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Poverty Dynamics in Clusters of European Union Countries: Related Events and Main Determinants

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Abstract

So far the dynamics of income poverty in European countries has been analysed in a comparative perspective using the ECHP dataset, the first EU-scale panel survey ran from 1994 to 2001 in the “old” 15 member states. By means of the EU-SILC longitudinal data, the main purpose of this paper is to up-to-date such kind of analysis up to 2007 and to extend it including also the “new” EU member states. Being the time span covered by EU-SILC too short for carrying out survival analysis on poverty duration and recurrence, in this paper we focus on income poverty mobility only, identifying and analysing which are the main determinants associated to households’ fall into or exit from poverty. Analyses are carried out grouping EU countries in the five usual geographical clusters. The results show that events related to the labour market are the most important in all clusters both because of their frequency and their relevant impact on poverty transitions. Demographic events are, on the contrary, everywhere, much less relevant.

JEL classification: D31, I32

Keywords: Poverty dynamics; poverty entry and exit; events related to poverty transitions; international comparisons; European countries clusters.

1. Introduction

As known, twelve countries have joined the European Union since 2004. The enlargement of EU in 2004 and 2007 had a relevant impact from many aspects. The enlarged European Union covers a wider territorial area, gathering together many different socio-economic realities. The new member states are countries that have gone through very different paths from the ones experienced by the economies in the Western Europe (which are also extremely heterogeneous). Many new

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member states recently experienced the transition towards the market economy, reformed social security system and, in many cases, are still modifying the roles of public and private providers in social protection schemes (Cerami 2006; Cerami and Vanhuysse 2009).

In this context, it seems extremely relevant to focus the attention on poverty within the European Union, analysing in particular its dynamic dimension of this phenomenon. So far the dynamics of income poverty in European countries has been compared by means of the European Community Household Panel (ECHP), which provided longitudinal data on living conditions between 1994 and 2001 for the “old” EU-15 member states. The main purpose of this paper is to extend such kind of analysis to the “new” member states, using the longitudinal component of the European Union Statistics on Income and Living Conditions (EU-SILC), that covers almost all current EU countries since 2005.

To the best of our knowledge, no study analysed so far relative poverty in the enlarged EU in a longitudinal perspective and focussing on events related to individual mobility up and down the poverty threshold³. However, given the limits of the EU-SILC panel – mainly its short observation window – we are not allowed to analyse the length and the recurrence of poverty spells. Hence, in this paper we focus on frequencies and determinants of poverty entry and exit.

The analysis is carried out in a comparative perspective. Actually, we do not focus on single countries’ performances, but we study differences in poverty trajectories comparing the usual five EU countries clusters (Anglo-Saxon, Nordic, Continental, Southern and Eastern). This choice is in line with the literature suggestion that the welfare regimes strongly influence poverty dynamics in EU15 (Fouarge and Layte 2005).

The paper is organized as follows. After having discussed the benefits from studying poverty in a dynamic perspective and the main methodological issues (section 2), in section 3 we describe the EU-SILC dataset, specifying which are the countries clusters. Afterwards, we present the results of our descriptive empirical analysis (section 4), showing the main indicators of poverty dynamics for a three years period and observing which are the main events associated with poverty entry and exit according to the classification pioneered by Bane and Elwood (1986). Finally, logit regressions are run in order to test which covariates are associated with poverty spell endings and beginnings in the five EU countries clusters (section 5). Section 6 concludes, summing up main evidences.

³ Reinstadler and Ray (2011) recently analysed poverty dynamics for EU27 member states, but their focus was on disentangling the role of micro and macro factors in explaining the probability of being income poor in 93 EU-regions. Jenkins and Van Kerm (2012) described patterns of persistent poverty across 21 EU countries. Their scope is examining the extent to which the measures of current and persistent income poverty rank EU countries differently. Furthermore, two recent studies (Till and Eiffe 2010; Van Kerm and Pi Alperin 2011) analysed the dynamics of material deprivation and income in the enlarged EU.

2. Static poverty versus dynamic poverty

Poverty indexes in a certain time do not disclose information about past history of persons who are suffering from economic hardship. Poverty, as well as inequality and deprivation, is not a fixed condition, but a complex phenomenon developing over time. As many works claim (e.g. Walker 1994; Jenkins 2000, 2011; Addison *et al.* 2009), taking time into account is crucial to draw a complete picture of poverty duration and transitions and to design effective anti-poverty policies.

Focussing on poverty, three crucial issues can be analysed when a longitudinal perspective is used (Jantti and Danziger 2000; Jenkins 2000; Riegg *et al.* 2008): i) the determinants of poverty transitions; ii) the duration of poverty spells; iii) the recurrence of poverty spells.

Studies on poverty duration (over a given period) allow to comprehend if poverty is a transitory status which all individuals are exposed to in some phases of their life (i.e. temporary poverty) or it has characteristics lasting for several years (i.e. persistent poverty)⁴. Further, the features of the long lasting poverty have to be pointed out, disentangling if individuals frequently move in and out from poverty (i.e. poverty recurrence) or if they spent several consecutive spells in poverty.

The analysis of poverty mobility inquires the main determinants of transitions in and out from poverty. These transitions could be linked to individuals' or households' characteristics or to specific events changing individuals' (or households') needs or resources⁵. According to the seminal paper by Bane and Elwood (1986), the literature uses to distinguish demographic and economic events. The first kind of events regards changes of family composition (e.g. births, deaths, marriage, divorce), the second concerns factors leading to changes of family income (e.g. changes of occupational statuses, increases or decreases of workloads or welfare benefits).

Analysis of poverty dynamics needs panel data, i.e. the same individuals and/or household have to be followed over a number of periods. Due to the increased availability of suitable longitudinal data, many empirical studies on poverty dynamics have been carried out recently. In general these studies refer to a single country (e.g. Jenkins and Rigg 2001 for the UK; Riegg *et al.* 2008 for the US; Devicienti and Gualtieri 2007 for Italy), whereas relatively few papers compare poverty dynamics for many countries. Some of these focus on a limited number of developed countries (Antolin *et al.* 1999; Oxley *et al.* 2000; Valletta 2006; Duncan *et al.* 1993). However, after the

⁴ It is worthwhile highlighting that there is a terminological heterogeneity in defining poverty over time. Chronic poverty, lifetime poverty, permanent/persistent poverty, intertemporal poverty, recurrent poverty, longitudinal poverty, multi-period poverty, long term poverty are only some of the expressions that can be found in the literature for defining poverty conditions repeated over time. Behind these different verbal expressions, there is sometimes a different conceptualisation of who is to be considered poor in a longitudinal view (Walker 1994).

⁵ Relative poverty mobility may also occur due to mere changes of the threshold. However these movements are more frequent when very long time spans (decades) are observed and thresholds could significantly change, whereas in a few years period movements of the threshold are usually very limited.

completion of the ECHP following individuals up to 8 years, several studies tried to answer to the three afore mentioned research questions of poverty dynamics comparing EU-15 member states⁶.

Longitudinal studies of the pre-enlarged EU generally show high levels of mobility into and out from poverty and point out that the share of the population experiencing poverty in at least one year is much larger than suggested by the cross-sectional figures. Hence, the majority of experiences of poverty are short-lived (but often they are characterized by recurrence), whereas a minority of the poor are below the threshold for the whole observation period.

Poverty transitions are much more related to economic events than to demographic ones and a major role is played by circumstances on the labour market. Further, empirical evidence shows that the probability of exit from (and enter in) poverty depends on the state duration: the longer is the period spent in a specific state (i.e. poor or non poor), the lower is the probability that the transition occurs⁷. Empirical evidence also highlights a positive link between poverty incidence, recurrence and persistency: EU countries with the highest poverty headcount ratios are also characterised by the highest shares of people persistently or recurrently poor.

3. Data

In this paper we study poverty mobility in the enlarged EU by using the longitudinal component of EU-SILC. This dataset is characterized by many pros: it covers through annual waves almost all EU countries; it is based on a homogeneous income concept, for both household disposable income and the different income sources (e.g. employment, self-employment, pensions, public transfers); several information about individuals' and households' features are recorded.

However, concerning the study of poverty dynamics EU-SILC presents some limits⁸. Individuals and households are followed for a maximum of four years by design; hence, due to the short observation window, analyses on duration of spells of poverty and recurrence cannot be carried out adopting appropriate modelling frameworks such as hazard rate model⁹.

Further, in EU-SILC there is a discrepancy between the time at which socio-economic and demographic characteristics are recorded (referred to the year of the interview) and the income

⁶ See, among others, Andriopoulou and Tsakloglou (2011), OECD (2001 and 2008), Mendola *et al.* (2009), Damioli (2010), Eurostat (2000), Fourage and Layte (2005), Bourreau-Dubois *et al.* (2003), Layte and Whelan (2002), Whelan *et al.* (2000, 2003), Vandecasteele (2011), Ayala and Sastre (2008).

⁷ The literature strongly disagrees on the reasons behind this evidence. Some authors believe that there is a pure "state dependency", whereas others think that it is mostly due to individual unobserved heterogeneity.

⁸ For a discussion of survey errors in EU-SILC see Verma *et al.* (2010).

⁹ About the methodological issues on how to model poverty dynamics see Jenkins (2000), Aassve *et al.* (2006) and Calvo and Dercon (2009).

reference period that is the calendar year preceding the year of data collection¹⁰. Moreover, in some countries (notably in Nordic ones and in Netherlands) individuals changing household are no more tracked by the EU-SILC panel, whereas in the other countries the number of splits (i.e. individuals changing household and again interviewed in the following waves) seems rather limited even if we apply the sample weights provided by Eurostat (e.g. in Italy about 200 persons change household each year).

Anyhow, EU-SILC is very well suited for the purposes of our research: updating to recent years the picture of poverty dynamics, including also new accession countries, and studying events associated to movements in and out from poverty.

Our analysis is based on the 2005-2007 waves of the longitudinal EU-SILC covering 22 EU countries¹¹. Of the current EU-27 member states, longitudinal data are not available, in our EU-SILC UDB files¹², for Germany and for three new member states (Malta, Bulgaria, Romania). Due to some anomalies in sample weights, we excluded also Cyprus.

According to welfare regime and geographic location, EU countries are grouped into the following five clusters¹³: 1) Nordic: Sweden, Denmark, Finland; 2) Continental: Austria, Belgium, France, Luxembourg and Netherlands¹⁴; 3) Anglo-Saxon: United Kingdom and Ireland; 4) Southern: Italy, Spain, Greece and Portugal; 5) Eastern: Poland, Hungary, Czech Republic, Slovakia, Slovenia, Latvia, Lithuania and Estonia.

Our comparison will consider these five clusters as the units of observation. However, it has to be noticed that relative poverty thresholds used in the analyses of the following sections are computed at the national level rather than at the cluster level. Hence, cluster's values are a weighted average of national results.

We use a balanced panel of individuals (adults and children) who remained in the sample from 2005 to 2007 (200,780 observations). For overcoming possible bias due to the different country capacity to follow individuals changing household, we exclude from the sample the very few individuals moving outside the family in the observed period (less than 1,000 observations).

¹⁰ Only exceptions are Ireland and United Kingdom, that use a sliding reference period for income. In Ireland, it refers to the 12 months prior to the interview date, in UK it is centred on the interview date.

¹¹ We do not use the 2004 wave because data on new accession countries are available only since 2005. Moreover, we do not consider the 2008 wave for a couple of reasons: a higher number of missing countries and the consideration that for our analysis of short term transitions in and out from poverty three waves are enough.

¹² We used the longitudinal data base version 2007-3 from 01-08-2010.

¹³ Basic studies on literature about welfare regimes (identifying the four usual political and geographical clusters) are Esping Andersen (1990) and Ferrera (1996). On this topic, see also the survey of Arts and Gelissen (2002) and Composto (2008), who, by means of a cluster analysis, identifies a further Eastern countries welfare regime. Actually, literature on welfare regimes of Eastern EU countries is still limited founding often contrasting results (Barysch 2006; Composto 2008). Anyhow, for our purposes grouping together the Eastern EU countries seems proper.

¹⁴ Netherlands is usually considered a hybrid case (Arts and Gelissen 2002). However, according to classifications proposed by Ferrera (1996) and Bonoli (1997) and for geographical reasons we include it among Continental countries.

In accordance with the European Commission methodology, we set the relative income poverty threshold as the 60% of yearly disposable equivalent¹⁵ median income for each country in each year¹⁶. Hence, an individual is counted as poor in a given year if his/her equivalent income (computed starting from his/her household disposable income¹⁷) is below the poverty threshold¹⁸.

Due to the afore-mentioned time mismatch in the reference period of individual and household characteristics and of income variables, variables collected in different waves have to be associated in order to analyze poverty dynamics: e.g. income recorded in 2006 has to be associated to characteristics collected in the 2005 wave¹⁹. Consequently, we have contemporaneous data on income and individual and household characteristics for only two income years. Econometric analysis of section five, run by using incomes and individual characteristics, will then be based on two income years (2005-2006)²⁰.

All monetary amounts are expressed in 2006 prices in Euros by means of the country's Harmonized Index of Consumer Prices to allow for comparisons across time. Further, to be comparable across countries, values are adjusted through the Purchasing Power Parities provided by Eurostat.

Finally, we classify as poverty transitions each observed movement across the threshold, independently on the size of the gap from the threshold before and after the transition. Some previous studies attempted to distinguish between "genuine" transitions and smaller income variations, which may arise from income volatility or measurement error and are arguably less significant²¹. For example Jenkins (2000), in order to avoid these effects, focused on poverty transitions that moved individuals to an income at least ten per cent higher/lower than the poverty

¹⁵ The equivalence scale applied is the modified OECD scale, that gives a weight of 1 to the first adult in the household, 0.5 to other household members aged 14 and over and 0.3 to each child aged less than 15.

¹⁶ Following a different research perspective, Fahey (2007) argues that an EU-wide poverty threshold should be used to calculate "at risk of poverty" rates alongside a nationally relative measure. For a comparison of the outcomes associated with different static poverty indicators in the enlarged EU see Whelan and Maître (2009).

¹⁷ Household disposable income is the aggregate across all adult household members of all monetary income receipts by any source during the reference period, deducting direct tax payments (income taxes and employee social insurance contributions). Hence in the disposable income concept they are included employment and self-employment incomes (including the value of company car), cash welfare transfers and transfers received from other households and income from investments, savings and occupational pensions. On the contrary, in kind welfare benefits (e.g. education and healthcare provided free or subsidized by the government), imputed rent for people owning the accommodation, the value of goods produced for own consumption and non-cash labour income (apart from company car) are excluded.

¹⁸ As usual, the equivalent income of the household is attributed to each member, assuming a common living standard within the household.

¹⁹ The advantage of this procedure is that the definition of poor is based on contemporaneous information on incomes and needs. Such simultaneousness is crucial for the correct measurement of the effect of events on the individual's probability of experiencing transition. See Debels and Vandecasteele (2008) for a discussion of the empirical relevance of ignoring this time lag in analysing poverty dynamics in the European Union.

²⁰ Hence, we drop information on incomes in 2004 (declared in the 2005 wave) and on individuals' and households' characteristics in 2007.

²¹ The recent literature on poverty measurement (see, for example, Whelan and Maître 2006) shows that there could be an overestimation of income poverty transitions – in particular of poverty exits – due to measurement errors.

line. We prefer to observe each movement because the definition of “genuine” transitions seems arbitrary and because, in the econometric analysis of section 5, we control for the distance from the threshold before the transition occurs.

4. The dynamics of poverty in an enlarged Europe: descriptive findings

Before testing covariates of poverty mobility we provide an overview of the observed patterns of poverty in EU countries’ clusters in the period 2004-2006²². Firstly, we show the distribution of number of years spent in poverty and the frequencies of transitions in and out from poverty (section 4.1) and then we observe the main events related to these transitions (section 4.2).

4.1 Poverty rates in EU countries’ clusters

Table 1 and 2 show respectively the current at-risk-of-poverty rate and the share of individuals classified as poor N time out of three in EU countries’ clusters²³. As expected, the share exposed to poverty at least in one year during the observation period (on average about 25% of the European population) is much higher than the static poverty rate (about 15%)²⁴. This confirms that poverty mobility exists and that for a substantial share of the population poverty is a transient situation. Actually, approximately half of those individuals poor at least for one year are poor for a single year. Anyway, some people are poor for a longer period of time: 7% of the European population is found to have a disposable income below the national poverty threshold during the whole observation period. At cluster level, Continental and Nordic countries are characterized by the lowest rates of poverty (static and dynamic), while Southern and Anglo-Saxon countries display the highest ones (static and dynamic). Eastern European cluster has an intermediate position.

Tab. 1: Current at-risk-of- poverty rate in EU countries’ clusters

| | 2004 | 2005 | 2006 |
|-------------|------|------|------|
| Northern | 11.7 | 12.8 | 13.2 |
| Continental | 13.5 | 12.9 | 12.9 |
| Anglo-Saxon | 20.0 | 20.8 | 21.6 |
| Southern | 19.9 | 19.9 | 19.4 |
| Eastern | 16.4 | 15.2 | 14.3 |

Source: Authors’ estimates from EU-SILC 2005-2007 longitudinal data.

²² Years reported in this paper refer to income year.

²³ It has to be remarked that we compute year specific national poverty thresholds. People at risk of poverty in each country are then grouped at the cluster level; hence the poverty rate of each cluster is a weighted average of the countries’ percentages.

²⁴ All estimates presented in this paper are derived using the sampling weights supplied by Eurostat in the EU-SILC files.

In all clusters, the always-poor rate is less than temporary one, but poverty seems to be more persistent in the Southern and Nordic countries where 35% and 33% of poor individuals are in poverty during the whole observed period. On the contrary it seems to be more a short-term experience in Anglo-Saxon and Continental where 51% and 49% are poor for only one year.

Tab. 2: Share of individuals classified as poor N time out of three in EU countries' clusters

| | 0/3 | 1/3 | 2/3 | 3/3 |
|-------------|------|------|-----|------|
| Northern | 79.8 | 9.1 | 4.7 | 6.4 |
| Continental | 77.8 | 10.8 | 5.6 | 5.8 |
| Anglo-Saxon | 65.9 | 17.6 | 9.0 | 7.6 |
| Southern | 70.0 | 11.3 | 8.2 | 10.5 |
| Eastern | 74.3 | 12.0 | 7.0 | 6.7 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data.

Given the different sizes of the population potentially affected by the two events (respectively not poor and poor individuals), in percentage values the flow into poverty is much less than the one out of poverty (Table 3)²⁵. Concerning the 2005-2006 transition (on which subsequent section will focus), Anglo-Saxon countries have the highest poverty entry rates (15.4%), followed by Southern ones (7.1%). The other European clusters show similar patterns of poverty entry. About exit out of poverty, the Eastern cluster has the highest exit rate and the Continental group is not far behind, whereas poor individuals living in Southern countries have the lowest observed probability to move out of poverty. The Nordic and Anglo-Saxon countries rank in an intermediate position

Tab. 3: Flows into and out of poverty in EU countries' clusters in 2005-2006 (% values)

| | Entry into poverty ¹ | Exit from poverty ² |
|-------------|---------------------------------|--------------------------------|
| Northern | 5.4 | 33.9 |
| Continental | 5.9 | 39.8 |
| Anglo-Saxon | 15.4 | 36.0 |
| Southern | 7.1 | 31.0 |
| Eastern | 6.2 | 40.6 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data. ¹Share of people currently not poor becoming poor the following year. ²Share of people currently poor becoming not poor the following year.

The short observation period available in EU-SILC does not allow a detailed inquire of the recurrence of poverty spells, but it is interesting to observe the share of people changing status in two subsequent years (Table 4). The risk of coming back into poverty in 2006 after having escaped from it in 2005 is the highest in Anglo-Saxon countries (34.3%) and the lowest in Nordic ones

²⁵ Entry rates are calculated as the share of non-poor individuals in "t" that becomes poor in "t+1". Exit rates are computed as the share of poor individuals in "t" that exits from poverty in "t+1".

(16.9%)²⁶, whereas the share of individuals poor only in the central year of the observation period is similar across clusters (around 27-28%), apart from the Anglo-Saxon cluster where it is relatively much lower (18.5%).

Tab. 4: Poverty recurrence in EU countries' clusters

| | Poor in 2004, non poor in 2005, poor in 2006 ¹ | Non poor in 2004, poor in 2005, non poor in 2006 ² |
|-------------|--|--|
| Northern | 16.9 | 27.3 |
| Continental | 27.3 | 28.6 |
| Anglo-Saxon | 34.3 | 18.5 |
| Southern | 24.4 | 28.1 |
| Eastern | 21.9 | 26.0 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data. ¹Share between individuals with this particular poverty trajectory and individuals experiencing two periods in poverty in the three years period. ²Share between individuals with this particular poverty trajectory and individuals experiencing one period in poverty in the three years period.

4.2. Events related to poverty transitions across EU countries' clusters

As it was pointed out, a main aim of this paper is to analyse the association between some main events experienced by individuals and households and poverty spells endings and beginnings. Following the seminal paper by Bane and Elwood (1986), we distinguish demographic and economic events triggering poverty entries and exits²⁷. In particular, according to suggestions by Jenkins and Rigg (2001), Berthoud and Böheim (1998), Jenkins and Schluter (2003), we identify some “main” situations faced by households and we relate them to changes in their poverty condition, drawing on the idea that poverty transitions are associated with “trigger events” – e.g. changes in household members', labour market attachment and earnings, changes in non-labour income (s welfare benefits) or changes in household composition – and these events have different impacts on the probability to move in or out from poverty.

According to variables available in the longitudinal EU-SILC the events considered in this paper are the following:

1. Demographic events: changes in the number of household members, in the number of household members affected by bad health²⁸ and in the individual marital status.

²⁶ The ratios of table 4 are computed comparing the share of individuals with a particular poverty trajectory during the three years period and the number of individuals experiencing two years in poverty (column 2) or one year in poverty (column 3).

²⁷ In general, economic events are those associated with changes in different types of income, whereas demographic events include events modifying the number of household's members.

²⁸ Individuals answering that their general health is bad or very bad to the ph010 EU-SILC variable are considered affected by bad health.

2. Economic events: change in the household head²⁹, changes in the total number of labour income earners in the household, in the household total worked months in a given year, in the total weekly usual worked hours and changes in household main income sources (i.e. income from employment, self-employment, pensions and other welfare transfers). It has to be noticed that a “change of income event” is identified when the percentage change (decrease or increase) exceeds 5%³⁰.

Entry into poverty is associated with “negative” events (e.g. increase of number of individuals, decrease of incomes and their determinants), whereas exit is related to “positive” ones. These events occur when the associate variables changes from 2005 to 2006 (i.e. when the variable associated to the event is not constant in the 2005 and 2006 waves of EU-SILC).

As expected, in all groups of clusters economic events are more frequently associated with poverty transitions than demographic events (Tables 5 and 6). The share of other events – i.e. of poverty transitions associated neither to economic neither to demographic changes (e.g. income movements lower than 5%) – is also quite important in some clusters (in Nordic and Eastern countries regarding poverty entry and in Anglo-Saxon countries concerning poverty exit)³¹.

Tab. 5: Share of individuals entering into poverty experiencing “negative” demographic and/or economic events in the period 2005-2006

| | At least one negative demographic event | At least one negative economic event | At least both one negative economic and one negative demographic event | Other kinds of events |
|-------------|---|--|---|--------------------------|
| Northern | 8.1 | 64.9 | 4.4 | 31.4 |
| Continental | 11.2 | 93.7 | 10.8 | 6.0 |
| Anglo-Saxon | 11.4 | 99.8 | 11.4 | 0.2 |
| Southern | 10.7 | 93.9 | 10.1 | 5.5 |
| Eastern | 10.8 | 71.9 | 7.8 | 25.0 |

Source: Authors’ estimates from EU-SILC 2005-2007 longitudinal data.

In all group of countries around 10% of movements into poverty and 12% of movements out of poverty are associated with demographic events, and the most frequent demographic event related to poverty transition is, with slight differences among clusters, the change of the number of household members (an increase in case of poverty entry, a decrease in the opposite sense; Tables 7 and 8).

²⁹ The household member receiving the highest total individual income in a given year is identified as the household head. As said, people moving out of the household are not included in our sub-sample. Hence, the most of the household head changes between 2005 and 2006 refers to variation in the intra-household earnings capacity.

³⁰ The choice of a 5 per cent is somewhat arbitrary but it is intended to identify meaningful changes in income.

³¹ Similar results were found by Berthoud and Böheim (1998), who argue that many poverty transitions are accounted for by a diversity of routes, none of which is very common.

Tab. 6: Share of individuals exiting from poverty experiencing “positive” demographic and/or economic events in the period 2005-2006

| | At least one positive demographic event | At least one positive economic event | At least both one positive economic and one positive demographic event | Other kinds of events |
|-------------|---|--------------------------------------|--|-----------------------|
| Northern | 11.9 | 97.4 | 11.9 | 2.6 |
| Continental | 14.2 | 91.5 | 13.5 | 7.8 |
| Anglo-Saxon | 12.3 | 73.8 | 6.5 | 20.4 |
| Southern | 10.7 | 91.8 | 10.1 | 7.5 |
| Eastern | 12.3 | 98.6 | 11.9 | 1.0 |

Source: Authors’ estimates from EU-SILC 2005-2007 longitudinal data.

Tab. 7: Share of individuals entering into poverty experiencing a “negative” demographic event in the period 2005-2006.

| | Increase in the number of household members | Increase in the number of household members affected by bad health | Divorce/separation | At least one "negative" demographic event |
|-------------|---|--|--------------------|---|
| Northern | 5.1 | 3.4 | 0.2 | 8.1 |
| Continental | 6.9 | 3.6 | 0.9 | 11.2 |
| Anglo-Saxon | 7.8 | 3.0 | 0.7 | 11.4 |
| Southern | 6.2 | 4.3 | 0.5 | 10.7 |
| Eastern | 6.2 | 4.1 | 1.0 | 10.8 |

Source: Authors’ estimates from EU-SILC 2005-2007 longitudinal data.

Tab. 8: Share of individuals exiting from poverty experiencing a “positive” demographic event in the period 2005-2006.

| | Decrease in the number of household members | Decrease in the number of household members affected by bad health | Marriage | At least one "positive" demographic event |
|-------------|---|--|----------|---|
| Northern | 6.5 | 1.2 | 5.2 | 12.0 |
| Continental | 9.2 | 4.4 | 0.9 | 14.2 |
| Anglo-Saxon | 8.2 | 4.2 | 0.7 | 12.3 |
| Southern | 6.7 | 3.9 | 0.5 | 10.7 |
| Eastern | 8.2 | 3.5 | 0.9 | 12.3 |

Source: Authors’ estimates from EU-SILC 2005-2007 longitudinal data.

Concerning economic events, clusters’ differences emerge more clearly (Tables 9 and 10). In Continental, Anglo-Saxon and Southern countries almost all transitions into poverty are associated to unfavourable economic events, whereas in the two remaining groups of countries around 30% of transitions are not related to a change in household economic resources. Focusing on the specific economic events related to poverty entries (Table 9), it emerges that a very high (around 50%) share

of “new poor” experiences a decrease in employment income in Continental, Anglo-Saxon and Southern countries whereas it is around 20% in Nordic and Eastern countries. Further, in Southern countries a relatively high share of entries is related to a decrease of self-employment income (also due to the higher share of GDP coming from self-employment in Italy, Spain, Greece and Portugal), whereas, in line with the idea of a “residual” liberal Welfare State, around 2/3 of entries are associated with a welfare benefit decrease in UK and Ireland.

Concerning poverty exits, nearly all transitions are associated with positive economic events in Continental, Eastern, Nordic and Southern countries, whereas in the Anglo-Saxon group around 30% of transitions are not related to a change in household economic resources (Table 10). Relatively few exits from poverty are associated with an increase of employment income and of welfare benefits in Anglo-Saxon and Southern countries, whereas for the other groups, the bulk of transitions out of poverty occurs contextually to an increase of these two income sources.

Tab. 9: Share of individuals entering into poverty experiencing a “negative” economic event in the period 2005-2006

| | | Decrease of (at the household level) | | | | | | | |
|-------------|------------------------------|--------------------------------------|----------------|---------------|-------------------|------------------------|-----------------|------------------|--|
| | Change in the household head | Number of income recipients | Working months | Working hours | Employment income | Self-employment income | Pensions income | Transfers income | At least one "negative" economic event |
| Northern | 16.8 | 26.7 | 15.8 | 21.8 | 23.0 | 16.6 | 3.9 | 18.5 | 64.9 |
| Continental | 12.9 | 23.0 | 26.8 | 28.3 | 49.5 | 16.8 | 11.4 | 49.0 | 93.7 |
| Anglo-Saxon | 17.4 | 36.0 | 25.0 | 23.4 | 58.9 | 15.4 | 37.6 | 62.5 | 99.8 |
| Southern | 17.4 | 33.0 | 30.4 | 29.0 | 50.8 | 34.9 | 18.7 | 32.7 | 93.9 |
| Eastern | 15.9 | 32.8 | 32.6 | 30.9 | 20.5 | 9.4 | 9.0 | 18.1 | 71.9 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data.

Tab. 10: Share of individuals exiting from poverty experiencing a “positive” economic event in the period 2005-2006

| | | Increase of (at the household level) | | | | | | | |
|-------------|------------------------------|--------------------------------------|----------------|---------------|-------------------|------------------------|-----------------|------------------|--|
| | Change in the household head | Number of income recipients | Working months | Working hours | Employment income | Self-employment income | Pensions income | Transfers income | At least one "positive" economic event |
| Northern | 23.0 | 34.8 | 15.4 | 10.9 | 63.8 | 19.8 | 19.2 | 54.6 | 97.3 |
| Continental | 12.6 | 27.2 | 20.3 | 16.0 | 48.2 | 7.7 | 14.3 | 40.4 | 91.5 |
| Anglo-Saxon | 14.7 | 28.1 | 17.0 | 17.9 | 14.3 | 5.6 | 15.7 | 19.1 | 73.8 |
| Southern | 11.7 | 33.5 | 21.8 | 23.4 | 37.3 | 21.2 | 18.6 | 19.4 | 91.8 |
| Eastern | 14.4 | 36.9 | 36.1 | 22.9 | 58.2 | 26.8 | 23.8 | 61.2 | 98.6 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data.

5. Econometric analysis

As remarked in previous sections, due to the few years covered by the panel, survival analysis, proper for highlighting poverty duration and recurrence, cannot be carried out by means of the EU-SILC dataset. However, such dataset allows to study for all EU countries' clusters which are the main covariates associate to transitions into and out of poverty.

In line with papers by Valletta (2006), Whelan *et al.* (2000), Reinstadler and Ray (2011), Addabbo (2000) and Addabbo and Baldini (2000), we estimate poverty exit and entry probabilities in a two years period (i.e. 2005-2006), controlling for characteristics of the household head observed in the base year (2005) and for changes in some characteristics (i.e. for the occurrence of some events³²) between the two years³³. Further, we use information about the poverty status in 2004 for measuring the persistency or the recurrence of individual poverty spells (therefore, for partially controlling for individual unobserved heterogeneity)³⁴.

In particular we estimate two logit models³⁵ referring respectively to the determinants of entry into and exit from relative income poverty³⁶. The first model estimates the probability to be poor in 2006 for the sub-sample of not poor in 2005 (tables 11-12), whereas the second one assesses the probability not to be poor in 2006 for the sub-sample of individuals lying below the poverty threshold in 2005 (tables 13-14)³⁷.

For both transitions considered (i.e. poverty entry and exit) the following groups covariates are considered:

- a) Household characteristics (tenure status and the main income source: employment, self-employment and welfare and pension transfer).

³² There is much controversy in the literature on whether multivariate models should include event variables as covariates or only "state variables" which may be both time-constant and time-varying. For a discussion see Jenkins (2000).

³³ Because some events are potentially endogenous, the models do not identify causal relationships.

³⁴ Focusing on transitions rather than on spells duration well known right and left censoring issues become less huge. Left censored spells occur because the sample is drawn when a person is in poverty, so we do not observe that person entering poverty; right-censored spells occur because a person is in poverty at the end of the sample period, so we do not observe that person exiting poverty. Censored spells are a particularly important problem in duration analyses because they may bias results (Riegg *et al.* 2008). In the following econometric analysis we add among covariates also a dummy identifying the poverty status one year before the observed transition also for alleviating left censoring issues.

³⁵ Our specific approach captures fewer of the complexity of poverty dynamics than more elaborate approaches used in recent analyses that focus on duration dependency and repeat spells of poverty. As already stated, the panel used here is too short for such models. Nonetheless, our analysis can yield important insight about covariate effects on poverty transitions in the enlarged EU. Moreover, other previous studies on poverty dynamics have used the logit specification (e.g. OECD 2001; Antolin *et al.* 1999; Oxley *et al.* 2000; Valletta 2006; Bourreau-Dubois *et al.* 2003).

³⁶ Both poverty entry and exit equations have a binary dependent variable, where a 0 indicates that the transition has not occurred and a 1 indicates that the transition has occurred.

³⁷ We do not model the probability of escaping poverty and the probability of becoming poor for men and women separately. For an analysis of gender differences with respect to the impact of labour market events and demographic events on poverty dynamics see Bourreau-Dubois *et al.* (2003) and Callens and Croux (2009).

- b) Personal characteristics of the household head (gender, age, marital status and highest education attainment).
- c) Poverty status in 2004 (a dummy variable).
- d) Relative distance from the poverty line in 2005 (a continue variable, called “gap” if the individual lies under the poverty threshold in 2005).
- e) The occurrence of demographic and economic events: all events are identified by means of dummy variables (their values are 1 if the event occurs, 0 otherwise)³⁸.

All regressions are run separately for each geographical cluster, but including among covariates country fixed effects (i.e. a dummy for each country belonging to the cluster).

For both kinds of transitions we run two different models: the “model 2” includes as covariates all the afore-mentioned groups of variables, whereas in “model 1” dummy related to events occurrence are not included. In tables 11-14 estimated odds ratios of the logit models and their significance are shown. Hence an odds ratio higher than 1 means that the explicative variable positively affects the probability of the poverty transition under scrutiny, whereas an odds lower than 1 means that such variable is negatively associated with the poverty transition.

5.1 Determinants of poverty entry across EU countries’ clusters

Concerning poverty entry, looking at the model excluding “events” among the covariates (model 1, Table 11), it has to be remarked that the age of the household head is in many cases not significant (the reference modality is the age group 45-54). Anyhow, higher chances to fall in poverty regard the young families in Eastern and Anglo-Saxon countries whereas in Nordic and Southern countries a lower risk to become poor regards household headed by an individual at the end of his/her working career (i.e. aged in the class 55-64) and in Anglo-Saxon countries the elderly experience the highest poverty risk. A significant higher risk for household headed by females emerges in Nordic and Anglo-Saxon countries, whereas a lower vulnerability for married heads is observed in Southern and Eastern countries.

As expected, everywhere the risk to become poor steadily decreases with the household head educational attainment and the sizes of the estimated odds are very similar across country clusters. Further, in all clusters households whose main income source is employment are significantly less at risk, while the tenure status shows some interesting association with the risk to move into poverty: people paying a mortgage are everywhere (apart from Eastern and Southern countries

³⁸ We consider only events and poverty transitions occurred at the same time. A further issue concerns whether events occurring in the current period can affect transitions in future periods. For an analysis of this issue, see Vandecasteele (2010).

where the association is not significant) less at risk to become poor (the capacity to get a mortgage is probably related to better unobservable household characteristics), whereas tenants are usually more at risk than owners, apart from Nordic countries.

Tab. 11: Determinants of individuals' poverty entry in EU countries' clusters.
Logit model: estimated Odds Ratios. Model 1

| | Nordic | Continental | Anglo-Saxon | Southern | Eastern |
|------------------------|---------|-------------|-------------|----------|---------|
| Female | 1.58*** | 0.98 | 1.20* | 0.97 | 0.96 |
| Age<25 | 0.9 | 0.87 | 2.46*** | 1.03 | 1.15 |
| Age25_34 | 0.83 | 1.02 | 1.28 | 1.08 | 1.30*** |
| Age35_44 | 0.84 | 0.87* | 0.97 | 0.98 | 1.22*** |
| Age55_64 | 0.64** | 1.04 | 1.02 | 0.84* | 0.93 |
| Age>64 | 0.87 | 1.04 | 1.28* | 0.96 | 1.10 |
| Single | 0.83 | 1.1 | 0.93 | 1.26*** | 1.28*** |
| Separated | 1.05 | 1.19 | 1.28* | 1.30* | 1.63*** |
| Widow | 1.09 | 0.68** | 1.42** | 0.86 | 1.33*** |
| Upper secondary | 0.81* | 0.80*** | 0.71*** | 0.64*** | 0.77*** |
| Tertiary | 0.55*** | 0.59*** | 0.56*** | 0.60*** | 0.48*** |
| Self-employment | 3.12*** | 3.32*** | 3.32*** | 2.92*** | 1.84*** |
| Transfers | 2.12*** | 2.34*** | 1.64*** | 1.34*** | 1.30*** |
| Owner with a mortgage | 0.25*** | 0.73*** | 0.65*** | 0.93 | 1.11 |
| Tenant | 0.76* | 1.32*** | 1.21 | 1.64*** | 1.19 |
| Favoured tenant | 0.81 | 1.22* | 1.41** | 1.31*** | 1.25*** |
| Poor in 2004 | 3.22*** | 3.44*** | 2.86*** | 3.52*** | 3.21*** |
| Distance in 2005 | 0.35*** | 0.31*** | 0.56*** | 0.32*** | 0.22*** |
| Country fixed effects | Yes | Yes | Yes | Yes | Yes |
| Number of observations | 17,363 | 38,552 | 10,038 | 38,291 | 58,581 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data. Reference modalities are the following: age45_54 for age group; married for marital status; at most lower secondary for educational attainment; employment income for main income source; owner for tenure status. Significance level: *95%; ** 99%; *** 99.9%.

As expected, being frequent the poverty recurrence (and being a proxy of unobservable individuals' characteristics), having been poor in 2004 significantly increases the probability to come back again in poverty in 2006 everywhere (and odds are similar in size), whereas, of course, the more individuals are distant from the threshold in 2005, the less likely is their movement into poverty.

The household characteristics discussed so far may influence the probability to drop into poverty both because these are a pure signal of vulnerability and because having some characteristics might increase the probability of occurrence of events strongly related to the poverty status. As noticed in previous section, transitions into and out of poverty are very often associated with favourable and unfavourable events. It is then very probably that, once included among covariates, dummies about events are strongly significant. Anyhow, it is interesting to observe whether in some countries some

types of events are not significantly correlated to poverty (as it were, for instance, if a drop in employment income were fully replaced by welfare transfers, or a fall in the number of recipients were faced up by higher workloads) and whether the household characteristics still exert a specific association with the poverty transition once events are explicitly included in the regressions (Table 12).

Tab. 12: Determinants of individuals' poverty entry in EU countries' clusters.
Logit model: estimated Odds Ratios. Model 2

| | Nordic | Continental | Anglo-Saxon | Southern | Eastern |
|-------------------------|---------|-------------|-------------|----------|---------|
| Female | 1.41*** | 0.89 | 1.13 | 0.84** | 0.95 |
| Age<25 | 0.85 | 0.73 | 2.16*** | 0.79 | 1.00 |
| Age25_34 | 1.03 | 1.04 | 1.43** | 0.87 | 1.24** |
| Age35_44 | 1.05 | 0.93 | 1.07 | 0.99 | 1.27*** |
| Age55_64 | 0.79 | 1.09 | 1.01 | 0.77** | 0.89 |
| Age>64 | 1.74*** | 1.63*** | 1.48** | 1.33*** | 1.39*** |
| Single | 0.95 | 1 | 0.84 | 1.1 | 1.14* |
| Separated | 1.18 | 1.31** | 1.22 | 1.41** | 1.63*** |
| Widow | 1.44 | 0.79 | 1.71*** | 0.92 | 1.32*** |
| Upper secondary | 0.89 | 0.81*** | 0.83* | 0.68*** | 0.82*** |
| Tertiary | 0.61*** | 0.66*** | 0.69*** | 0.78** | 0.55*** |
| Self-employment | 2.83*** | 3.08*** | 2.78*** | 1.94*** | 1.86*** |
| Transfers | 2.10*** | 2.03*** | 0.98 | 1.06 | 1.17* |
| Owner with a mortgage | 0.39*** | 0.79** | 0.74** | 1.07 | 1.16 |
| Tenant | 0.95 | 1.49*** | 1.45** | 1.80*** | 1.35** |
| Favoured tenant | 1.02 | 1.41*** | 1.48** | 1.39*** | 1.40*** |
| Poor in 2004 | 4.41*** | 3.57*** | 3.17*** | 3.22*** | 3.26*** |
| Distance in 2005 | 0.22*** | 0.20*** | 0.50*** | 0.19*** | 0.17*** |
| Increase members | 0.87 | 1.04 | 1.84*** | 1.12 | 1.04 |
| Increase bad health | 1.38 | 1.39* | 1.40 | 1.03 | 1.00 |
| Divorce | 1.58 | 1.44 | 2.39* | 0.96 | 1.52* |
| Decrease recipients | 5.49*** | 2.93*** | 3.98*** | 2.61*** | 2.89*** |
| Change head | 2.51*** | 1.86*** | 2.10*** | 1.64*** | 1.34*** |
| Decrease months | 2.85*** | 1.27** | 1.34** | 1.1 | 1.34*** |
| Decrease hours | 0.96 | 0.91 | 1.18* | 0.94 | 1.33*** |
| Decrease transfers | 1.37** | 2.03*** | 2.45*** | 1.86*** | 1.45*** |
| Decrease emp. inc. | 4.76*** | 4.71*** | 1.15 | 4.31*** | 3.36*** |
| Decrease self-emp. inc. | 2.81*** | 3.41*** | 1.65*** | 4.34*** | 2.50*** |
| Decrease pensions | 4.72*** | 4.72*** | 2.13*** | 3.54*** | 2.25*** |
| Country fixed effects | Yes | Yes | Yes | Yes | Yes |
| Number of observations | 17,363 | 38,552 | 10,038 | 38,291 | 58,581 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data. Note: Reference modalities are the following: age45_54 for age group; married for marital status; at most lower secondary for educational attainment; employment income for main income source; owner for tenure status. Significance level: *95%; ** 99%; *** 99.9%.

Controlling for events, a higher risk for “older households” emerges in all clusters, especially in Nordic and Continental countries. In almost all groups of countries, being married, owner of the house of residence, attaining a high educational level and earning income mainly from employment are characteristics associated with a lower probability to fall below the poverty threshold, whereas being transfers recipients increases the risk to drop into poverty. Having been poor in 2004 significantly and highly increases the probability to come back again in poverty in 2006 everywhere, whereas, of course, the more individuals are distant from the threshold in 2005, the less likely is their movement into poverty.

Concerning demographic events, the growth of the family members increases the risk to become poor only in Anglo-Saxon countries where, together with Eastern countries, the divorce makes individuals very vulnerable. As expected, nearly all negative economic events significantly increase the likelihood of falling into poverty everywhere. The econometric analysis then confirms a relative lower relevance of demographic events as determinants (or correlates) of transitions into poverty.

5.2 Determinants of poverty exit across EU countries’ clusters

Without including events among covariates, logit model on the probability to exit from poverty (Table 13) shows no gender differences and a higher probability to escape from poverty for “old” households everywhere and for “young” ones in Eastern and Nordic countries. Chances to exit from poverty increase with the educational attainment, especially in Nordic, Southern and Eastern countries and a higher probability to overcome the threshold regards married rather than widow and divorced. Households owning their house have a higher likelihood to exit from poverty.

Further, it has to be highlighted that, apart from Nordic and Eastern countries where the estimated odds ratios are not significant, earning the most of income from self-employment is associated with a higher probability to escape from poverty (especially in Continental and Anglo-Saxon countries), whereas, as remarked previously, it is also associated with a higher risk to become poor. Such opposite effect could be due to the higher volatility of self-employment income, so that, *ceteris paribus*, self-employers could be characterized by more frequent movements up and down the poverty threshold. People living mostly from pensions and transfers have a lower capacity to improve their situation than exiting from poverty, especially in Nordic and Continental countries. As expected, a significant risk to be trapped into poverty (maybe due to lower unobservable characteristics) emerges everywhere, being much lower than 1 the estimated odds for individuals already poor in 2004, whereas, of course, a higher gap in 2005 makes more difficult the exit from poverty.

According to the same strategy used for assessing determinants of poverty entry, main “positive” demographic and economic events are added among covariates (Table 14), taking into account that, as said before, the household characteristics could exert a direct association on the chances to exit from poverty and an indirect one, i.e. via the association between these characteristics and the frequency of the occurrence of “positive” events.

Tab. 13: Determinants of individuals’ poverty exit in EU countries’ clusters.
Logit model: estimated Odds Ratios. Model 1

| | Nordic | Continental | Anglo-Saxon | Southern | Eastern |
|------------------------|---------|-------------|-------------|----------|---------|
| Female | 0.98 | 1.08 | 1.21 | 1.12 | 1.04 |
| Age<25 | 1.79** | 1.01 | 0.64* | 1.21 | 1.51*** |
| Age25_34 | 1.79** | 1.27* | 0.76 | 1.05 | 1.33*** |
| Age35_44 | 0.9 | 1.19 | 0.73 | 0.86* | 0.85* |
| Age55_64 | 1.12 | 0.65*** | 0.9 | 0.74*** | 1.07 |
| Age>64 | 0.48*** | 0.59*** | 0.57** | 0.63*** | 0.70*** |
| Single | 1.07 | 0.99 | 1.04 | 0.96 | 0.81** |
| Separated | 1.18 | 0.69** | 1.21 | 1.13 | 0.69*** |
| Widow | 0.46* | 0.95 | 0.47*** | 0.89 | 0.82* |
| Upper secondary | 1.54*** | 1.11 | 1.79*** | 1.29*** | 1.33*** |
| Tertiary | 2.80*** | 1.85*** | 1.42* | 2.66*** | 2.17*** |
| Self-employment | 0.77 | 1.67*** | 2.22* | 1.18* | 1.12 |
| Transfers | 0.48*** | 0.59*** | 1.18 | 0.82** | 0.92 |
| Owner with a mortgage | 1.45** | 1.17 | 1.24 | 1.03 | 1.40** |
| Tenant | 0.87 | 0.74** | 1.19 | 0.85* | 0.81* |
| Favoured tenant | 0.71 | 0.66*** | 0.64** | 0.79*** | 0.88* |
| Poor in 2004 | 0.25*** | 0.32*** | 0.34*** | 0.35*** | 0.44*** |
| Gap in 2005 | 0.20*** | 0.61** | 0.15*** | 0.36*** | 0.16*** |
| Country fixed effects | Yes | Yes | Yes | Yes | Yes |
| Number of observations | 2,160 | 4,894 | 1,972 | 9,143 | 9,658 |

Source: Authors’ estimates from EU-SILC 2005-2007 longitudinal data. Reference modalities are the following: age45_54 for age group; married for marital status; at most lower secondary for educational attainment; employment income for main income source; owner for tenure status. Significance level: *95%; ** 99%; *** 99.9%.

In the complete model (Table 14), a significant association among all economic events and the probability to escape from poverty is in general found everywhere, whereas the improving of household individuals’ health status and the marriage are not a predictor of a higher probability of changing the family status. The decrease of the number of household members (controlling for the number of recipients and for the effects on individual equivalent income changes) is associated to a worse status in Continental Europe and to a better one in Nordic, Eastern and Anglo-Saxon countries. It is then again confirmed the prevalence of economic events as correlated to poverty mobility. Controlling for events, the association between age and exit out of poverty strongly

weakens (also for the oldest groups), apart from Nordic countries. A better educational attainment is associated with a lower risk to be trapped in poverty everywhere.

Tab. 14: Determinants of individuals' poverty exit in EU countries' clusters.
Logit model: estimated Odds Ratios. Model 2

| | Nordic | Continental | Anglo-Saxon | Southern | Eastern |
|-------------------------|---------|-------------|-------------|----------|---------|
| Female | 0.94 | 0.91 | 0.94 | 0.98 | 0.94 |
| Age<25 | 2.73*** | 0.85 | 0.71 | 1.45* | 1.35* |
| Age25_34 | 3.43*** | 1.19 | 0.8 | 1.27* | 1.49*** |
| Age35_44 | 1.13 | 1.12 | 0.87 | 1.08 | 0.85* |
| Age55_64 | 2.57*** | 0.87 | 1.34 | 0.96 | 1.26* |
| Age>64 | 1.29 | 0.88 | 0.71 | 1.12 | 0.88 |
| Single | 1.32 | 1.30* | 1.11 | 1.05 | 0.88 |
| Separated | 1.33 | 1.14 | 1.73** | 1.66*** | 0.98 |
| Widow | 0.75 | 1.15 | 0.42*** | 1.16 | 0.99 |
| Upper secondary | 1.69*** | 1.00 | 1.76*** | 1.29*** | 1.24*** |
| Tertiary | 3.13*** | 1.92*** | 1.56* | 2.65*** | 2.06*** |
| Self-employment | 0.65 | 1.26 | 2.09* | 1.06 | 1.18 |
| Transfers | 0.42*** | 0.58*** | 0.65* | 0.66*** | 0.84* |
| Owner with a mortgage | 1.39* | 1.08 | 1.54* | 1.04 | 1.50** |
| Tenant | 0.96 | 0.76* | 1.26 | 0.87 | 0.94 |
| Favoured tenant | 0.84 | 0.76* | 0.93 | 0.84* | 1.06 |
| Poor in 2004 | 0.28*** | 0.30*** | 0.40*** | 0.38*** | 0.44*** |
| Gap in 2005 | 0.10*** | 0.43*** | 0.04*** | 0.17*** | 0.13*** |
| Decrease members | 1.88** | 0.51*** | 1.61* | 0.8 | 1.39*** |
| Decrease bad health | 0.8 | 1.16 | 0.92 | 0.77 | 0.93 |
| Marriage | 0.86 | 0.87 | 0.94 | 0.64 | 1.21 |
| Increase recipients | 3.37*** | 2.20*** | 4.43*** | 5.46*** | 2.94*** |
| Change head | 2.64*** | 1.67*** | 1.24 | 2.00*** | 1.91*** |
| Increase months | 1.62** | 1.01 | 1.48* | 0.85 | 1.90*** |
| Increase hours | 0.92 | 1.73*** | 1.57* | 1.27** | 1.17* |
| Increase transfers | 1.46** | 2.06*** | 7.85*** | 1.89*** | 0.95 |
| Increase emp. inc. | 4.28*** | 6.80*** | 5.54*** | 4.85*** | 2.27*** |
| Increase self-emp. inc. | 3.29*** | 4.24*** | 4.02*** | 4.88*** | 1.90*** |
| Increase pensions | 2.41*** | 5.28*** | 8.16*** | 3.89*** | 1.57*** |
| Country fixed effects | Yes | Yes | Yes | Yes | Yes |
| Number of observations | 2,160 | 4,894 | 1,972 | 9,143 | 9,658 |

Source: Authors' estimates from EU-SILC 2005-2007 longitudinal data. Reference modalities are the following: age45_54 for age group; married for marital status; at most lower secondary for educational attainment; employment income for main income source; owner for tenure status. Significance level: *95%; ** 99%; *** 99.9%.

6. Conclusions

This paper provides a first broad-brush picture on poverty dynamics for individuals living in the enlarged EU, using EU-SILC panel data. The analysis has focused on poverty mobility, studying

the transitions into and out of poverty in the observed period and identifying what types of event are associated to the probability of entering and exiting from poverty in the five usual European countries clusters. Previous studies examined the relationship between events and poverty transitions only for “old” EU15 member states and their analysis were referred to last years of the 20th century.

Descriptive findings show the highest poverty entry rates in Anglo-Saxon and Southern clusters, whereas in the other European clusters around 6% of people currently not poor becomes poor. About exit from poverty, Eastern Europe and Continental groups are characterized by the highest probabilities to move out from poverty, on the contrary Southern countries have the lowest one; finally, Nordic and Anglo-Saxon clusters rank in an intermediate position. Movements into and out of poverty are usually more associated with economic events than with demographic events in all EU clusters.

Econometric analysis identifies some empirical regularity across all EU clusters. Some economic events (changes in the total number of labour income earners and changes in income from self-employment and from pensions), distance from the poverty line, recurrence and persistence of poverty status and household head education are significantly related to probabilities of entering and exiting from poverty in all EU clusters. On the contrary demographic events, household characteristics and some personal characteristics of the household head have a lower relevance and their impact differ across EU countries’ clusters. The reasons behind these divergences in poverty mobility across EU clusters are not always obvious and further research is needed in order to investigate such issues.

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