Social transfers and child poverty in European countries: pro-poor targeting or pro-child targeting?

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Abstract

Children are generally at a higher risk of poverty than the population as a whole, although the mechanisms that lead to their socioeconomic vulnerability vary widely across European countries. This paper aims to further our understanding of to what extent cross-country variations in child poverty risk are associated with different social policies. In particular, we address the potential impact on child poverty of countries' intent to target transfers to children and lower incomes across 30 European countries. Using a multilevel framework, we find that the variation in child poverty is mainly due to contextual factors, from the social protection system to the performance of labour market, as well as individual characteristics to a lesser degree. In terms of social policy, the results highlight that countries' intent to target children matters even more than countries' intent to target lower incomes for reducing child poverty, as well as the important role of household structure in relation to child poverty and the effect of targeting.

Keywords: Child poverty, social transfers, generosity, targeting, multigenerational households

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Introduction

Child poverty has currently become one of the most important topics requiring attention in Europe today. There is an imperative need to reduce child poverty in order to reach the European Union (EU) headline poverty reduction target set out by the Europe 2020 strategy. It is well documented in the literature that, on average, around one out of every five children is living in poverty in the EU (see Atkinson and Marlier, 2010; TÁRKI, 2011; among others). This

highlights the paradoxical reality of child poverty in the developed world, which has been aggravated in recent years by a growing income inequality.

Overall, the extent to which child characteristics manifest themselves in high poverty rates mainly depends on the household and institutional settings in which those characteristics are present. Previous analyses have most often focused on the macro relationships between institutions and outcomes, underlining the crucial role of family policy transfers in the alleviation of child poverty (see Kangas and Palme, 2000; Matsaganis et al., 2006; TÁRKI, 2010). However, there are good grounds for expecting an improvement in our understanding by bringing together country-level factors and micro-level characteristics of children in the analysis of child poverty because the redistributive outcomes of a particular system are dependent on the characteristics of the underlying population (Marx et al., 2016).

One of the institutional mechanisms through which public policies may influence child poverty is social expenditure consisting of direct transfers to households, which act by increasing household income and thus reducing the intergenerational transmission of poverty. From a rationale perspective, it works as a redistribution device or as insurance against unexpected income loss (see, e.g., Corak, 2006). The most accepted finding is that social transfer income packages as a whole play an important role in preventing poverty. Nevertheless, there is no consensus regarding the redistributive impact of targeted policies. Marx et al. (2016) claim that for a system to yield a strongly redistributive impact, it has to cater to broad sections of the electorate. The "paradox of redistribution" suggested by Korpi and Palme (1998) states that strong pro-poor targeting does not yield more income inequality reduction. It is often argued that pro-poor targeting is administratively complex and costly, that means-testing causes stigma and consequently non-take-up, and that it severely distorts work and family formation incentives (Van Oorschot 2002). However, other authors challenge this point of view and conclude that targeted policies are relatively more effective (Kenworthy, 2011 and Brady and Bostic, 2015)

The purpose of this article is to further our understanding of to what extent cross-country variations in child poverty risk is associated with different social policies. In particular, we address the potential impact on child poverty of countries' intent to target transfers to children and lower incomes from a comparative perspective. To this end, we consider two input indicators: pro-poor targeting (i.e. income targeting: the ratio of expenditure on means-tested transfers over expenditure on total transfers) and pro-child targeting (i.e. categorical targeting: the share of social protection expenditure specifically targeted at family/children). While pro-poor targeting is related to a vertical equity objective ("unequal treatment of unequals"), pro-child targeting refers to a horizontal equity objective ("equal treatment of equals") (see Verbist and Van Lancker, 2016). Our study is cross-national, which helps explore the effects of varied policy environments (see Valletta, 2006). Moreover, we simultaneously combine demographic and socioeconomic characteristics of children and the abovementioned country-level input indicators on social transfers, as well as other country-level variables on labour market performance and countries' living standards.

To facilitate an approach that integrates individual and contextual dimensions, we take advantage of multilevel techniques. We use the European Union Statistics on Income and

Living Conditions (EU-SILC) data set for the 2012 wave, as well as some significant contextual variables from Eurostat for 30 European countries. This paper extends on existing research by adopting a more comprehensive framework to evaluate the effect of national social transfer systems in reducing child poverty and providing empirical evidence from a broader analysis in terms of countries, types of household and age range of the children examined. In addition, to the best of our knowledge, this is the first contribution in the literature that addresses the potential impact on child poverty of countries' intent to target transfers to children and lower incomes. We try to answer if income targeting or categorical targeting matters most in reducing child poverty risk, and we check for the robustness of the previous answer when we control for indicators of labour market performance or for countries' living standards.

The remainder of the paper is as follows. The next section summarises the main findings and states some hypotheses. The data and explanatory variables are then described. Subsequently, the methodology is presented and the results are discussed. Finally, some conclusions are drawn.

Background and hypotheses

This section is divided into three parts. First, we sum up the main results regarding the influence of demographics and socioeconomic characteristics of households on the risk of child poverty. Second, we analyse the relationship between child poverty and country-level aspects. Finally, we highlight the differences of our contribution with respect to the three studies we know that combine country-level factors and micro-level characteristics to analyse the impact of social transfers on child poverty.

To begin with, previous literature shows that poverty risk in general, and child poverty risk in particular, is shaped by the demographic and socioeconomic characteristics of household members. It is very well documented that children are significantly more likely to be poor when they live with only one parent (Social Protection Committee, 2008; Atkinson and Marlier, 2010; Chzhen and Bradshaw, 2012; Skinner et al., 2017), as well as that the proportion of children in households where nobody works is strongly correlated with child poverty rates (Whiteford and Adema, 2007; Chen and Corak, 2008; TÁRKI, 2010). Multi-generational living arrangements have been shown to be a way to provide a safety net for some, especially for children (Duflo, 2000; Hamoudi and Thomas, 2005).

Some studies also report that child outcomes differ greatly at different stages of childhood reflecting different developmental stages and childcare arrangements (TÁRKI, 2011). Moreover, child well-being is directly affected by the type and quality of the dwelling where the child lives and it is usual that child poverty risk is greater for children living in rented and subsidised housing than for those whose parents are homeowners (Burrows, 2003; TÁRKI, 2011).

Eurostat (2013) indicates that the risk of poverty is higher in thinly populated areas of the EU than in densely and intermediate populated ones, suggesting a strong location effect in the risk of poverty.

Moreover, it is commonly accepted that child poverty risk is significantly shaped by the demographic and socioeconomic characteristics of parents. Several authors advocate placing children at a somewhat higher risk of poverty depending on households' age composition (Chen and Corak, 2008; Brady et al., 2009; Chzhen and Bradshaw, 2012). Other studies indicate the importance of parents' education, concluding that children that live with parents with a lower level of education are more likely to be poor than those whose parents have a higher level, since household income is influenced by the educational level of its members (Chzhen and Bradshaw, 2012; Gornick and Jäntti, 2012). In turn, parents' labour market participation is a fundamental determinant of child poverty given that employment-generated income is the most important source of the household budget (Ferrarini, 2006; Chen and Corak, 2008; Gornick and Jäntti, 2012).

According to Strelitz and Lister (2008) and Atkinson and Marlier (2010), there is a significant relationship between poverty and health status and disability, since these households face extra costs. There is also evidence of a greater risk of poverty among children whose parents are immigrants, especially if the parents were born outside the EU (TÁRKI, 2010).

As regards country-level aspects, researchers point out the importance of social policy, particularly financial assistance aimed at reducing the risk of child poverty (Misra et al., 2007; Scott, 2008; Bäckman, 2009; Bäckman and Ferrarini, 2010; Chzhen and Bradshaw, 2012; among others). In this sense, there is ample evidence that generous public support for families is significantly correlated to lower child poverty rates in countries where such policies are implemented (Ferrarini, 2006; Engster, 2012). Following the discussion above, in financially difficult times we can expect children to turn to the public welfare state for protection from poverty. It is assumed that countries spending a significant amount of their resources on social protection achieve a higher reduction in child poverty. Therefore, our first expectation reads as follows: (H1) *The higher the level of social expenditure on social transfers in a country, the lower the risk of child poverty*.

Unlike the consensus on the importance of the generosity level of social transfer income packages, the debate on the effectiveness of targeted policies to reduce child poverty remains open. This has been a controversial issue for a long time with diverse theoretical arguments (Kahn and Kamerman, 1975; Skocpol, 1991; Orloff, 1993). On the one hand, proponents of targeting benefits at the poor argue that it entails a more efficient use of resources because social spending goes to those who really need it (Besley, 1990). On the other hand, opponents of targeting benefits argue that universal benefits are superior over selective ones because significant administrative costs, lower rates of take-up, and labour market and savings disincentives reduce their effectiveness in combating poverty (Atkinson, 1998; Notten and Gassmann, 2008; Bradshaw, 2012).

Few studies have investigated the potential impacts of social benefits in relation to child poverty reduction (Matsaganis et al., 2006; Notten and Gassmann, 2008; Bradshaw and Huby, 2014; Bradshaw and Chzhen, 2015; Chzhen, 2016). In order to further our understanding of the association of cross-country variations in child poverty with social policy, it is necessary to assess countries' targeting intent aside from the level of spending. Targeted benefits distribute the available resources over a specific group, which theoretically allows benefits to

be more effective. We address the potential impact on child poverty of countries' intent to target children and lower incomes from a comparative perspective. We then suggest that: (H2) *The more the benefits a country targets to lower incomes, the lower the risk of child poverty*. Additionally, we assume that: (H3) *The higher the level of spending distributed amongst children and families in a country, the lower the risk of child poverty*.

Beyond the features of social protection systems, other country-level factors have also been taken into account in the literature, including countries' GDP per capita, although with contradictory conclusions. Thus, while Cantillon (2009, 2011) finds that relative income poverty tends to be lower in countries with higher GDP per capita across the EU-27, the opposite is highlighted by Engster (2012), and Chzhen and Bradshaw (2012) conclude that the effect of GDP on child poverty is not found to be statistically significant in lone-parent families. We would like to test if: (H4) *The effects of income and categorical targeting indicators on child poverty are robust to the control of a country's standard of living*.

Other contextual factors having a potential significant effect on child poverty are related to labour market performance (Brady, 2006; Whiteford and Adema, 2007; Chen and Corak, 2008; Bäckman, 2009), such that countries with higher employment rates show lower child poverty rates. In this sense, we may also test if: (H5) *The effects of income and categorical targeting indicators on child poverty are robust to the control of labour market performance*.

Regarding the family structure, Diris et al. (2017) state that it is an important driver of the structure of social spending. We want to check if this is the case in our study, that is, (H6) *The higher the presence of multigenerational households in a country, the lower the risk of child poverty, and the prevalence of multigenerational households in a country modifies the effect of categorical and income targeting on child poverty*.

Similarly to previous analyses, such as those of Chen and Corak (2008) and Gornick and Jäntti (2012), it is worth noting that the factors that matter within countries are not necessarily the same as those that matter across countries, and that institutional factors are usually more explanatory than demographic ones. Our hypothesis following from this idea is: (H7) *Contextual factors make a non-negligible contribution to explain the variation in child poverty between European countries*.

Analogously to our work although under a narrower framework, Bäckman and Ferrarini (2010), Chzhen and Bradshaw (2012) and Chzhen (2014) examine the impacts of social transfers on child poverty through multilevel modelling.

Bäckman and Ferrarini's (2010) results indicate that greater generosity of all types of family policy transfers at the macro level can be linked to lower poverty risks of households with pre-school children at the micro level. They also point out that future research should endeavour to connect transfers to other labour market aspects.

Chzhen and Bradshaw (2012) conclude that household characteristics do not explain all of the variation in the risks of child poverty though they find evidence of significant contextual country-level effects. They do not control for labour market conditions or analyse other aspects of social transfers in addition to generosity.

Chzhen (2014) finds that children were significantly less likely to be poor in countries with more generous minimum income protection schemes in 2008-2012. However, once total social

spending and working-age unemployment are accounted for, the effect of the minimum income protection indicator is no longer statistically significant.

Other studies observe that both national labour market patterns and social policy factors matter substantially, with this influence occurring via complex and interacting mechanisms (Bradbury and Jäntti, 2001; Rainwater and Smeeding, 2003). Chen and Corak (2008, p. 552) summed this up with a cautionary note to policymakers: 'there is no single road to lower child poverty rates. The conduct of social policy needs to be thought through in conjunction with the nature of labour markets'.

This paper is the first attempt in the literature that deals with the potential impact on child poverty of countries' intent to target children and lower incomes. To this end, a macro-to-micro approach is adopted. We expect an improvement in our understanding by bringing together country-level factors and micro-level characteristics of children in the analysis of child poverty. Moreover, a broader perspective than preceding studies in terms of countries, types of household, and the age range of the children is considered.

Data and variables

Data

In this paper we use the 2012 wave of the EU-SILC data set for 30 European countries (EU-28 plus Iceland and Norway). Contextual data stem from statistics collected by Eurostat for the countries involved in the analysis.

Our analysis is confined to children, defined as those under 18 years old living in the household unit (see Chzhen and Bradshaw, 2012; Gornick and Jäntti, 2012; among others). The analysis pools the data from the 30 countries into one merged file that contains 66,882 households with 113,181 children.[1] Following Eurostat, our poverty measure is based on annual disposable household income.[2] To adjust for household size we use the modified Organisation for Economic Co-operation and Development (OECD) equivalence scale.[3] The child is classified as poor if he/she lives in a household with disposable household equivalent income below 60 per cent of the contemporary median equivalent income of the country where the household is located.

Figure 1 displays child poverty rates for the 30 countries. We observe a significant variation in child poverty rates across countries in 2012, ranging from 8.20% to 33.88%. Romania, Bulgaria and Spain display the highest child poverty rates, while the lowest ones are found in Norway, Iceland and Denmark. As a group, 19.14% of all children in these countries are poor.

****Insert Figure 1****

We observe that most of the countries display a higher poverty rate for children than the overall population, with the remarkable exceptions of Denmark, Finland and Norway. In general, there is a significant positive correlation between child poverty rates and overall poverty rates. We also find that countries with higher child poverty rates present a large gap between child and overall poverty rates.

Explanatory variables

As all children in the same household share the same particular characteristics of the household, we use data from households – stored in the household file – combined with data on the characteristics of fathers and mothers of children, which are recorded in the individual file.

We consider the following explanatory variables related to the household as a whole. The descriptive statistics can be found in Table A2.1 and Table A2.2 of the Appendix. The binary variables *lone-parent, multigenerational* and *jobless* reflect lone parenthood, households in which children cohabit with at least one person aged between 18 and 64 and at least one person aged above 65, and households where no one works, respectively. We also take into account the number of children aged within several ranges: *Nch_2, Nch_3_5, Nch_6_11* and *Nch_12_17*. We include the variable *owner* that takes the value of 1 if the outright owner of the dwelling is a member of the household. Finally, we consider the variable *thinly populated*, which takes the value of 0 if clusters of contiguous grid cells of 1 km^2 have a density of at least 300 inhabitants per km^2 and a minimum population of 5,000, and 1 otherwise.

Besides household variables, researchers suggest that the characteristics of fathers and mothers are very relevant in explaining child poverty rates. We classify children as living with a *young father/mother* (younger than 30) and as living with an *old father/mother* (older than 65). Secondly, we consider the variable *secondary father/mother* and *tertiary father/mother* to capture the effect of education on child poverty. Thirdly, parents' labour market participation is considered through the binary variable *father/mother working* full time. We also incorporate the binary variable *health father/mother*, which indicates if their general health status is bad or very bad. Finally, we categorise children as living with *EU immigrant father/mother* and *non-EU immigrant father/mother*.

Our focus is to analyse the effect of social transfers. We present a set of contextual variables related to social transfers, as well as labour market and countries' standard of living, whose influence can be significant in child poverty rates according to the literature. All these variables introduced in the model are for 2011, which is the reference period for the household income for all countries except for the UK and Ireland (where the income reference period refers to the period around the interview with total income converted to annual equivalents and to 12 months prior to the interview, respectively), for which the variables refer to 2012.

Note that to examine the role of transfers in reducing poverty among children, we consider expenditure on all transfers.[4] There are other ways to assess the generosity of social transfer in the EU, such as the model family method (Van Mechelen et al., 2011; SaMiP in Nelson, 2007, 2010), even though it involves a number of problems (Eardley et al., 1996), namely a limited number of family types, representativeness of a family type in all countries, and data unavailable for the whole set of countries studied. Consequently, we introduce social transfers and control for the influence of demographic and macroeconomic circumstances on poverty using multilevel regression models in order to overcome some of the limitations of social transfers discussed in the literature.

It is worth stressing that in all countries except Greece, Spain and Poland, more than 60 per cent of families with children receive social transfers. These numbers are smaller if we refer to the proportion of overall families that receive transfers, although the same three countries have the smallest values. In all countries, child poverty rates would be higher if there were no transfers (Figure 2), although this analysis disregards any behavioural consequences of withdrawing them. These transfers appear to be most effective in reducing poverty in Norway, Iceland, Finland and Ireland, where they lower child poverty by 60 per cent or more. Overall, social transfers make more difference to child poverty rates in the older EU member states, with the exception of Greece, Italy and Spain, whose transfers are some of the least effective. This is not surprising as social transfers reach fewer children in these countries.[5]

****Insert Figure 2****

The assessment of the potential impact on child poverty of countries' intent to target children and lower incomes is made through two input indicators[6]: *income targeting*, defined as the ratio of expenditure on means-tested transfers over expenditure on total transfers multiplied by 100; and *categorical targeting*, defined as the share of social protection expenditure specifically targeted at family/children, that is, the ratio of expenditure on family/children transfers[7] over expenditure on total transfers multiplied by 100. In addition, we include as a control variable a measure of generosity of the social protection system, *generosity*, defined as cash spending on social protection as a percentage of gross domestic product (GDP). Eurostat provides the indicators that we use to test our first three hypotheses (H1, H2 and H3).

We also control for differences in the economic affluence of countries by introducing the variable GDP, which is the GDP per capita expressed in purchasing power standard as a percentage of the EU-28 average. This variable allows us to control for the effect of country-level living standards on child poverty risk and to test the robustness of our results in terms of social policy, which is our fourth hypothesis (H4).

Other factors having a potential significant effect on child poverty, and closely related to social transfer systems, are those referring to labour market performance. Given that parental unemployment is one of the main determinants of child poverty, higher unemployment rates within countries are also likely to contribute to higher child poverty rates. The variable *employment* is calculated by dividing the number of employed persons aged 20 to 64 by the total population of the same age group and multiplying by 100. We expect that children who live in countries with high employment rates are less likely to be poor.

However, the risk of poverty is conditioned more by work intensity and continuity in work than by having a job in itself. That is why, at country level, we take into account not only the employment rate, but also the percentage of individuals who are classified as employed and are poor (in-work poverty). In line with Marx et al. (2012), we expect that children living in a country with a high rate of working poor, once we control for the employment status at the household level, tend to have higher child poverty risk. Thus, if the effect of the generosity and targeting of social transfers on child poverty still remains significant even after controlling for

the effect of country-level living standards, the employment rate and in-work poverty rate, it is a stronger test of the significance of social transfer packages in alleviating child poverty, which is our fifth hypothesis (H5).

We also introduce the proportion of multigenerational households in a country, *% multigenerational households*, as a control variable.

Methodology

Our main aim is to explain cross-national variations in child poverty levels by examining the macro-to-micro relationship. We therefore account for a hierarchical data structure involving two levels: children (level 1) nested into countries (level 2). Following the idea that children may be influenced by their social and political context, we might expect that two randomly selected children from the same country will tend to be more highly correlated than two children selected from different countries, and it is important to account for such unobserved country-level effects.

Conventional multivariate regression techniques cannot be employed with hierarchical data since the standard errors of variables at higher levels will be underestimated given that the degrees of freedom are calculated as if they were at the first level. As country differences are of substantive interest in this paper, we need a model in which we can explore information beyond clustering. Thus, multilevel models are the appropriate alternative.

One of the main advantages when we use mixed or multilevel models is that we gain precision compared to using aggregate (country-level) data only.

We use a random intercept model[8] in which the intercept is allowed to vary between countries.[9] We consider a latent continuous response, y_{ic}^{*}, representing the propensity for child *i* in country *c* to be poor as compared to not poor such that:

$$y_{ic} = \begin{cases} 1 \; if \; y_{ic}^{*} > 0 \\ 0 \; otherwise \end{cases} \tag{1}$$

Let x_{ic} be a covariate. A linear regression model is specified for the latent response y_{ic}^{*}

$$y_{ic}^{*} = \beta_0 + \beta_1 x_{ic} + \xi_c + \varepsilon_{ic} \tag{2}$$

where ξ_c is the random intercept which represents the difference between the mean of child poverty risk in a given country *c* and the overall mean, and ε_{ic} are the individual level residuals, that is, the difference between the child poverty risk of individual *i* and the averaged child poverty risk in his/her country *c*. We can identify the variance of child poverty risk between countries, σ_{ξ}^{2}, and the variance of child poverty risk between individuals within countries, σ_{ε}^{2}. The residuals ε_{ic} are distributed as a logistic distribution with mean 0 and variance $\pi^2/3$, and are independent of ξ_c, which follows a normal distribution with zero mean. The variance partition coefficient (VPC) is defined as the ratio of the variance of child poverty risk between individuals within countries to total variance.

We first fit Model A that includes household-level variables to test if international differences in the contribution of demographic and socioeconomic factors that place children in families with different poverty risks may have an effect on the international child poverty gap. We then add the three indicators regarding social transfers (Model B) to check how much of the unexplained variation is due to differences in their levels. Model C adds the GDP per capita in the previous model to control for living standard effects. Model D controls for the labour market effect in order to test if the effect of social transfer remains after controlling for labour market differences and the country's mean income. Finally, the effect of multigenerational households and the possible differential effect of targeting depending on the presence of this type of household in a country is analysed in Model E.

Results

The results of the estimations for the five logistic multilevel models[10] with the random intercept are shown in Table 1.

****Insert Table 1****

We first estimate Model A. The effects of household characteristics are very similar across the four estimated models. Our results are in line with the literature: a child living with only one parent is 20% more likely to be poor than one living with two parents. Children living in multigenerational households are 41% less likely to be poor than those living in single-unit households; therefore, this type of family can be viewed as a safety net for children. We confirm that children in households where no one works have more than three and a half times higher odds of being poor than those living in households where at least one person is working. The odds of being poor increase by around 30 per cent with each additional child and even more if the child is between 12-17 years old. A child's odds of being poor are lower if he/she is living in a household that does not have to pay for the dwelling. According to Eurostat (2013), we find significant evidence that thinly populated areas in European countries are at a higher risk of poverty.

Regarding parents' characteristics, our results are aligned with previous results. We find that children living with a younger parent, a less educated parent or an unemployed parent are more likely to be poor. Contrary to our expectations, *the variable health father/mother* does not entail a significantly higher risk of child poverty.[11] Finally, children with an EU immigrant father/mother are more likely to be poor, and even more so in the case of those living with a non-EU immigrant father/mother.

As our objective is to analyse the effect of social transfers on child poverty among countries in depth, we introduce the three aforementioned indicators of social transfers (*generosity, categorical_targeting*, and *income_targeting*) in Model B. As expected, the results show that there is a statistically significant relationship between the indicators of social transfers and the child's likelihood of being poor. The higher the generosity and targeting, either categorical or income targeting, the lower the risk of child poverty, with pro-child targeting (categorical

targeting) having a higher impact on child poverty risk.[12] Therefore, we find evidence to accept the first three hypotheses.

In particular, the child's odds of being poor significantly decrease by 6.2 per cent for each 1-unit increase in the percentage of family/children transfers in relation to total transfers in the country. Adding the social transfer indicators to the model reduces the percentage of the residual variation in the risk of child poverty due to country effects (VPC) from 6.5 to 2.4 per cent, which represents a 63.47 per cent reduction in relative terms. This implies that variations in social transfers account for more than half of the unobserved country-level heterogeneity in child poverty outcomes, something that must be regarded as quite substantial and that corresponds with our expectation (H7).

In order to test the significance of social transfers, we control for GDP per capita in Model C. We find that generosity and categorical and income targeting are still relevant aspects of social transfers regarding child poverty risk, as they remain statistically significant after controlling for contextual living standard effects. This corroborates our fourth hypothesis (H4) regarding the robustness of the results. We also observe that the GDP per capita of the country where the child is living is not statistically significant, consistent with the results of Chzhen and Bradshaw (2012).

Model D provides a demanding test by adding the effect of the labour market in the risk of child poverty. Again, controlling for labour market effects does not alter our findings concerning social transfers. Our indicators of social transfers show, therefore, a high robustness to their effects on the risk of child poverty, thus supporting our fifth hypothesis (H5) regarding the robustness of findings. The results also indicate that there exists a statistically significant effect of both the employment rate and the in-work poverty rate on the child's likelihood of being poor, with each variable going in the expected direction. The effect of the in-work poverty rate (child's odds of being poor significantly increase by 5.6 per cent for each 1-unit increase in the working poor rate) is higher than the effect of the employment rate (the odds of being poor significantly decrease by 2.4 per cent for each 1-unit increase). This shows that the level of integration in the labour market is important, but also the quality of this integration as measured through the capacity to avoid poverty. The findings of Marx et al. (2015) support this result as they argue that the determining labour market factor which causes a child to live in poverty is mainly based on the income received by their parents from the labour market, whether it is because their parents work part time or because they earn low wages, rather than on the situation of being employed or not.

Model E tests the possible influence of multigenerational households in a country over child poverty risk and over the effect of income and categorical targeting. We observe that the higher the proportion of multigenerational households in a country, the lower the chances for a child to be poor. Moreover, the higher the categorical targeting, the lower the risk of child poverty, even though this relationship weakens in the presence of higher proportions of multigenerational households in a country. Nonetheless, the prevalence of multigenerational households exerts no influence on the effect of income targeting on the risk of child poverty. This highlights how the structure of the household constitutes a key element to take into consideration when evaluating the effect of targeted policies, in line with Diris et al. (2017).

Conclusion

This paper aims to improve our knowledge about the relationship between cross-country variations in child poverty risk and social policy in Europe by using a multilevel framework in which we jointly take into consideration individual characteristics and country-level factors. We find that the variation in child poverty is mainly due to country-level factors, particularly those related to social protection systems, and to a lesser degree to individual characteristics.

Apart from verifying that child poverty rates are significantly lower in countries where social transfer income packages are more generous, our findings highlight that countries' intent to target children matters even more than countries' intent to target lower incomes for reducing child poverty. In this sense, although income targeting towards lower incomes (pro-poor targeting) is associated with lower child poverty levels, the categorical targeting of social transfer systems towards children (pro-child targeting) is even more fundamental, also after controlling for a country's living standards, labour market performance and the structure of the households. Thus, it should be stressed that, apart from the traditional justification of compensating for the costs associated with childrearing and minimizing the welfare loss relative to childless families, pro-child targeting plays a significant role in reducing poverty, taking into account that horizontal equity and vertical equity may be interrelated. This is consistent with Verbist and Van Lancker (2016), who find that European countries succeeding in compensating a high share of the costs of childrearing for all families largely tend to succeed in reducing the poverty gap as well. When testing the possible influence of multigenerational households, we find that, beyond the level of spending and both income and categorical targeting, the way in which categorical targeting interacts with the prevalence of multigenerational households also matters for child poverty, taking into account that the structure of households is an important driver of the structure of social spending.

Our results also reveal some insights related to labour market performance and its close link with the fact of living in poverty, even though social transfers continue to be significant. The trickle-down effect from growth and jobs is frequently assumed as the main strategy against poverty, based essentially on boosting labour market participation. However, our findings reveal that a high employment rate is clearly an insufficient condition for ensuring low poverty among the working-age population. Despite the fact that people may be working, in a context of low-paid and precarious jobs, they could have a low standard of living and thus may find themselves and their children below the poverty threshold. In fact, numerous European countries have more than 20% of poor children living in households with all working-age members unemployed, with child benefit packages failing to protect low-wage earners against poverty (Van Mechelen and Bradshaw, 2013). Thus, it seems evident that means-tested benefits should not be exclusively aimed at people not in work, but also at those in work in low-paid jobs.

Finally, concerning individual factors, we should specially stress the relevance of supporting jobless households, immigrant families, young parent households and single-parent families by means of specific political measures, as these groups are more socioeconomically vulnerable and exposed to a higher risk of child poverty. Nevertheless, this should be considered with due

caution as political measures with regard to child poverty that are successful in one country are not necessarily as successful in another, even if those countries appear to be relatively similar in terms of their institutional environment (see Salanauskaite and Verbist, 2013). Therefore, any policy recommendation should leave policy-makers sufficient room to manoeuvre in order to adapt such recommendations to the specific circumstances of each context.

Notes

1 To avoid methodological problems arising from the fact that children living in the same household are not statistically independent observations, we switch from the individual to the household level for the regression analyses.

2 Disposable household income is defined as the sum, for all household members, of gross personal income components plus gross income components at the household level minus regular taxes on wealth and income, social insurance contributions and regular inter-household transfers paid. Income data correspond to the year prior to the survey for all countries except the UK and Ireland.

3 A value of 1 to the first adult in the household, 0.5 to each remaining adult and 0.3 to each member younger than 14.

4 Social transfers cover unemployment benefits, pensions, sickness benefits, disability benefits, education-related allowances, family- or child-related allowances, housing allowances and other social assistance benefits not classified elsewhere. They do not capture the impact of the tax system. We control for the rate of employment in the country to overcome the possible effect of the business cycle on the amount of social transfers.

5 It should be remembered that social transfers include unemployment benefits, so they may appear to be most effective in countries where a larger share of parents is unemployed.

6 The definitions of some concepts are included in the Appendix.

7 Family/children benefits provided through the fiscal system are not taken into account in the data.

8 Regarding the exchangeability assumption required when treating cluster effects as random, we can assume it is satisfied as we include country-specific covariates (Rabe-Hesketh and Skrondal, 2012, p. 96).

9 According to Bryan and Jenkins (2015), a minimum of 30 countries is necessary for non-linear multilevel models in order to obtain reliable results in relation to the contribution of the country effect. We fulfil this requirement.

10 We have tested the convenience of using a multilevel model that captures the country effects on child poverty through likelihood ratio tests for all models.

11 This non-significant effect is net of other characteristics. In sensitivity analyses, we estimated a reduced form model and found that the odds of being poor were significantly greater for children living with parents with bad or very bad health. Nonetheless, perhaps unsurprisingly, higher poverty among those suffering from health problems can be accounted for by other variables introduced in the model, such as labour status or age of parents.

12 We have analysed the effect of categorical and income targeting separately and conclude that when only categorical targeting is introduced, the remaining variation in the risk of child poverty between countries is lower than when only income targeting is introduced. Therefore, categorical targeting not only contributes more to the reduction of child poverty risk, but also contributes more to the reduction in the variation in the risk of child poverty between countries.

References

Atkinson, A.B. (1998), *Poverty in Europe*, Jrjo Jahnsson Lectures: Wiley.

Atkinson, B.A. and Marlier, E. (2010), 'Income and living conditions in Europe', Luxembourg: Eurostat.

Bäckman, O. (2009), 'Institutions, structures and poverty - A comparative study of 16 countries, 1980-2000', *European Sociological Review*, 25:2, 251-264.

Bäckman, O. and Ferrarini, T. (2010), 'Combating child poverty? A multilevel assessment of family policy institutions and child poverty in 21 old and new welfare states', *Journal of Social Policy* 39:2, 275-296.

Besley, T., (1990), 'Means testing versus universal provision in poverty alleviation programmes', *Economica* 57, 119-129.

Bradbury, B. and Jäntti, M. (2001), 'Child poverty across industrialized countries: Evidence from the Luxembourg Income Study', in K. Vleminckx and T.M. Smeeding (eds.), *Child well-being, Child Poverty, and Child Policy in Modern Nations*(Chapter 1), Bristol: The Policy Press.

Bradshaw J., Chzhen Y. (2015), 'The Outcomes of the Crisis for Pensioners and Children', *Belgian Journal of Social Security/Belgisch Tijdschrift voor Sociale Zekerheid*, 1: 39–50.

Bradshaw, J. (2012), 'The case for family benefits', *Children Youth Services Review*, 34:3, 590-596.

Bradshaw, J. and Huby, M. (2014), 'Decomposing Child Poverty Reduction', *European Journal of Social Security*, 6:1, 26-50.

Brady, D. (2006), 'Structural theory and relative poverty in rich Western democracies, 1969-2000', *Research in Social Stratification and Mobility,* 24:2, 153-175.

Brady, D. and Bostic, A. (2015), 'Paradoxes of Social Policy Welfare Transfers, Relative Poverty, and Redistribution Preferences', *American Sociological Review,* 80:2, 268-98.

Brady, D., Fullerton, A. and Moren Cross, J. (2009), 'Putting poverty in political context: A multi-level analysis of adults poverty across 18 affluent democracies', *Social Forces* 88:1, 271-299.

Bryan, M.L. and Jenkins, S.P. (2015), 'Multilevel modelling of country effects: a cautionary tale', *European Sociological Review* 32:1, 3-22.

Burrows, R. (2003), *Poverty and home ownership in contemporary Britain*, Bristol: The Policy Press.

Cantillon, B, Marchal, S. and Luigjes, C. (2015), 'Decent Incomes for the Poor: Which Role for Europe?', *Journal of Common Market Studies*, 55:2, 240-256.

Cantillon, B. (2009),'The Poverty Effects of Social Protection in Europe: EU Enlargement and its Lessons for Developing Countries', in P. Townsend (ed.), *Building Decent Societies: Rethinking the Role of Social Security in Development*, Basingstoke: Palgrave Macmillan.

Cantillon, B. (2011) 'The Paradox of the Social Investment State: Growth, Employment, and Poverty in the Lisbon Era', *Journal of European Social Policy*, 21:5, 432-449.

Chen, W.H. and Corak, M. (2008) 'Child poverty and changes in child poverty', *Demography* 45:3, 537-553.

Chzhen, Y. (2014), *Child poverty and material deprivation in the European Union during the Great Recession*, Innocenti Working Paper (2014-06), UNICEF Office of Research: Florence.

Chzhen, Y. (2016), 'Unemployment, social protection spending and child poverty in the European Union during the Great Recession', *Journal of European Social Policy, 27:2, 123-137.*

Chzhen, Y. and Bradshaw, J. (2012), 'Lone parents, poverty, and policy in the European Union', *Journal of European Social Policy*, 22:5, 487-506.

Corak, M. (2006), 'Do poor children become poor adults? Lessons for public policy from a cross country comparison of generational earnings mobility', *Research on Economic Inequality* 13, 143-188.

Diris, R. Vandenbroucke, F. and Verbist, G. (2017), 'The impact of pensions, transfers and taxes on child poverty in Europe: the role of size, pro-poorness and child orientation', *Socio- Economic Review*, 15:1, 1-31.

Duflo, E. (2000), 'Child Health and Household Resources in South Africa', American Economic Review, 90, 393–398.

Eardley, T., Bradshaw, J., Ditch, J., Gough, I. and Whiteford, P. (1996), *Social Assistance in OECD Countries: Synthesis Report*, Department of Social Security Research Report 46, London: HMSO.

Engster, D. (2012), 'Child poverty and family policies across eighteen wealthy Western democracies', *Journal of Children and Poverty*, 18:2, 121-139.

Eurostat (2013), *Eurostat regional yearbook 2013*, Luxembourg: Eurostat.

Eurostat, European Commission Eurostat database: Available from <http://ec.europa.eu/eurostat/data/database> (accessed April 2017).

EU-SILC LONGITUDINAL UDB (2012) – version 3 of August 2015.

Ferrarini, T. (2006), *Families, states and labour markets: Institutions, causes and consequences of family policy in post-war welfare states*, Cheltenham: Edward Elgar Publishing.

Gornick, J.C. and Jäntti, M. (2012), 'Child poverty in cross-national perspective: Lessons from the Luxembourg Income Study', *Children and Youth Services Review*, 34:3, 558-568.

Hamoudi, A. and Thomas D. (2005), 'Pension Income and the Well-being of Children and Grandchildren: New Evidence from South Africa' California Center for Population Research, 043-05.

Kahn, A.J., Kamerman, S.B. (1975), *Not for the poor alone: European social services*, Temple University Press, Philadelphia.

Kangas, O. and Palme, J. (2000), 'Does social policy matter? Poverty cycles in OECD countries', *International Journal of Health* Services 30:2, 335-352.

Kenworthy, L. (2011), *Progress for the Poor*, Oxford: Oxford University Press.

Korpi, W. and J. Palme (1998), 'The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries', *American Sociological Review*, 63:5, 661-687.

Marx, I. Vanhille, J. and Verbist, G. (2012), 'Combating in-work poverty in continental Europe: An investigation using Belgian case', *Journal of Social Policy*, 41:1, 19-41.

Marx, I., Nolan, B. and Olivera, J. (2015) 'The Welfare State and Anti-Poverty Policy in Rich Countries', in A.B. Atkinson and F. Bourguignon (eds.), *Handbook of Income Distribution* (Chapter 23). Amsterdam: North Holland.

Marx, I., Salanauskaite, L. and Verbist, G. (2016), 'For the Poor, but Not Only the Poor: On Optimal Pro-Poorness in Redistributive Policies', *Social Forces*, 95:1, 1-24.

Matsaganis, M., O Donoghue, C., Levy, H., Coromaldi, M., Mercader-Prats, M., Rodrigues, C.F., and Tsakloglou, P. (2006), 'Reforming family transfers in southern Europe: is there a role for universal child benefits?', *Social Policy and Society*, 5:2, 189-197.

Misra, J., Budig, M. and Moller, S. (2007), 'Reconciliation Policies and the Effects of Motherhood on Employment, Earnings, and Poverty', *Journal of Comparative Policy Analysis* 9:2, 135-155.

Nelson, K. (2007), *Introducing SaMip: the social assistance and minimum income protection interim dataset*, Scandinavian Working Papers in Economics 11/2007. Stockholm: Swedish Institute for Social Research.

Nelson, K. (2010), 'Social assistance and minimum income benefits in old and new EU democracies', *International Journal of Social Welfare* 19:4, 367–378.

Notten, G. and Gassmann, F.(2008), 'Size matters: targeting efficiency and poverty reduction effects of means-tested and universal child benefits in Russia', *Journal European Social Policy* 18:3, 260–274.

Orloff, A.S. (1993), 'Gender and the social rights of citizenship: the comparative analysis of gender relations and welfare states', *American Sociological Review*, 58:3, 303-328.

Rabe-hesketh, S. and Skrondal, A. (2012), *Multilevel and longitudinal modelling using Stata*, in Stata Press books. Vol I: Continuous Responses, 3rd edition, College Station, TX: Stata Press.

Rainwater, L. and Smeeding, T. (2003), *Poor kids in a rich country: America's children in comparative perspective*, New York: Russell Sage.

Salanauskaite, L. and Verbist, G. (2013), 'Is the Neighbour's Grass Greener? Comparing Family Support in Lithuania and Four Other New Member States', *Journal of European Social Policy*, 23, 315–331.

Scott, K. (2008), 'Growing up in North America: The economic well-being of children in Canada, the United States, and Mexico', Working paper 482, Luxembourg: Luxembourg Income Study.

Skinner, C., Meyer, D., Cook K., and Fletcher, M. (2017), 'Child maitenance and social security interactions: the poverty reduction effects in model lone parent families across four countries', Journal of Social Policy, 46:3, 495-516.

Skocpol, T., (1991), *Targeting within Universalism: politically viable policies to combat poverty in the United States*, in C. Jencksand P.E. Peterson (eds.), *The Urban Underclass. The Brookings Institution*, Washington, DC.

Social Protection Committee (2008), 'Child Poverty and Well-Being in the EU: Current status and way forward', Luxembourg: Office for Official Publications of the European Communities.

Strelitz, J. and Lister, R. (2008), 'Why money matters: Family income, poverty and children's lives'. London: Save the Children.

Tárki (2010), 'Child Poverty and Child Well-being in the European Union'. Budapest: Tárki Social Research Institute.

Tárki (2011), 'Child well-being in the European Union: Better monitoring instruments for better policies'. Budapest: Tárki Social Research Institute.

Valletta, R. (2006), 'The ins and outs of poverty in advanced economies: poverty dynamics in Canada, Germany, Great Britain, and the United States', *Review of Income and Wealth*, 52:2, 261-84.

Van Mechelen, N. and Bradshaw, J. (2013), 'Child Poverty as a Government Priority: Child Benefit Packages for Working Families, 1992-2009', in I. Marx and K. Nelson (eds.) *Minimum Income Protection in Flux* (Chapter 4). Basingstoke: Palgrave Macmillan.

Van Mechelen, N., Marchal, S., Goedemé, T., Marx, I. and Cantillon, B. (2011), 'The CSB-Minimum Income Protection Indicators (MIPI) Dataset', CSB Working Paper 11/5. Antwerp: University of Antwerp.

Van Oorschot, W. (2002), 'Targeting Welfare: on the Functions and Dysfunctions of Means-Testing in Social Policy' in P. Townsend and D. Gordon (eds) World Poverty: New Policies to Defeat an Old Enemy, Bristol: The Policy Press.

Verbist, G. and Van Lancker, W. (2016), 'Horizontal and Vertical Equity Objectives of Child Benefit Systems: An Empirical Assessment for European Countries' *Social Indicators Research* 128: 1299-1318.

Whiteford, P. and Adema, W. (2007), 'What works best in reducing child poverty: A benefit or work strategy?', OECD Social, Employment and Migration Working Papers 51. Paris: OECD Publishing.

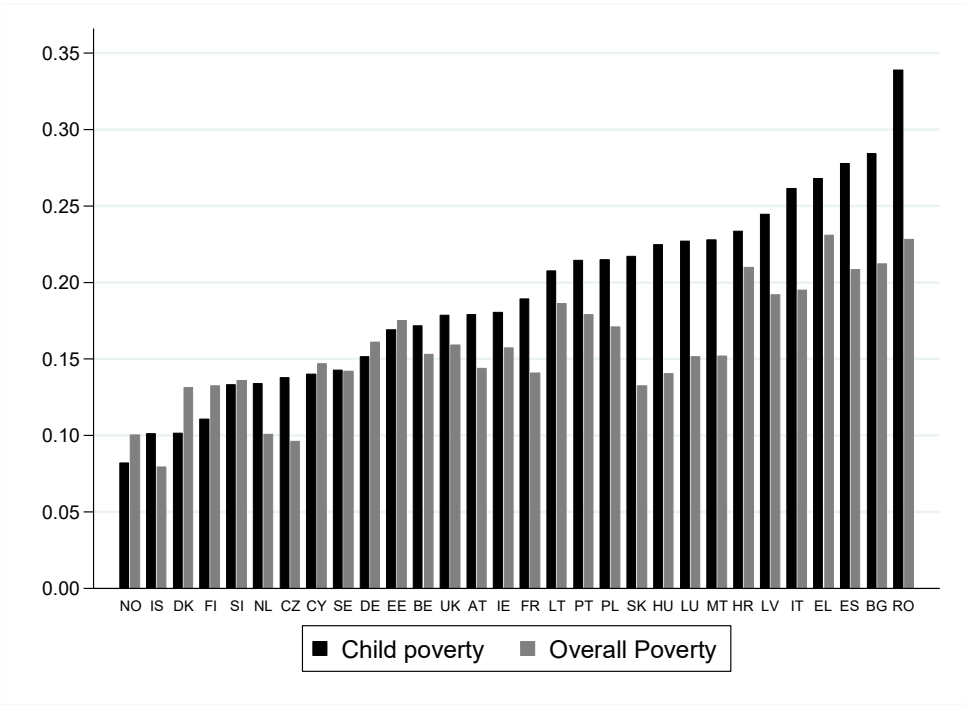

Figure 1. Child poverty rates

Source: EU-SILC (cross-sectional version 2012-3). Sorted by child poverty rate.
Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.

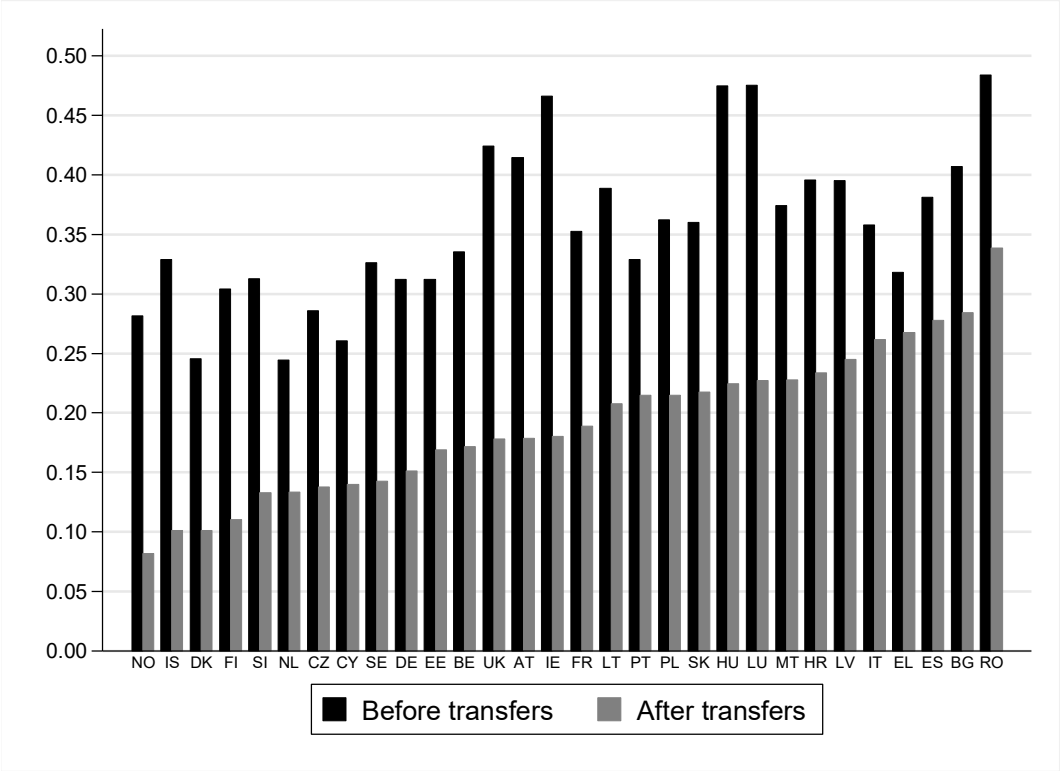

Figure 2. Child poverty rates before and after transfers

Source: EU-SILC (cross-sectional version 2012-3). Sorted by child poverty rate after transfers

TABLE 1. Odds ratio of child poverty (2012)

	Model A	Model B	Model C	Model D	Model E
Micro-variables					
lone-parent	1.200*	1.203*	1.201*	1.213*	1.205*
	[0.125]	[0.125]	[0.125]	[0.128]	[0.125]
multiunit	0.589***	0.587***	0.586***	0.589***	0.583***
	[0.074]	[0.074]	[0.074]	[0.075]	[0.073]
jobless	3.730***	3.719***	3.714***	3.700***	3.710***
	[0.460]	[0.457]	[0.457]	[0.459]	[0.456]
Nch_2	1.287***	1.284***	1.283***	1.286***	1.284***
	[0.102]	[0.102]	[0.102]	[0.102]	[0.102]
Nch_3_5	1.334***	1.333***	1.332***	1.333***	1.332***
	[0.078]	[0.078]	[0.078]	[0.078]	[0.078]
Nch_6_11	1.310***	1.310***	1.309***	1.310***	1.309***
	[0.054]	[0.054]	[0.054]	[0.054]	[0.054]
Nch_12_17	1.560***	1.561***	1.561***	1.560***	1.559***
	[0.050]	[0.050]	[0.050]	[0.050]	[0.050]
owner	0.992	0.981	0.978	0.975	0.977
	[0.051]	[0.050]	[0.050]	[0.049]	[0.050]
thinly populated	1.423***	1.426***	1.423***	1.421***	1.429***
	[0.111]	[0.108]	[0.108]	[0.106]	[0.109]
young father	1.203*	1.202*	1.199*	1.207*	1.203*
	[0.120]	[0.120]	[0.120]	[0.119]	[0.120]
old father	0.421***	0.421***	0.421***	0.419***	0.422***
	[0.073]	[0.072]	[0.072]	[0.072]	[0.072]
secondary father	0.842**	0.841**	0.839**	0.846**	0.840**
	[0.068]	[0.067]	[0.067]	[0.067]	[0.067]
tertiary father	0.375***	0.376***	0.375***	0.378***	0.376***
	[0.041]	[0.041]	[0.041]	[0.041]	[0.041]
work father	0.277***	0.277***	0.278***	0.278***	0.278***
	[0.016]	[0.016]	[0.016]	[0.016]	[0.016]
health father	0.933	0.932	0.932	0.931	0.931
	[0.113]	[0.113]	[0.113]	[0.112]	[0.112]
EU immigrant father	1.626**	1.638**	1.656**	1.613**	1.640**
	[0.347]	[0.347]	[0.353]	[0.346]	[0.347]
non-EU immigrant father	2.177***	2.183***	2.187***	2.172***	2.181***
	[0.244]	[0.247]	[0.248]	[0.244]	[0.245]
young mother	1.627***	1.623***	1.622***	1.620***	1.621***
	[0.122]	[0.121]	[0.121]	[0.121]	[0.121]
old mother	0.576***	0.575***	0.575***	0.573***	0.578***
	[0.052]	[0.052]	[0.052]	[0.052]	[0.052]
secondary mother	0.642***	0.641***	0.639***	0.646***	0.641***
	[0.064]	[0.064]	[0.064]	[0.064]	[0.063]
tertiary mother	0.298***	0.297***	0.296***	0.301***	0.298***
	[0.032]	[0.032]	[0.032]	[0.032]	[0.032]
work mother	0.308***	0.306***	0.306***	0.308***	0.307***
	[0.030]	[0.030]	[0.030]	[0.030]	[0.030]
health mother	0.907	0.907	0.905	0.907	0.905

	[0.088]	[0.088]	[0.088]	[0.088]	[0.088]
EU immigrant mother	1.573***	1.578***	1.593***	1.549***	1.575***
	[0.265]	[0.268]	[0.270]	[0.257]	[0.268]
non-EU immigrant mother	1.780***	1.780***	1.786***	1.774***	1.779***
	[0.121]	[0.121]	[0.122]	[0.120]	[0.121]
Macro-variables					
generosity		0.947***	0.961***	0.970***	0.974**
		[0.011]	[0.013]	[0.009]	[0.012]
categorical targeting		0.938***	0.960*	0.970**	0.905**
		[0.017]	[0.021]	[0.012]	[0.036]
income targeting		0.982***	0.980***	0.983***	0.983*
		[0.006]	[0.006]	[0.005]	[0.010]
GDP			0.997		
			[0.002]		
employment				0.976***	
				[0.008]	
in-work poverty				1.056***	
				[0.012]	
% multigenerational households					0.862*
					[0.075]
categorical targeting * % multigenerational households					1.021**
					[0.010]
income targeting * % multigenerational households					1.005
					[0.007]
Constant	0.385***	2.935***	2.325**	4.238**	1.735
Var in intercept	0.228	0.080	0.072	0.034	0.054
VPC	0.065	0.024	0.021	0.010	0.016
Observations	66,882	66,882	66,882	66,882	66,882
Number of groups	30	30	30	30	30
Log likelihood	-10,516	-10,501	-10,500	-10,490	-10,496

Sources: EU-SILC (cross-sectional version; 2012-3), Eurostat (2011, accessed April 2017).
Standard deviations in brackets.
*** p<0.01, ** p<0.05, * p<0.1

Appendix: supplementary material

A1. Definitions

ESPROSS (European system of integrated social protection statistics) defines the following concepts:

- Social protection: encompasses all interventions from public or private bodies intended to relieve households and individuals of the burden of a defined set of risks or needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved. The list of risks or needs that may give rise to social protection is, by convention, as follows: 1. Sickness/Health care 2. Disability 3. Old age 4. Survivors 5. Family/children 6. Unemployment 7. Housing 8. Social exclusion not elsewhere classified.
- Means-tested social benefits: are social benefits that are explicitly or implicitly conditional on the beneficiary's income and/or wealth falling below a specified level.
- Family/children benefits: are in cash or kind (except health care) in connection with the costs of pregnancy, childbirth and adoption, bringing up children and caring for other family members. The Family/children includes benefits that: provide financial support to households for bringing up children; provide financial assistance to people who support relatives other than children; provide social services specifically designed to assist and protect the family, particularly children.

Note that Family/children benefits provided through the fiscal system are not taken into account in the data. For example, non-payable tax credits and higher tax free allowances provided to those with dependants may reduce taxes paid by recipients but are not taken into account in the expenditure recorded by the ESSPROS core system.

A2. Descriptive statistics

TABLE A2.1. Descriptive statistics for explanatory variables

VARIABLES	Mean	Standard Deviation
Micro determinants		
lone-parent	0.11	0.32
multiunit	0.60	0.23
Jobless	0.07	0.25
Nch_2	0.23	0.47
Nch_3_5	0.27	0.50
Nch_6_11	0.55	0.71
Nch_12_17	0.63	0.73
Owner	0.36	0.48
thinly populated	0.35	0.48
young father	0.04	0.20
old father	0.02	0.15
secondary father	0.54	0.50
tertiary father	0.24	0.43
work father	0.57	0.50
health father	0.04	0.18
EU immigrant father	0.04	0.18
non-EU immigrant father	0.06	0.23
young mother	0.09	0.28
old mother	0.03	0.18
secondary mother	0.58	0.49
tertiary mother	0.32	0.46
work mother	0.39	0.49
health mother	0.05	0.22
EU immigrant mother	0.05	0.21
non-EU immigrant mother	0.08	0.26

TABLE A2.2. Country level explanatory variables

Countries	generosity	categorical targeting	income targeting	GDP	employment	in-work poverty	% multigenerational households
AT	28.21	10.15	8.21	128	74.20	7.60	2.90
BE	28.37	7.88	5.01	120	67.30	4.20	1.10
BG	15.95	10.95	4.27	45	62.90	8.20	9.50
CH	23.03	5.99	7.17	161	81.80	7.70	0.64
CY	20.57	8.88	12.85	96	73.40	7.30	1.00
CZ	19.45	9.31	1.83	83	70.90	4.00	1.80
DE	27.34	11.17	11.91	123	76.50	7.70	0.46
DK	30.98	12.36	35.27	128	75.70	6.30	0.20
EE	15.46	12.39	0.98	71	70.60	7.90	3.20
EL	27.15	3.88	3.15	75	59.60	11.90	1.50
ES	24.87	5.51	16.18	93	62.62	10.90	3.20
FI	28.11	11.13	4.63	117	73.80	3.90	0.38
FR	30.85	7.95	11.49	108	69.20	7.60	0.54
HR	19.97	7.39	6.93	60	59.80	6.60	8.00
HU	21.50	12.68	4.66	66	60.40	6.20	4.80
IE	21.85	13.53	31.16	132	63.70	5.60	1.30
IS	23.68	11.37	25.85	114	80.60	6.40	0.81
IT	27.36	4.23	5.68	104	61.61	11.00	2.30
LT	16.18	10.37	6.02	66	66.90	9.50	4.80
LU	21.58	16.46	3.81	263	70.10	9.90	2.50
LV	15.10	7.47	4.38	57	66.30	9.30	6.80
MT	18.59	6.21	13.21	83	61.60	6.10	2.10
NL	28.17	4.03	13.21	133	76.40	5.40	0.29
NO	24.28	12.78	4.59	179	79.60	5.60	0.31
PL	18.23	7.07	3.41	65	64.50	11.10	9.20
PT	24.24	4.86	8.76	77	68.80	10.30	3.50
RO	16.24	10.47	4.83	52	63.80	19.10	8.40
SE	27.72	10.62	2.75	126	79.40	6.80	0.29
SI	24.08	8.89	8.33	83	68.40	6.00	2.40
SK	17.33	9.90	5.26	75	65.65	6.30	4.90
UK	28.88	10.66	14.45	107	74.10	9.00	0.84

Note: AT: Austria; BE: Belgium; BG: Bulgaria; CY: Cyprus; CZ: Czech Republic; DE: Germany; DK: Denmark; EE: Estonia; EL: Greece; ES: Spain; FI: Finland; FR: France; HR: Croatia; HU: Hungary; IE: Ireland; IS: Iceland; IT: Italy; LT: Lithuania; LU: Luxembourg; LV: Latvia; MT: Malta; NL: The Netherlands; NO: Norway; PL: Poland; PT: Portugal; RO: Romania; SE: Sweden; SI: Slovenia; SK: Slovakia; UK: United Kingdom.