



Working Paper Series

**Preferences for redistribution after  
the economic crisis**

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**ECINEQ WP 2014 - 334**

## Preferences for redistribution after the economic crisis

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### Abstract

This paper analyses the effects of the recent Economic Crisis on individual preferences for redistribution in 23 European countries. After implementing a decomposition of the variation in these preferences, it is showed that the crisis was highly significant in increasing support for redistribution. It is found that more unemployment and, in particular, youth unemployment has considerably raised the citizens' demand for redistribution.

**Keywords:** Redistribution, income inequality, social preferences, economic crisis.

**JEL Classification:** D31, D63, D72, H20.

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## 1. Introduction

The relevance of studying preferences for redistribution is rooted in the voting model by Meltzer and Richard (1981) which shows that the median voter is decisive in regard to pushing for redistribution when income inequality increases. More sophisticated approaches introduce other important variables such as upward mobility expectations of low-income individuals (Piketty, 1995; Benabou and Ok, 2001), beliefs on individual effort and luck as being responsible for income formation (Alesina and Angeletos, 2005) and informational limitations on inequality levels and the influence of reference groups (Kusiemko et al., 2013; Cruces et al., 2013 and Shokkaert and Truyts, 2014). All these efforts advance the original median voter model, yet at the same time they offer conflicting results. A number of studies have empirically assessed the determinants of preferences for redistribution relying mostly on surveys including questions about perceptions and values on redistribution and inequality. Some examples are Georgiadis and Manning (2012); Pittau et al. (2013); Kerr (2014), Alesina and Giuliano (2011); Alesina and La Ferrara (2005); Luttmer and Singhal (2011); Guillaud (2013) and Corneo and Grüner (2002). Although all these works, and related ones, are important in the literature of preferences for redistribution, they do not address the effects of a major economic event, namely, the 2008/09 financial crisis. An exception is Margalit (2013) who analyses the effect of the Great Recession in the American preferences for redistribution.

The aim of this paper is to study the effects of the recent economic crisis on preferences for redistribution in a broader set of countries, particularly in Europe. For this purpose, we use two waves of the European Social Survey (ESS) carried out in 2008 and 2010, which comprises 23 countries and 69,621 individuals with non-missing data. The support for redistribution increased in a total of 19 countries during the analysed period. A Oaxaca decomposition allows us to further explore this variation. Interestingly, our baseline

model –which includes most of the usual covariates considered in the empirical literature– reports that the differences in endowments between individuals can only explain about 10% of the rise in redistributive preferences. But, once a variable closely related with the economic crisis (monthly unemployment rate) is introduced, the model is able to explain 55% of the rise of preferences for redistribution. This suggests that the economic crisis has effects not only on economic indicators but also on social preferences, even after control by variables related to economic self-interest and many other covariates. In addition, a model including youth unemployment rates can further explain about 70% of the variation in preferences for redistribution. It seems that youth unemployment captures more fully, and sadly, the drastic effects of the crisis.

The paper is organized as follows. Section two presents the data. The third section discusses the estimation and decomposition methods. The fourth section reports the results. Finally, section 5 offers some conclusions.

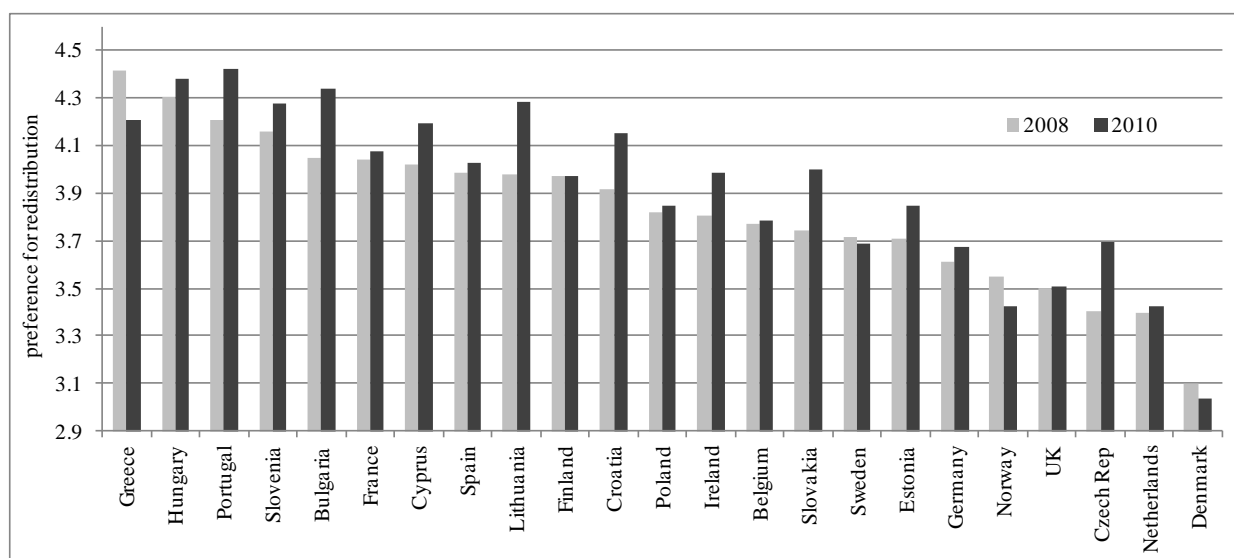
## **2. Data**

We use the waves of 2008 and 2010 of the European Social Survey (ESS). The aim of the ESS is to measure attitudes, beliefs, values and behaviour patterns of individuals in Europe. The key question measuring individual preferences for redistribution is “To what extent you agree or disagree with the statement: the government should take measures to reduce differences in income levels”. The individual must choose one of five alternatives, which we rescale in the following way: strongly agree (5); agree (4); neither agree nor disagree (3); disagree (2) and strongly disagree (1). Therefore, the higher this number, the more in favour for redistribution. Gini indexes are selected from the Standardized World Income Inequality Database (SWIID version 4.0, September 2013) (see Solt, 2009 for details) because this data –although not without its problems– provides the broadest coverage across countries and over time. The macroeconomic variable related to the economic crisis is the

monthly unemployment rate from Eurostat. The sample is composed of 23 countries observed in 2008 and 2010, and includes 69,621 observations with non-missing data.

The simple average of the country means of preferences for redistribution are 3.83 and 3.92 (in a scale from 1 to 5) in 2008 and 2010, respectively; though there is a large disparity among countries (see Figure 1). For example, in 2008 the countries with the highest and lowest scores are Greece with 4.42, and Denmark with 3.10. Between both years, each country experienced an increase in the average score of preferences for redistribution except but Greece, Denmark, Norway and Sweden. Six countries report an increase larger than 5% (Portugal, Bulgaria, Lithuania, Croatia, Slovakia and Czech Republic). Moreover, a simple test of unconditional means reveals that the variation in preferences for redistribution is statistically significant at 95% of confidence in 15 out of 23 countries between 2008 and 2010. The change is not significant in Austria, Denmark, Finland, France, Netherlands, Poland, Sweden and UK.

**Figure 1: Preferences for redistribution by country, 2008 and 2010**

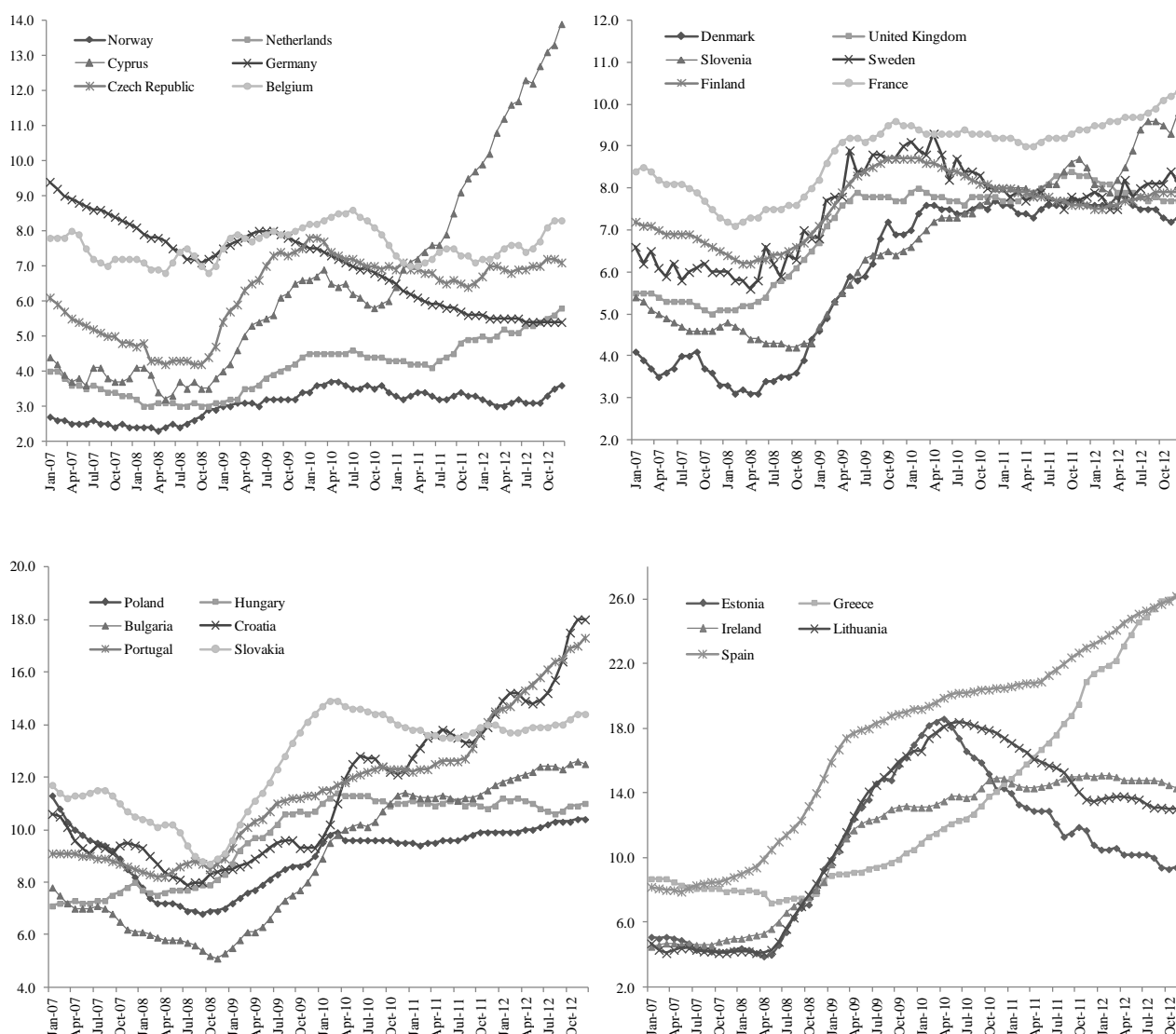


Source: ESS, author's elaboration

The choice of monthly unemployment rates as the proxy for the economic crisis is based, firstly, on its ease to be perceived by the individuals through the media, public debates

and labour market experiences; and secondly, we want to take advantage of different interview dates within and between countries in order to capture the sharp movements, caused by the crisis, in the unemployment rates. Figure 2 shows that, in general, unemployment has rapidly increased from the end of 2008 or beginning of 2009 in the majority of European countries, although the levels of unemployment rates show a large variation among countries. The countries plotted in the last panel of Figure 2 report the highest unemployment rates experienced during 2010, which are precisely the economies more severely affected by the economic crisis.

**Figure 2: Unemployment rates in European countries (2007-2012)**



Source: Eurostat. Author's elaboration.

### 3. Methods

We first explore the determinants of preferences for redistribution with an OLS specification<sup>1</sup> where the dependent variable, as previously described, is the score of preference for redistribution that ranges from low preference (1) to high preference (5). The estimations use the following specification:

$$y_{i,c,t} = \theta_c + \delta_t + \gamma Z_{i,c,t} + \beta gini_{c,t-1} + \rho unemp_{c,t,\tau} + \varepsilon_{i,c,t} \quad (1)$$

The subscripts  $i$ ,  $c$  and  $t$  stand for individual, country and time, respectively. The model includes  $\theta_c$  and  $\delta_t$  to control for country and year fixed effects. In particular,  $\delta_t$  refers to the effect of year 2010. The inclusion of these variables is standard in the measure of preferences for redistribution with pooled datasets (Kerr, 2014; Luttmer and Singhal, 2011; Alesina and Giuliano, 2011; Alesina and La Ferrara, 2005). The value of the Gini index is lagged one year and varies across country and year. The country unemployment rate correspond to the month  $\tau$  in which the individual was surveyed.  $\varepsilon_{i,c,t}$  is the error term. Vector  $Z_{i,c,t}$  includes individual controls regularly employed in the empirical literature of redistributive preferences. Apart from demographic variables, this vector includes a dummy variable that indicates if the individual is part of a minority ethnic group in the country, self-declared religiosity in a scale from 1 (not at all) to 10 (very religious), a dummy for union affiliation, and self-declared political position from 0 (left) to 10 (right). The ESS does not have a uniform question on personal income, but we include a proxy that is asked in each

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<sup>1</sup> In the empirical literature of preferences for redistribution it is a common practice to use the multi-scale variable about preferences for redistribution and estimate with OLS. Examples of this are Georgiadis and Manning (2012), Kerr (2011), Alesina and Giuliano (2011) and Luttmer and Singhal (2011). All of them argue that the use of alternative modelling approaches such as the ordered logit model do not change the results.

wave<sup>2</sup>. This is “which of the descriptions on this card comes closest to how you feel about your household’s income nowadays?” with four possible scales: living comfortably on present income (1), coping on present income (2), difficult on present income (3) and very difficult on present income (4). Table 1 reports the descriptive statistics.

**Table 1: Descriptive statistics**

| Variable                    | 2008  |       | 2010  |       | Total |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|
|                             | mean  | sd    | mean  | sd    | mean  | sd    |
| in favour of redistribution | 3.85  | 1.04  | 3.94  | 1.04  | 3.89  | 1.04  |
| male                        | 0.47  | 0.50  | 0.46  | 0.50  | 0.47  | 0.50  |
| living with partner         | 0.66  | 0.48  | 0.64  | 0.48  | 0.65  | 0.48  |
| age                         | 47.49 | 17.18 | 48.01 | 17.48 | 47.75 | 17.34 |
| isced: 1                    | 0.13  | 0.33  | 0.13  | 0.33  | 0.13  | 0.33  |
| isced: 2                    | 0.17  | 0.37  | 0.15  | 0.36  | 0.16  | 0.36  |
| isced: 3                    | 0.41  | 0.49  | 0.41  | 0.49  | 0.41  | 0.49  |
| isced: 4                    | 0.03  | 0.16  | 0.05  | 0.22  | 0.04  | 0.19  |
| isced: 5                    | 0.28  | 0.45  | 0.26  | 0.44  | 0.27  | 0.44  |
| isced: other                | 0.00  | 0.02  | 0.00  | 0.05  | 0.00  | 0.04  |
| ethnic                      | 0.06  | 0.23  | 0.06  | 0.23  | 0.06  | 0.23  |
| religious                   | 4.75  | 2.96  | 4.68  | 2.97  | 4.72  | 2.97  |
| income: living comfortably  | 0.26  | 0.44  | 0.25  | 0.43  | 0.25  | 0.43  |
| income: coping on           | 0.47  | 0.50  | 0.45  | 0.50  | 0.46  | 0.50  |
| income: difficult on        | 0.20  | 0.40  | 0.21  | 0.41  | 0.20  | 0.40  |
| income: very difficult on   | 0.07  | 0.26  | 0.10  | 0.30  | 0.09  | 0.28  |
| union                       | 0.43  | 0.49  | 0.41  | 0.49  | 0.42  | 0.49  |
| retired                     | 0.23  | 0.42  | 0.25  | 0.43  | 0.24  | 0.43  |
| unemployed                  | 0.07  | 0.25  | 0.09  | 0.28  | 0.08  | 0.27  |
| lef-right political scale   | 5.10  | 2.18  | 5.17  | 2.17  | 5.14  | 2.18  |
| gini net incomes            | 28.85 | 3.72  | 29.13 | 3.74  | 28.99 | 3.73  |
| gini market incomes         | 41.89 | 5.89  | 42.01 | 5.46  | 41.95 | 5.68  |
| monthly unemployment rate   | 6.86  | 2.44  | 10.31 | 4.02  | 8.60  | 3.75  |
| N                           | 34641 |       | 34980 |       | 69621 |       |

One way to explore changes over time with the available data (cross-sections before and after the crisis in each country) is by implementing a decomposition approach. Although the aim is different in this paper, Georgiadis and Manning (2012) have also performed a decomposition technique with cross-sections of different years in the UK to study changes in inequality and support for redistribution. We will carry-out a Oaxaca decomposition (Oaxaca, 1973). The idea is that a regression similar to equation 1 is estimated for each year. We can then use this to disentangle the effects in the variation of support for redistribution due to differences in the means of the covariates and differences in the estimated slopes. Provided

<sup>2</sup> The ESS includes a question that indicates which range of total household income the individual belongs to, but a high percentage of individuals do not answer this question in our sample (23%).



that  $\bar{y}_{08} = \hat{\beta}_{08}\bar{x}_{08}$  and  $\bar{y}_{10} = \hat{\beta}_{10}\bar{x}_{10}$ , where  $\hat{\beta}_t$  and  $\bar{x}_t$  refer to the set of estimated coefficients and the average values of the included covariates in each year, it is possible to obtain the following expression:

$$\bar{y}_{10} - \bar{y}_{08} = \hat{\beta}_{10}(\bar{x}_{10} - \bar{x}_{08}) + (\hat{\beta}_{10} - \hat{\beta}_{08})\bar{x}_{08} \quad (2)$$

Equation 2 indicates that the changes experienced in preferences for redistribution can be decomposed in a first part due to differences in characteristics and in a second part due to differences in coefficients. Generally, the first part is regarded as the explained part due to differences in the predictors, while the second is the unexplained part. This latter component is commonly attributed to discrimination in labour market studies, but also includes possible effects of unobserved variables. Although the choice of the reference period (year 2008 or 2010) is an important issue with expression 2, the results should be very similar. Instead, we will implement a decomposition using a pooled model as the reference as advised in Jann (2008).

#### 4. Results

Table 2 reports the estimation results for equation 1. The first column considers the Gini coefficient computed with income after taxes and transfers (*Gini net*), while column 2 includes the Gini computed with pre-tax and pre-transfers income (*Gini market*). Then, columns 3 and 4 add the country unemployment rate corresponding to the month the individual was surveyed.

**Table 2: OLS estimates for preferences for redistribution**

| Variables                        | (1)                 | (2)                 | (3)                 | (4)                 |
|----------------------------------|---------------------|---------------------|---------------------|---------------------|
| male                             | -0.1076*** (0.0081) | -0.1076*** (0.0081) | -0.1072*** (0.0081) | -0.1073*** (0.0081) |
| living with partner              | -0.0217** (0.0088)  | -0.0216** (0.0088)  | -0.0213** (0.0088)  | -0.0212** (0.0088)  |
| age                              | 0.0069*** (0.0015)  | 0.0069*** (0.0015)  | 0.0069*** (0.0015)  | 0.0069*** (0.0015)  |
| age sq /100                      | -0.0041*** (0.0016) | -0.0041*** (0.0016) | -0.0041*** (0.0016) | -0.0042*** (0.0016) |
| isced: 2                         | 0.0566*** (0.0156)  | 0.0568*** (0.0156)  | 0.0567*** (0.0156)  | 0.0569*** (0.0156)  |
| isced: 3                         | 0.0343** (0.0149)   | 0.0346** (0.0149)   | 0.0336** (0.0149)   | 0.0339** (0.0149)   |
| isced: 4                         | -0.0077 (0.0243)    | -0.0100 (0.0243)    | -0.0106 (0.0243)    | -0.0123 (0.0243)    |
| isced: 5                         | -0.1893*** (0.0158) | -0.1891*** (0.0158) | -0.1896*** (0.0158) | -0.1894*** (0.0158) |
| isced: other                     | -0.1276 (0.1238)    | -0.1265 (0.1239)    | -0.1237 (0.1240)    | -0.1231 (0.1241)    |
| ethnic                           | 0.0522*** (0.0193)  | 0.0519*** (0.0193)  | 0.0526*** (0.0193)  | 0.0523*** (0.0193)  |
| religious                        | 0.0059*** (0.0015)  | 0.0059*** (0.0015)  | 0.0059*** (0.0015)  | 0.0059*** (0.0015)  |
| income nowadays: living comfort. | -0.4537*** (0.0186) | -0.4531*** (0.0186) | -0.4516*** (0.0186) | -0.4512*** (0.0186) |
| income nowadays: coping on       | -0.2512*** (0.0162) | -0.2506*** (0.0162) | -0.2491*** (0.0162) | -0.2487*** (0.0162) |
| income nowadays: difficult on    | -0.1009*** (0.0165) | -0.1004*** (0.0165) | -0.0987*** (0.0165) | -0.0984*** (0.0165) |
| union                            | 0.0988*** (0.0095)  | 0.0989*** (0.0095)  | 0.0988*** (0.0095)  | 0.0989*** (0.0095)  |
| retired                          | 0.0614*** (0.0143)  | 0.0613*** (0.0143)  | 0.0617*** (0.0143)  | 0.0617*** (0.0143)  |
| unemployed                       | 0.0566*** (0.0159)  | 0.0566*** (0.0159)  | 0.0562*** (0.0159)  | 0.0562*** (0.0159)  |
| left-right political scale       | -0.0829*** (0.0020) | -0.0829*** (0.0020) | -0.0829*** (0.0020) | -0.0829*** (0.0020) |
| year2010                         | 0.0729*** (0.0082)  | 0.0700*** (0.0081)  | 0.0369*** (0.0122)  | 0.0365*** (0.0122)  |
| gini net                         | 0.0082 (0.0081)     |                     | 0.0060 (0.0081)     |                     |
| gini market                      |                     | 0.0164*** (0.0056)  |                     | 0.0139** (0.0056)   |
| monthly unemployment rate        |                     |                     | 0.0109*** (0.0027)  | 0.0102*** (0.0027)  |
| constant                         | 4.049*** (0.2349)   | 3.597*** (0.2384)   | 4.036*** (0.2349)   | 3.631*** (0.2383)   |
| Observations                     | 69621               | 69621               | 69621               | 69621               |
| Adjusted R2                      | 0.167               | 0.167               | 0.167               | 0.167               |

\*\*\*p<0.01, \*\*p<0.05, \*p<0.1. Robust standard errors are in parentheses. The dependent variable indicates more support for redistribution (from 1 to 5). Each regression includes country fixed effects. The reference variable for income is "income nowadays: very difficult on"; and for education is "isced: 1".

The regression results are in line with what is commonly found in the empirical literature. Income inequality (measured with market incomes) is positively associated with the demand for redistribution; leftists, poorer, unemployed, retired and union members are more in favour of redistribution. The same applies for religious individuals and members of a minority ethnic group. Interestingly, the dummy variable for year 2010 is positive and significant in all models. Given that the economic crisis is the major event that occurred between 2008 and 2010, it can be hypothesized that, at least partially, this is what the dummy year is capturing. The addition of the monthly unemployment rate is aimed at more precisely capturing the effects of the crisis, and indeed, this is what we can imply from the regression results. Unemployment is statistically significant and positively associated with preferences for redistribution, in addition a reduction in the size of the year dummy coefficient is also observed. The year variable is still significant after the introduction of unemployment, which

can indicate that some other aspects related to the economic crisis cannot be entirely captured with unemployment rates.

Table 3 reports the decomposition of the variation in the support for redistribution between 2008 and 2010. A model that includes the Gini computed with net incomes can explain only 10% of the variation in preferences for redistribution, while the one that includes the Gini computed with market incomes explains 13%. These results indicate that changes in individual characteristics and overall income inequality are not sufficient to explain the shift in the redistributive preferences between both periods. In other words, there are other effects that are being neglected by the baseline models. Remarkably, once we add the monthly unemployment rate to the set of covariates, the model is able to explain 55% of the variation in the preferences. This result suggests that the economic crisis has played an important role not only in obvious economic indicators, but also in affecting social preferences. A final model includes the youth unemployment rate instead of the total unemployment rate, and is able to explain about 70% of the variation in preferences for redistribution. Although not reported here, youth unemployment have sharply increased during the crisis, reaching rates larger than 25% in 2010 in eight countries of our country sample. This indicator has more than doubled between 2008 and 2010 in the Baltic countries, Spain and Ireland. It seems that youth unemployment captures more fully, and sadly, the drastic effects of the crisis.

As a robust check, we implement a decomposition with a dependent variable that takes value 1 if the individual strongly agrees with the statement “the government should take measures to reduce differences in income levels”, and 0 otherwise. The baseline model only explains 14%-16% of the variation in preferences for redistribution, but the inclusion of the unemployment rate can explain 59%. The use of youth unemployment rates further increases this figure to 62%. So, these results are very similar to our main specification.

**Table 3: Oaxaca decomposition of changes in preferences for redistribution 2010/2008**

|  | coeff | s.e.  |
|--|-------|-------|
| Prediction 2010  | 3.893 | 0.006 |
| Prediction 2008  | 3.812 | 0.006 |
| Difference   | 0.081 | 0.009 |
| <i>Model with gini net</i>                             |       |       |
| Explained  | 0.008 | 0.004 |
| Unexplained  | 0.073 | 0.008 |
| <i>Model with gini market</i>                          |       |       |
| Explained  | 0.011 | 0.004 |
| Unexplained  | 0.070 | 0.008 |
| <i>Model with gini market &amp; unemployment</i>       |       |       |
| Explained  | 0.044 | 0.010 |
| Unexplained  | 0.037 | 0.012 |
| <i>Model with gini market &amp; youth unemployment</i> |       |       |
| Explained  | 0.057 | 0.010 |
| Unexplained  | 0.024 | 0.012 |

## 5. Concluding remarks

This paper has shown that the economic crisis has substantially influenced the support for redistribution in a number of European countries. The evidence suggests that more unemployment and, in particular, youth unemployment has increased the citizens' demand for redistribution. In a time of economic turmoil governments will find it difficult to satisfy such demands given the declines in production and tax revenues on the one hand, and increasing fiscal debt on the other hand. This in turn, will create more tensions and will further demoralize individuals since they count on more redistribution for economic relief.

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