2012)					
Belgium	5.1	4.5	5.1	4.7	7.4
Bulgaria	4.3	1.9	3.4	5.3	4.4
Cyprus	4.3	2.8	3.6	3.2	6.9
Czech Rep	3.9	2.8	4.5	4.3	6.7
Germany	4.4	4.1	5.0	5.5	7.6
Denmark	5.2	5.6	7.0	6.1	8.6
Estonia	4.7	3.5	5.5	4.8	6.2
Spain	3.9	2.4	5.1	5.3	6.9
Finland	5.0	5.2	6.6	5.6	8.1
France	…	…	…	…	…
Great Britain	3.4	3.9	5.4	4.7	7.4
Greece	…	…	…	…	…
Croatia	…	…	…	…	…
Hungary	4.2	3.5	4.8	4.4	5.6
Ireland	4.4	3.2	5.2	5.4	6.8
Netherlands	4.8	5.2	6.0	5.4	7.9
Poland	4.2	2.5	4.1	6.0	7.1
Portugal	3.2	2.0	3.6	3.9	6.0
Sweden	4.7	5.2	6.0	6.4	7.9
Slovenia	3.8	2.5	4.6	4.9	7.0
Slovakia	3.7	2.9	3.9	4.1	6.8

Source: European Social Survey (Cumulative Edition 1.1 and ESS6 Edition 2.0) and authors' calculations.
Notes: Details for the construction of all measures can be found in the text. All data are weighted with design weights for each year and country

Table A2: Mean Social Climate index scores, 2009-2014

	2009	2010	2011	2012	2013	2014	Difference (2014-2009)
AT	1.6	2.3	2.7	2.5	2.1	1.8	0.2
BE	1	0.8	1.2	1.5	1.1	0.7	-0.3
BG	-3.6	-3.1	-3	-2.9	-3.3	-3.6	0.0
CY	-0.7	-0.8	-1.7	-2.9	-3.4	-3.4	-2.7
CZ	-0.3	-0.1	-0.9	-0.6	-0.7	-0.9	-0.6
DE	0.3	0.7	1.4	2	1.9	1.5	1.2
DK	2.8	2.4	2.1	2.8	2.8	3.0	0.2
EE	-0.4	0	-0.3	-0.4	-0.5	0.0	0.4
EL	-3.8	-4.3	-4.6	-5.8	-5.4	-5.3	-1.5
ES	-1	-0.9	-1.6	-2.1	-2.7	-2.2	-1.2
FI	1.4	1.4	1.1	1.5	1.5	1.3	-0.1
FR	-0.8	-0.8	-1.1	-0.4	-0.9	-0.9	-0.1
HR	NA	NA	NA	NA	-3.5	-3.2	NA
HU	-3.7	-3.4	-3.6	-3.8	-2.4	-2.3	1.4
IE	-1.8	-1.4	-1.6	-1.5	-1.3	-0.9	0.9
IT	-1.9	-1.8	-1.1	-3.1	-2.9	-3.0	-1.1
LT	-2.5	-3.1	-2.9	-2.4	-1.6	-1.5	1.0
LU	2.3	2.5	2.8	2.7	2.6	2.4	0.1
LV	-2.2	-2.3	-2.7	-1.9	-1.4	-1.8	0.4
MT	-0.2	0.2	-0.3	0.1	1	2.7	2.9
NL	2.6	2.4	2.5	2.8	1.9	2.2	-0.4
PL	-1.3	-1.4	-1.7	-2.6	-2	-1.9	-0.6
PT	-2.3	-2.8	-2.7	-3.2	-3.4	-2.6	-0.3
RO	-2.4	-4.5	-4.4	-3.8	-4	-3.4	-1.0
SE	1.8	2.3	2.2	2.6	2.3	1.9	0.1
SI	-0.5	-0.9	-1.3	-1.4	-2	-1.8	-1.3
SK	-1.6	-0.8	-1.7	-1.8	-2	-2.1	-0.5
UK	0	0	-0.1	0.1	0.4	0.2	0.2

Source: European Commission. 2013. Social Climate. Special Eurobarometer 408. p.10. Cf. Table 1. Values for 2014 are own-calculation on Eurobarometer 81.5 data. Numbers are mean scores of responses to fifteen question about personal and general situation and perceived social protection and inclusion policy factors. SC-index scores has a theoretical range of -10 to +10.

Table A3 Annual unemployment rate of 15-74 years old population, 2007-2013

	2007	2008	2009	2010	2011	2012	2013	Percent point change between 2007 and 2013
AT	4.4	3.8	4.8	4.4	4.2	4.3	4.9	0.5
BE	7.5	7.0	7.9	8.3	7.2	7.6	8.4	0.9
BG	6.9	5.6	6.8	10.3	11.3	12.3	13.0	6.1
CY	3.9	3.7	5.4	6.3	7.9	11.9	15.9	12.0
CZ	5.3	4.4	6.7	7.3	6.7	7.0	7.0	1.7
DE	8.7	7.5	7.8	7.1	5.9	5.5	5.3	-3.4
DK	3.8	3.5	6.0	7.5	7.6	7.5	7.0	3.2
EE	4.6	5.5	13.5	16.7	12.3	10.0	8.6	4.0
EL	8.3	7.7	9.5	12.6	17.7	24.3	27.3	19.0
ES	8.2	11.3	17.9	19.9	21.4	24.8	26.1	17.9
EU27	7.2	7.0	9.0	9.6	9.6	10.4	10.8	3.6
FI	6.9	6.4	8.2	8.4	7.8	7.7	8.2	1.3
FR	8.0	7.5	9.1	9.3	9.2	9.8	10.3	2.3
HR	9.6	8.4	9.1	11.8	13.5	15.9	17.2	7.6
HU	7.4	7.8	10.0	11.2	10.9	10.9	10.2	2.8
IE	4.7	6.4	12.0	13.9	14.7	14.7	13.1	8.4
IT	6.1	6.7	7.8	8.4	8.4	10.7	12.2	6.1
LT	4.3	5.8	13.8	17.8	15.4	13.4	11.8	7.5
LU	4.2	4.9	5.1	4.6	4.8	5.1	5.8	1.6
LV	6.1	7.7	17.5	19.5	16.2	15.0	11.9	5.8
MT	6.5	6.0	6.9	6.9	6.5	6.4	6.5	0.0
NL	3.6	3.1	3.7	4.5	4.4	5.3	6.7	3.1
PL	9.6	7.1	8.1	9.7	9.7	10.1	10.3	0.7
PT	8.9	8.5	10.6	12.0	12.9	15.9	16.5	7.6
RO	6.4	5.8	6.9	7.3	7.4	7.0	7.3	0.9
SE	6.1	6.2	8.3	8.6	7.8	8.0	8.0	1.9
SI	4.9	4.4	5.9	7.3	8.2	8.9	10.1	5.2
SK	11.2	9.6	12.1	14.5	13.7	14.0	14.2	3.0
UK	5.3	5.6	7.6	7.8	8.0	7.9	7.5	2.2

Source: Eurostat une_rt_a table

Table A4 Change of poverty rate between 2007 and 2012

	2007	2008	2009	2010	2011	2012	Change of poverty rate between 2007 and 2012 (2012 value as percent of 2007 value)
AT	12.0	12.4	12.0	12.1	12.6	14.4	120.0
BE	15.2	14.7	14.6	14.6	15.3	15.0	98.7
BG	22.0	21.4	21.8	20.7	22.2	21.2	96.4
CY	15.5	15.9	15.8	15.6	14.8	14.7	94.8
CZ	9.6	9.0	8.6	9.0	9.8	9.6	100.0
DE	15.2	15.2	15.5	15.6	15.8	16.1	105.9
DK	11.7	11.8	13.1	13.3	13.0	13.1	112.0
EE	19.4	19.5	19.7	15.8	17.5	17.5	90.2
EL	20.3	20.1	19.7	20.1	21.4	23.1	113.8
ES	19.7	20.8	20.1	21.4	22.2	22.2	112.7
EU27	16.5	16.5	16.4	16.4	16.9	16.9	102.4
FI	13.0	13.6	13.8	13.1	13.7	13.2	101.5
FR	13.1	12.5	12.9	13.3	14.0	14.1	107.6
HR	18.0	17.3	17.9	20.5	21.3	20.5	113.9
HU	12.3	12.4	12.4	12.3	13.8	14.0	113.8
IE	17.2	15.5	15.0	15.2	15.2	NA	88.4
IT	19.8	18.7	18.4	18.2	19.6	19.4	98.0
LT	19.1	20.0	20.3	20.5	19.2	18.6	97.4
LU	13.5	13.4	14.9	14.5	13.6	15.1	111.9
LV	21.2	25.9	26.4	20.9	19.0	19.2	90.6
MT	15.1	15.3	14.9	15.5	15.6	15.1	100.0
NL	10.2	10.5	11.1	10.3	11.0	10.1	99.0
PL	17.3	16.9	17.1	17.6	17.7	17.1	98.8
PT	18.1	18.5	17.9	17.9	18.0	17.9	98.9
RO	24.8	23.4	22.4	21.1	22.2	22.6	91.1
SE	10.5	12.2	13.3	12.9	14.0	14.1	134.3
SI	11.5	12.3	11.3	12.7	13.6	13.5	117.4
SK	10.6	10.9	11.0	12.0	13.0	13.2	124.5
UK	18.6	18.7	17.3	17.1	16.2	16.2	87.1

Source: Eurostat ilc_li02 table

Table A5 Change of inequality between 2007 and 2012

	2007	2008	2009	2010	2011	2012	Change of inequality (2012 Gini value as percent of 2007 Gini value)
AT	26.2	26.2	25.7	26.1	26.3	27.6	105.3
BE	26.3	27.5	26.4	26.6	26.3	26.6	101.1
BG	35.3	35.9	33.4	33.2	35.0	33.6	95.2
CY	29.8	29.0	29.5	30.1	29.2	31.0	104.0
CZ	25.3	24.7	25.1	24.9	25.2	24.9	98.4
DE	30.4	30.2	29.1	29.3	29.0	28.3	93.1
DK	25.2	25.1	26.9	26.9	27.8	28.1	111.5
EE	33.4	30.9	31.4	31.3	31.9	32.5	97.3
EL	34.3	33.4	33.1	32.9	33.5	34.3	100.0
ES	31.9	31.9	33.0	34.4	34.5	35.0	109.7
FI	26.2	26.3	25.9	25.4	25.8	25.9	98.9
FR	26.6	29.8	29.9	29.8	30.8	30.5	114.7
HR	29.0	28.0	27.0	31.4	31.0	30.5	105.2
HU	25.6	25.2	24.7	24.1	26.8	26.9	105.1
IE	31.3	29.9	28.8	30.7	29.8	NA	95.2
IT	32.2	31.0	31.5	31.2	31.9	31.9	99.1
LT	33.8	34.0	35.9	37.0	33.0	32.0	94.7
LU	27.4	27.7	29.2	27.9	27.2	28.0	102.2
LV	35.4	37.5	37.5	35.9	35.1	35.7	100.8
MT	26.3	28.1	27.4	28.6	27.2	27.1	103.0
NL	27.6	27.6	27.2	25.5	25.8	25.4	92.0
PL	32.2	32.0	31.4	31.1	31.1	30.9	96.0
PT	36.8	35.8	35.4	33.7	34.2	34.5	93.8
RO	37.8	36.0	34.9	33.3	33.2	33.2	87.8
SE	23.4	24.0	24.8	24.1	24.4	24.8	106.0
SI	23.2	23.4	22.7	23.8	23.8	23.7	102.2
SK	24.5	23.7	24.8	25.9	25.7	25.3	103.3
UK	32.6	33.9	32.4	32.9	33.0	32.8	100.6

Source: Eurostat ilc_di12 table

Table A6 Dependent variable (main statistics of the principal component "redistributive preference")

	Correlation with the redistribution preference principal component
(“providing jobs for the citizens”)	0.706
(“education finance”)	0.558
“(everyone is provided for”)	0.744
Eigenvalue	1.362
Cumulative Sums of Squared Loadings	45.406

Source: Eurobarometer 81.5 (2014)

Annex 2 Data sources used in this research note

EB.67.1 Poverty and Exclusion	2007	Februar-March
Flash Eurobarometer 276, Monitoring the social impact of the crisis, wave 1.	2009	July
EB. 72.1. Poverty and Social Exclusion (Special Eurobarometer 321)	2009	August-September
Flash Eurobarometer 286, Monitoring the social impact of the crisis, wave 2.	2009	November-December
Flash Eurobarometer 288, Monitoring the social impact of the crisis, wave 3.	2010	March
Flash Eurobarometer 289, Monitoring the social impact of the crisis, wave 4.	2010	May
Flash Eurobarometer 311, Monitoring the social impact of the crisis, wave 5.	2010	October
EB. 74.1. Poverty and Social Exclusion (Special Eurobarometer 355)	2010	August-September
EB. 71.2. Social climate (Special Eurobarometer 315)	2009	May-June
EB. 73.5. Social climate (Special Eurobarometer 349)	2010	June
EB. 75.4. Social climate (Special Eurobarometer 370)	2011	June
EB. 77.4. Social climate (Special Eurobarometer 391)	2012	June
EB. 79.4. Social climate (Special Eurobarometer 408)	2013	June
EB. 81.5. Social climate (Special Eurobarometer 418) on the field	2014	June
European Social Survey (Cumulative Edition 1.1)	2008, 2010	
European Social Survey (ESS6 Edition 2.0)	2012	