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Social attitudes and regional inequalities

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TITLE:

Social attitudes and regional inequalities

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1. ABSTRACT

The global economic crisis has had a major impact on the economies of EU Member States, among other things, public sector budget deficits and public debt levels have risen dramatically. This has been reflected also on the budgets of the European Union (EU) that had become tighter and raise the questions about the effectiveness of the EU's expenditure, especially the most important parts such as Cohesion policy.

The aim of this paper is to examine does the presence of social attitudes may influence the effectiveness of EU budget expenditure measured by the level of regional inequalities. The motivation is in the fact that individuals choose actions according to social attitudes, so it seems appropriate to test does the social attitudes, defined as our views of the others as a collective, create a difference, among other, in response to EU's budget expenditure. The analysis starts by focusing on individuals' attitudes towards income from their own effort, and income which is derived from other people's effort taking in mind that individual actions depends on their attitudes. In case that selfish individuals, preferring income derived from other people's effort ("unearned income"), are the dominant group, higher level of "unearned" income from redistributive policies will decrease effort and therefore decrease employment rate and growth rate in the specific area. Consequently it implies weaker positive effects of public expenditure and increasing regional inequalities. To test the hypothesis for EU budget expenditure the authors establish the link between a income from other people's effort with the re-distributive dimension of the EU budget. Considering the different attitudes among the individuals in EU it is expected to lead to significant differences in effectiveness of this redistributive policy among European regions and consequently diverse regional inequalities.

Empirical part research has involved data for 27 EU countries observed over two waves of European Value Surveys: 1999-2000 (Wave 1) and 2008-2009 (Wave 2). The results indicate the significant role of social attitudes for regional inequalities. More precisely, considering the fact that the higher values social attitudes variable represents higher share of "socially minded" individuals, the results indicate that society with less "selfish" individuals have lower levels of regional inequalities. Taking into account that EU includes countries with different social attitudes it raises the question is the simplification and uniform regional policy instruments appropriate answer for the regional problems in EU.

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KEYWORDS: *social attitudes, regional inequalities, EU budget expenditure*

INTRODUCTION

During economic and political integration in the EU, various steps led to the successive inclusion of more nations which have increased regional disparities within the EU. The importance of the regional inequalities does not have only ethnic and social dimensions but also an economic growth dimension. It is entrenched in the awareness that a common market requires a certain degree of homogeneity in economic development which is not necessarily an automatic outcome of the EU integration process (Becker et al., 2012). Moreover, a highly spatially imbalanced economy can distort both fiscal and monetary policies and make this problem even deeper (Gardiner et al., 2010).

In order to challenge these inequalities, more than one third of the EU's total budget is spent on so-called Cohesion Policy. Its main purpose is to promote the “overall harmonious development” of the EU, to reduce disparities between the levels of development of the various regions, and to strengthen its “economic, social and territorial Cohesion” (Art. 158 Treaty on European Union). During the years the budget has been increased significantly, from 5 % of the total Community budget for period 1975 – 1978 up to 35.7% for the current 2007-2013 programming period (Manzella and Mendez, 2009) indicating the raising importance of the regional inequalities issue.

The global economic crisis has had a major impact on the economies of EU Member States and on the livelihoods of millions of households. As a result of this public sector budget deficits and public debt levels have risen dramatically.

As the budget of the EU becomes tighter and major recipients of European regional transfers struggle with debt crises, questions about the proper utilization and effectiveness of transfers from EU budget to Europe's member states and regions has been hotly debated.

Investigating the spatial dimension of EU budget expenditure effectiveness is a broad research topic with mixed and contradictory results. Most of the investigation has mainly concentrated on the growth effects. While some authors do find evidence of a positive impact on economic growth (e.g., Dall'erba and Le Gallo, 2008; Ramajo et al., 2008, Becker et Eggert, 2010), others only find a weakly positive (e.g., Esposti and Bussoletti, 2008, Becker et al., 2011), statistically insignificant (e.g., Dall'erba and Le Gallo, 2008) or even a negative impact (e.g., Eggert et al., 2007).

There are several possible reason for the inconclusive results. Firstly the results might be biased due to the use of imprecise data. This problem is of special concern as the current

literature often utilizes structural funds commitments instead of actual payments. This results in measurement error as commitments may not be entirely completed or be called up with a delay, e.g. due to missing absorption capacity (Mohl i Hagen, 2010.)

Second possible reason is reverse causality. The allocation criteria of the structural funds are likely to be correlated with the dependent variable of economic growth, especially with the ratio of the regional GDP per capita (in PPS) and the EU-wide GDP. A region is eligible for the highest transfers relative to GDP if this ratio is below 75%. Furthermore, the effective payments by the European Commission to the regions depend on the abilities of the regions or countries to initiate and co-finance these projects. This ability is presumably affected by the economic situation of the regions themselves (Mohl i Hagen, 2010).

Thirdly, there may be unobserved or omitted variables. They have an impact on the regional growth rates but are not included in the specification. If the omitted variable is correlated with one explanatory variable, this could lead to significant problems (e.g. bias estimator).

Lack of clear results is also imminent for the impact on employment. Positive employment effects are established in the papers Busch et al. (1998), Bouvet (2005) and Bondonio and Greenbaum (2006). Empirical research showing no positive employment effects for EU regions (countries) is available in the papers Dall'erba and Le Gallo (2007), Heinemann et al. (2009) and Becker et al. (2010). Recently Mohl i Hagen (2011) indicating no clear evidence that EU funding promotes employment, especially in regions with a high share of low-skilled population.

Recent literature offers four main theoretical arguments why EU funding is not explicitly associated with positive total employment effects (Mohl i Hagen, 2011). First of the all, EU payments increase the employment level if they lead to human capital investment and not if they are used as capital subsidies (e.g. if the “scale effect” is greater than “substitution effect”).¹ Secondly, EU expenditure can have a positive effect on technological progress and taking into consideration the “skill-based technological change hypothesis” (Berman, Bound, and Griliches, 1994), technological progress may lead to an increase of the relative demand for high-skilled labor, and thus to a decrease in demand for low-skilled labor. Thirdly, in order to induce a positive employment effect, the regional labor supply must match the additional demand for labor. (Mohl i Hagen, 2011). Finally, in case when economy is

¹ “Scale effect” implicates that payments reduce capital costs, which leads to more output and employment. On the other hand, reduced capital costs increase relative costs of labor, which may cause (low-skilled) labor to be substituted by capital (“substitution effect”). Mohl and Hagen, 2011.

characterized by a positive output gap and a tight labor market situation, additional expenditure will not promote employment growth but leads to an overheating of the economy with an acceleration of price and wage inflation (Kamps et al., 2009).

Taking into consideration all above mentioned arguments and obstacles the European Commission presented its proposals for cohesion policy 2014-2020. Simplification has been one of the most popular demands for the new cohesion policy (European commission, 2012). Although simplification can be presented in many forms (such as harmonization of rules for several funds, increased flexibility, increased proportionality, clarification of rules to improve legal certainty, and digitalization of documents and processes, European commission, 2012) we would like to focus on dilemma can the uniform EU (regional) policy instruments could be appropriate answer for effectiveness.

More precisely, we analyze how the presence of social attitudes may influence the effectiveness of re-distributive dimension of EU budget expenditure measured by the level of regional inequalities.

The motivation for the research is the fact that traditional economic theory, relying on the assumptions of rationality and self-interested behavior, is unable to explain a range of economic phenomena (e.g. collective action, contract theory, the structure of incentives, political economy and the results of several experimental games, Dhimi and Nowaihi, 2010; Flamand, 2012).

Taking into consideration the fact that rational choice theory starts with the idea than individuals choose actions according to social attitudes (Levin and Milgrom, 2004) it makes sense to show why individuals may respond differently to their social attitudes. We do so by following the paper written by Witzum (2008).

Social attitudes, defined as our views of the others as a collective, create a difference, among other, in response of agents to changes in what is perceived to be “earned” and “unearned” income (Witzum, 2008.). The simplest distinction between “earned“ and “unearned“ income implies that the level of one source of income is directly connected to one’s own actions (on labor, or effort), while that of the other, depends on other people’s actions (on labor, or effort). Thus, the way we view the others could be detrimental to our response to changes in income.

Also, if it is assumed that social attitudes translate into individuals’ choice of action it could be of tremendous help in explaining the existence of individuals with selfish-preferences and

with social preferences. Traditional conceptions of rationality indicates that when income depends on our own actions, tension may arise between the disutility of effort (or labor) and the utility derived from additional income. Therefore actors that are only interested in their own payoffs (selfish-preferences) prefer “unearned” income because it implies the benefit (income) without the cost (effort, labor). Actors motivated by the payoffs of others (social-preferences) are in position of balance between “benefit without cost” (“unearned” income) and utility derived from the payoffs of actors that provide “unearned” income. If the utility derived from the payoffs of other actors and earned income exceed the utility from “unearned” income such an individual will be named “socially minded”. In all other cases it represents “selfish individual”.

The above-mentioned classification could be useful tool for examining how the presence of social attitudes may influence the effectiveness of different aspect of redistributive policies. In case that selfish individuals are the dominant group, higher level of “unearned” income from redistributive policies will decrease effort and therefore decrease employment rate (increase unemployment rate) and growth rate in the specific area. However, if the share of “socially minded” individuals is high, then higher level of “unearned” income from redistributive policies will have completely different outcome for employment and growth rate and consequently for regional inequalities.

The crucial point is to define what individuals define as “earned income” and what as “unearned income”. The establishing the link between the “unearned income” as an income that depends on other people’s actions and national public expenditure of EU member states can be problematic considering the financial sources of national budgets. On other hand, this link could be easier to establish with EU budget expenditure taking in mind that most of the people in EU still do not see themselves as Europeans in first place (Special Eurobarometer 379, 2011).

Therefore, the different social attitudes could have more intensive consequences for effectiveness of EU budget expenditure then for national public expenditure. Although EU budget is not formally intended to be the main tool of the redistributive policy of EU countries, in the light of possible “more Europe agreement” it makes these aspects an extremely valuable topic.

Primarily, the research could help dealing with the argues that one reason for the weak performance of EU expenditure is the existence of too many objectives and the higher level of effectiveness could only be reached by simplification and unification of the policy

instruments for all member countries in EU. Moreover, considering the possible influence and different values of the social attitudes, it could show that identical instruments of EU policy in different social environment could not be effective.

EMPIRICAL RESULTS

Data issues

Data has been used from Eurostat and European Values Survey (EVS) database. The availability of European Values Survey (EVS) data dictates the size of the sample to be estimated. Since these Surveys are not conducted regularly, we do not have a continuous dataset at hand. Considering that our most important variables, social attitudes represent with the EVS data and the regional inequalities and EU budget data represent by Eurostat data, are cross-referencing in only two time series observations we use data only for periods 1999/2000 and 2008/2009.

Although this limits estimation techniques that can be used, we believe that the conducted empirical analysis can still give important insights.

The model we use is given below:

$$RI = \beta_1 + \beta_2 EXP + \beta_3 GE + \beta_4 OPT + \beta_5 GDPpc + \beta_6 SA + \beta_7 GDPpc * SA$$

where RI stands for Regional inequalities, EXP refers to Total EU budget expenditures, GE to National Government consumption, OPT stands for Openness, GDPpc for GDP per capita and SA for Social attitudes.

The regional inequalities is measured by the sum of the absolute differences between regional (NUTS III level) and national GDP per inhabitant, weighted with the share of population and expressed in percent of the national GDP per inhabitant. The indicator is calculated from regional GDP figures based on the European System of Accounts (ESA95). The dispersion of regional GDP is zero when the GDP per inhabitant in all regions of a country is identical, and it rises if there is an increase in the distance between a region's GDP per inhabitant and the country mean. This measure of regional inequality has been chosen considering the fact that the measure fulfills the standards introduced by Portnov and Felsenstein (2010) which are used to test sensitivity of commonly used income inequality measures to changes in the ranking, size and number of regions into which a country is divided.

Success of the research depends on defining social attitudes. For this purpose the results from *European Value Survey* has been used with special focus on topics considering *Moral*

Attitudes, Politics and Society and *National Identity*. More precisely, the new variable that should represent social attitudes include combination of answers to the following questions:

- *e035: equalize incomes vs. incentives for individual effort;*
- *e037: individual vs. state responsibility for providing;*
- *f114: do you justify: claiming state benefits*

Individuals preferring equalizing incomes, state responsibility and not claiming state benefits which are not entitled to should represent “socially minded” individuals. Individuals preferring incentives for individual effort, individual responsibility and claiming state benefits which are not entitled to should represent “selfish” individuals.

Taking assumption that regional inequalities were influenced only by the social attitudes is rather restrictive and results can potentially suffer from the omission of other (possibly) significant determinants of regional inequalities. Thus we test whether the relationship between regional inequalities and social attitudes holds when including additional explanatory variables.

In this regard, we would ideally like to include all potential determinants as suggested by the existing literature. However, regional data on these aspects are rarely available and/or of poor quality and we thus chose the following variables.

The first explanatory variable considered is a measure of EU budget expenditure. Although the most of the researchers use data for EU Cohesion funds (see Boldrin and Canova, 2001, Beugelsdijk and Eijffinger, 2003, De la Fuente, 2002, Becker et al, 2010,) we use the level of EU budget expenditure. The reason is the fact that other parts of EU budget have also redistributive dimension with spatial consequences.

The second variable to be considered is a measure of government expenditure, which also may have been a cause of regional divergence in the EU. In order to control for the possible influence of this variable we use the indicator expressed as general government final consumption expenditure as a percentage of GDP.

The next control variable is national trade openness. The inclusion of this can be seen as important given the technological spillovers, which have been found to be important in the literature for regional inequalities, are related to trade intensity (Coe and Helpman, 1995, Gianetti 2002). The empirical literature on trade and growth generally uses the ratio of total trade (import+export) to GDP in order to measure trade openness.

The last additional explanatory variable is a initial level of GDP.

Methodological Issues

Our panel consists of 27 EU countries observed over two waves of European Value Surveys: 1999-2000 (Wave 1) and 2008-2009 (Wave 2). This number of “time series” observations (Wave 1 and Wave 2) is relatively small compared to the number of countries. This “wide and short” dimension of our data set is quite important as it determines the estimating technique to be used. Due to a very small time-series dimension we cannot, unfortunately, explore the dynamic behaviour of regional inequalities. As for the cross-sectional characteristics, we account for the country heterogeneity by allowing each country to have its own intercept, by using the fixed effects model (FE). The variables in our model are likely to vary systematically by country for reasons such as different natural resource endowment, hence we need to control for this in order to avoid omitted variables bias. One of the main disadvantages of the FE model is that the conclusions are restricted to effects in the sample. However, since our main interest is the relationship between the explanatory variables and regional inequalities in the countries in our sample, this does not pose a problem, as we do not want to make inference outside the EU27.

Results

The fixed effect model assumes that country heterogeneity (assumed away in pooled data) is captured by the intercept term. This means every country gets its own intercept, while the slope coefficients are the same. Most researchers would probably agree that cross-sectional heterogeneity is to be expected in our model - there are probably many unmeasured variables that determine regional inequalities and that their influence gives rise to different intercept for each country. In order to make sure that FE model suits our data better than a simple pooled OLS model, we run an F-test comparing for the pooled OLS results with the results from the FE estimation. The F-test for the exclusion of the fixed-effects (the p-value is 0.01) suggests that the fixed-effects are not redundant and should be included in the model. Based on that evidence, we pursuit our empirical investigation choosing the FE over the pooled OLS estimator. We use the latter, however, only as a robustness check for the obtained FE results. Table 2 reports the FE estimates.

Table 2: FE estimates (dependent variable: regional inequalities)

<i>Coefficients</i>		
Cons	155.3439*	(0.02)
EXP	0.0004	(0.535)
GE	- 0.3627	(0.361)
OPT	- 0.1885	(0.116)
GDPpc	- 0.0031*	(0.077)
SA	- 206.3357**	(0.024)
GDPpc×SA	0.0066**	(0.021)
R²		
No of obs	37	

Notes: Numbers reported in parentheses are p-values. *, ** and *** denote significance at the 10, 5 and 1 percent, respectively.

Aforementioned econometric details have been integrated in our analysis with the results present in Table 2. The Table 2 offers negative and significant coefficient for social attitudes that could be interpreted as evidence for the first contribution of the paper, an evidence for hypothesis that social attitudes has important influence on the level of regional inequalities. Moreover, considering the fact that the higher values social attitudes variable represents higher share of “socially minded” individuals the results indicate that society with less “selfish” individuals have lower levels of regional inequalities.

The coefficients on control variables are not all statistical significant and they deviate from expected signs. The statistically insignificant positive effect of EU budget expenditure for regional inequalities could be consequence of propositions for EU funding and short period of implementation. The explanation for government consumption is more complex considering all the determinants that define it. Although coefficient on real openness do not have expected sign it is not recognized as statistically significant.

To allow for the possibility that the relationship between *GDP per capita* and regional inequalities is stronger if a country comprises of “less selfish” individuals, an interaction term between GDPpc and Social Attitudes ($GDPpc \times SA$) is added in the model. The presence of a significant interaction indicates that the effect of GDP on regional inequalities is different at different values of the Social Attitudes variable. Of course, adding an interaction term in the model changes the interpretation of the coefficients measuring the effects of GDP and Social

Attitudes on regional inequalities. Since the interaction indicates that the effect of GDP *per capita* on regional inequalities is different of different values of Social Attitudes, the unique effect of GDP on regional inequalities is not limited to GDP, but also depends on the values of the Social Attitudes and the coefficient on the interaction term. The coefficient on interaction term between GDPpc and Social Attitudes indicate that on higher levels of GDP higher share of “socially minded” individuals increase regional inequalities implying that choice of actions of individuals are strongly affected by national economic welfare.

Robustness check - Pooled regression

The parsimonious model based on the FE estimator is the model that we favour for inference. We assume that all behavioural differences between countries and over time are captured by the intercept. At this stage, however, as a robustness check, we relax this assumption and simply pool the data, neglecting both time-series and cross-section character of the data. Table 3 gives the Polled OLS results.

The results for Table 3. suggest negative and significant coefficient for social attitudes that confirms hypothesis that social attitudes has important influence on the level of regional inequalities.

Table 3: Pooled OLS estimates (dependent variable: regional inequalities)

Coefficients	
Cons	116.803*** (0.003)
EXP	0.0006* (0.083)
GE	- 0.5388 (0.12)
OPT	0.0749** (0.037)
GDPpc	- 0.0028** (0.01)
SA	- 125.821** (0.025)
GDP×SA	0.0039** (0.034)
R²	
No of obs	37

*Notes: Numbers reported in parentheses are p-values. *, ** and *** denote significance at the 10, 5 and 1 percent, respectively.*

When compared to their FE estimates, the total expenditures variable (*EXP*) gains the statistical significance (although only at the 10% of statistical significance), while the size of

its effect on regional inequalities remains almost the same. The effect of government consumption (*GE*) remains negative and statistically insignificant, while the effect of trade openness (*OPT*) changes both the direction and significance. The effect of GDP per capita (*GDP*) is quite robust as it remains almost identical, particularly in its size. The same holds for both Social attitudes (*SA*) and the interaction term ($GDP \times SA$).

CONCLUSION

As the global economic crisis rises and budget of the EU becomes tighter, questions about the proper utilization and effectiveness of transfers from EU budget to Europe's member states and regions are in focus of all relevant actors.

The recent literature investigating the spatial dimension of EU budget expenditure effectiveness offers mixed and contradictory results. Although there are several possible reasons for such inconclusive results the research focuses on the social attitudes.

The motivation is in the fact that individuals choose actions according to social attitudes. Social attitudes, defined as our views of the others as a collective, create a difference, among other, in response of agents to changes in what is perceived to be "earned" and "unearned" income (Witztum, 2008.). Therefore actors that are only interested in their own payoffs (selfish-preferences) prefer "unearned" income because it implies the benefit (income) without the cost (effort, labor). Actors motivated by the payoffs of others (social-preferences) are in position of balance between "benefit without cost" ("unearned" income) and utility derived from the payoffs of actors that provide "unearned" income.

The above-mentioned classification has been starting point for examining how the presence of social attitudes may influence the effectiveness of different aspect of redistributive policies. In case that selfish individuals are the dominant group, higher level of "unearned" income from redistributive policies will decrease effort and therefore decrease employment rate (increase unemployment rate) and growth rate in the specific area and consequently increase regional inequalities.

The crucial point is to define what individuals define as "earned income" and what as "unearned income". Taking in mind that most of the people in EU still do not see themselves as Europeans in first place (Special Eurobarometer 379, 2011) the authors find it proper solution to establish the link between "unearned income" and EU budget expenditure.

Empirical part of research covers data for EU member countries used from Eurostat and European Values Survey (EVS) database. Since these Surveys are not conducted regularly it covers only two time series observations for periods 1999/2000 and 2008/2009.

The results indicate that social attitudes has important influence on the level of regional inequalities. Moreover, considering the fact that the higher values social attitudes variable represents higher share of “socially minded” individuals the results indicate that society with less “selfish” individuals have lower levels of regional inequalities.

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