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CHILD POVERTY IN EUROPE: METHODOLOGICAL AND POLICY ISSUES

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1. Introduction

In this paper we focus on the most recent tendencies in child poverty in the old Members States of the European Union (EU15) and on a series of methodological issues related to the measurement of child poverty. The study of income poverty is not obviously exhaustive of all the dimensions related to the social inclusion/exclusion of the children, but has the advantage of providing quantitative measures of a series of aspects of particular policy relevance.

The paper is organized in two main parts. The first one provides, as a background, an overview of recent trends and developments of child poverty in the EU15 between 1995 and 2001 based on existing official statistics. This part also investigates how child poverty relates to family structure and household composition, and to which extent poverty incidence differs across age groups. Further, some of the most recent empirical evidence on the effectiveness of social protection systems in tackling child poverty is reviewed. Finally we briefly discuss how child poverty might depend on factors influencing integration in the labour market, such as female employment and the wage distribution.

The second part of the paper tackles the same set of issues making use of EUROMOD, a static tax-benefit micro-simulation model for the EU15, which is both representative at the national level and comparable across countries, and enables to simulate great part of the 2001 tax-benefit system. In this section, we focus in more details on the methodology of child poverty measurement and on the policy implications of the main findings.

The questions addressed by the paper can be summarized as follows: what is the ranking among EU15 countries in terms of child poverty? Do high child poverty rates in some countries merely reflect high overall poverty? Is the incidence of child poverty different across household types? Are child poverty statistics sensitive to the choice of the relative poverty line, of the poverty index and to different specifications of the equivalence scale? Which is the impact of each national tax-benefit system in terms of poverty reduction or target efficiency with respect to both children and total population? Wherever possible, the answers are provided by reconciling the empirical evidence reviewed in the first part with the results obtained by EUROMOD.

2. Recent trends in child poverty rates: the Eurostat evidence

Research on child poverty has burgeoned during the last 15 years, spurred by the dramatic increase in child poverty registered in the Anglo-Saxon countries and in some Southern European countries during the '80s. The phenomenon has been investigated from an international perspective in a number of studies: Vleminckx and Smeeding (2001), Gordon and Townsend (2000) and Cornia and Danziger (1997) provide both cross sectional and longitudinal evidence on child poverty and well being in industrialised countries, Bradbury, Jenkins and Micklewright (2001) focus on the determinants of dynamics in and out of child poverty, while Micklewright and Stewart (2000 and 2001) and Förster and Toth (2001) examine the phenomenon in Eastern European countries.

This section offers an overview of recent child poverty[1] trends in the EU15 based on the EUROSTAT statistical database on "Population and Social Conditions" (EUROSTAT, 2004). The advantage of such database consists mainly in the possibility of drawing cross-country consistent and comparable calculations of national specific poverty rates between the old member states.

Figure 1 shows how current levels of child poverty relate to poverty in the total population in the old EU member states, ranked in ascending order according to child poverty rates, while Figure 2 focuses on trends. For a large majority of EU15 countries, child poverty rates are higher than poverty rates for the total population, and their dispersion across countries is larger than the dispersion exhibited by total poverty rates. Such aspects are in line with the main findings already present in the literature. Interestingly, child poverty rates are lower (or not higher) than total poverty rates in countries where overall poverty is less widespread with respect to EU average (namely Denmark, Finland and Sweden), and where, traditionally, social welfare policies have been strongly targeted towards family and children-related benefits (Appendix, Figure 8).

Conversely, the highest child poverty rates are registered in the countries with above than EU average total poverty. The latter group of countries, though, is more heterogeneous, since it includes both Southern European (Italy, Spain and Portugal) and Anglo-Saxon countries (UK and Ireland) with radically different welfare systems.

Figure 2 shows in detail recent developments in child poverty rates by gender. The panels are split into three areas, corresponding roughly to poverty rates rankings at the beginning of the period considered (1995): above 20%, between 15 and 20%, and below 15%, from left to right. The figures depict a lack of significant gender differences and an overall tendency towards persistence shared across countries, with the exception of a declining trend observed for both genders in Germany,

[1] The poverty statistics presented in this paragraph are based on the definition of poverty line equal to 60% of the median equivalised household income across the national population (with OECD modified equivalence scale). A standard and basic measure of child poverty is adopted, defined as the number of children in poor households as a percentage of the total population: the "children at risk of poverty" rate (also known as headcount ratio).

Austria and Belgium, a marked increase in male child poverty in the Netherlands and a slight increasing trend registered for both sexes in France and Luxembourg.

A reason for concern coming from these figures can be the high level of persistence of child poverty and the lack of convergence to the EU 15 mean for countries with particularly high child poverty rates (in particular Portugal, Spain, Italy and Ireland), except for the slowly declining child poverty rate in Greece and for the encouraging (albeit far from reaching the targets set by the Blair government in the late 90's) downturn exhibited by the UK after 1999.

Children and poverty by household typology

The existing literature quoted above has pointed out that household size, household composition and number of dependent children within household matter to assess poverty outcomes. We will not explore at this point of the paper the methodological issues related to the sensitivity of poverty measure to the choice of different equivalence scales and different poverty lines, but, for sake of conciseness, we will rather focus on the comparison of poverty across household types holding the same definitions of equivalence scale and poverty line.

Figure 3a to figure 3d in the appendix compare poverty incidence by different typologies of households with children in the EU15 and relate them to total poverty in the population. In particular, on the horizontal axis the total poverty rate is reported, while on the vertical axis the poverty rates are plotted for four different family types: two adults with one, two and three or more dependent children and single mothers with dependent children, respectively. The definition of child used here is again that of individuals aged between 0 and 15. The charts should be interpreted as follows (the same holds for figures 4a and 4b): points above the diagonal 45 degrees line indicate for which countries the different household typologies individuated by the vertical axis are faring worse with respect to the national average; for countries aligning (or closer) to the 45 degrees diagonal, household specific patterns are not significantly different from the aggregate picture, while countries laying below the diagonal reveal that specific household types experience poverty less painfully than what is portrayed by figures on the total population.

The charts help identifying two quite different patterns already underlined by the empirical literature on single countries showing that household poverty increases with the number of children. Single mothers with dependent children and numerous families with two adults and three or more dependent children are subject to higher than average national poverty rates, and the higher the national poverty rate, the higher this gap. The figures relative to Ireland and Portugal are particularly striking. On the other hand, households formed by two adults with one or two dependent children appear to be "less than average" at risk of poverty, but the risk of poverty increases noticeably from one-child to two-children families, especially for countries with high overall poverty rates.

Children and other age groups at risk of poverty

Figures 4a and 4b in the Appendix relate child poverty with poverty incidence in two other population subgroups normally viewed at high risk of social exclusion: the old aged 65 or higher and the youth aged between 16 to 24. From the comparison of the two graphs some interesting findings emerge. First of all, children do not experience poverty risk with the same propensity than other age groups across country. Figure 4a suggests that in 6 out of 15 EU old member states the incidence of poverty is higher for the old than for children, for 6 countries the differences in poverty rates between the two age groups are negligible, and only for 3 countries (Italy, Luxembourg and the Netherlands) poverty is more severe with children than above 65 elderly.

Figure 4b displays a rather different picture, showing that both "young" and "old" children fare roughly similarly in EU 15 countries, with the noticeable exception of the Scandinavian countries where children in working age are more at risk than those below working age.

These findings have important policy implications, and suggest, in particular, the need for an approach based on policy complementarities and coordination according to the specific targeted population sub-groups.

Child poverty and labor market integration

Parental unemployment, low labour market participation and low parental earnings are among the major causes of child poverty found by the empirical literature (Oxley *et al.*, 2001, Chen and Corak, 2005, Förster and Mira D'Ercole, 2005). Figure 5 and figure 6 in the Appendix relate child poverty incidence with some key indicators of labour market performance, namely the female employment rate and the share of low-paid workers in total employment (the data source is the OECD report by Mira D'Ercole and Salvini, 2003). The graphs show that, in a cross-section of EU15 countries, child poverty is positively correlated with low pay incidence and negatively correlated with female employment. Though, far from providing a rigorous causal explanation, which would have required an econometric specification, the charts offer a realistic snapshot of empirical regularities which policy makers should be aware of in the process of decision making and policy design.

Child Poverty and Family benefits

The work by Kamerman *et. a.l* (2003) provides an exhaustive review of the most recent and relevant empirical studies on the effectiveness of social and family policies in reducing child poverty in OECD countries. Immervoll *et al.* (2001), Matsaganis *et al.* (2004), and, more recently, Corak *et. al*. (2005), have analyzed the effect of family transfers on child poverty on the basis of the microsimulation model EUROMOD. Some key interesting findings stemming from the first two EUROMOD studies are the following: too many poor family with children are ineligible for income support or receive low benefits in Southern Europe (Spain Italy, Greece, Portugal), therefore family

benefits have little impact on child poverty; in countries with generous family benefits, such as Denmark and Luxembourg, incomes seem high enough to prevent child poverty even in the absence of family-related transfers; family benefits seem to contribute substantially to the reduction of child poverty instead in Austria, Belgium, France, the Netherlands and the UK. Corak *et. al.* (2005) among other findings, have shown that in countries with the lowest child poverty rates, children benefit considerably not only from targeted schemes, but also from public transfers not necessarily directed to them (e.g. directed to their parents). As far as the UK is concerned, instead, microsimulation studies carried out by Piachaud and Sutherland (2001a, 2001b) revealed that the overall effects of the tax benefit system on alleviating child poverty have been more relevant than those of active labour market policies or in-work employment programmes targeted to selected social groups.

Figure 8 shows the incidence of family and children-related benefits on the total social benefits expenditure in EU15, while figure 7 relates family transfers to child poverty rates. The share of family benefits in the overall social protection expenditure is quite heterogeneous across countries, and figure 7 portrays its negative correlation with child poverty rates. Ireland can be viewed as an outlier, since higher than average expenditure levels are associated to high child poverty rates. This fact, however, can be subject to a double interpretation: either high expenditure reveals a policy reaction to high poverty rates, or family benefits are not effective in reducing poverty.

3. Child poverty in EU15: the evidence by EUROMOD

This section of the paper examines in more details some methodological and policy issues related to child poverty. Our exercise consists in a sensitivity analysis of child poverty statistics with respect to the choice of the relative poverty line, the poverty measure, and the equivalence scale. The analysis is carried out by using an integrated tax-benefit micro-simulation model, EUROMOD, which is representative at the national level, comparable across countries, and able to simulate great part of the 2001 tax-benefit system of the old members of the European Union (EU15). The definition of children adopted hereby follows, for purposes of comparability, the approach used in other existing studies based on EUROMOD or in some past EUROSTAT publications such as Mejer, Siermann (2000), but differs from the definition followed in the previous section: children, therefore, are defined as individuals aged below 18 instead of below 16.

Distribution of Children by household type

The EU15 countries present a quite homogeneous share of children in total population, ranging from 20 to 24%. The only exceptions are Germany and Italy, on the one hand, and Ireland, on the other, whose populations are respectively older and younger than the EU15 average: the percentage of children in Germany and Italy are around 18-19%, while the corresponding figure in Ireland is 33% (see table 1).

Despite this homogeneity across country, both the household composition and the distribution of children among household types in each country display significant differences. In almost all countries considered, most of children live in couples with at least 2 children. A partially different picture emerges only in Portugal, Spain and Greece, where children living in couples with at least 3 children are only 12-13% of the total children population, against shares well above 20% elsewhere. With this respect, Ireland represents an outlier, since almost 40% of population aged less than 18 live in couples with at least 3 children.

The share of children living in lone-parent households is considerably high in Sweden, Denmark, Finland, Germany and UK (10-20%) while in the remaining countries the average is below 10%. Another peculiarity emerging from cross-country comparison, is the relevant percentage of children living with both parents and other young adults (children aged above 17) in Ireland, Spain, Portugal and Italy, ranging between 14 and 17%, whereas the corresponding figures in the other countries are below 10%.

Child poverty by household type

The empirical evidence obtained with EUROMOD is in line with the findings coming from different sources (as the database used in the previous section): the Anglo-Saxon and the South European countries show the highest child poverty rates in Europe (EU15), with values well above 20%: the headcount ratio amounts up to 21-22% in Spain and Portugal, to 23-24% in Italy and Ireland, and to 29% in the UK (see table 2).

The international comparison allows selecting three different cluster of countries in EU15 by child poverty level: a first, just mentioned, group of nations with a child poverty above 20%, an intermediate set of countries, given by the Continental Europe with values ranging from 11-12% (The Netherlands and France) to 20% (Luxembourg, Greece, Belgium and Austria), and finally a third cluster of countries, the Scandinavian ones plus Germany, whose child poverty rate is lower than 10%.

Child poverty is higher than total poverty in almost half of the EU15: this holds for Austria, Belgium, Ireland, Italy, Luxembourg, Spain and the United Kingdom. On the contrary, child poverty is lower than total poverty in Denmark, Finland, Germany, Greece and Sweden, while significant differences between the two figures do not appear to emerge in France, the Netherlands and Portugal.

The high child poverty rates of the Anglo-Saxon and the South European countries seem to stem from a considerable high overall poverty rate. In fact, the overall poverty rate in the United Kingdom, Ireland, Italy, Spain and Portugal is around 18-22%, against values which amount on average to 8-14% elsewhere. There is one notable exception, Austria, where the relatively high child poverty rate (19,3%) is not associated with a comparable poverty rate for the population as a

whole (12,9%). The case of Greece appears quite peculiar too, even though for opposite reasons. Along with Portugal, Greece presents the highest (21,8%) overall poverty in EU15, while its child poverty rate is relatively small (16,7%), if compared with that one shown by the United Kingdom, Ireland or the other Southern European countries.

All countries, regardless the level of their child poverty rate, appear to share some common features. In particular, the household types which present a particularly high child poverty rate are couples with at least three children and lone parents. A slightly different picture emerges in the case of Italy, where the poverty rate for the household typology "lone parent with children" is traditionally not too different from the total child poverty rate (in this case, both around 23%).
Similarly to the EUROSTAT evidence previously reviewed, it is worthwhile to notice that in almost all countries (13 out of 15) child poverty among couples with one or two children is less than the child poverty rate calculated on total population of children. The presence of children within the household is a risk factor of poverty only as much as the number of children is relatively high (three or more).

Share of poor children by household type

The composition of the population of poor children among different household types shows some notable differences across countries. Among the countries with the highest child poverty rate (United Kingdom, Ireland, Italy, Spain, Portugal), the composition of the population of poor children by household type shows some remarkable cross-country differences: in the UK the relative majority (almost one third) of poor children appear to live with lone parents, while the corresponding percentage in the other countries is by far lower: 18,4% in Ireland, 12,2% in Portugal, 5,1% in Spain and only 2,7% in Italy. The highest percentage of poor children in the south European countries seems rather concentrated among the couples with 2 children: 23% in Portugal, around 31-33% in Spain and Italy. A different picture is shown by Ireland, where the absolute majority of poor children (51%) lives in couples with at least 3 children (see table 3).

The picture shown by the countries with the lowest child poverty rate, the Scandinavian ones, is more uniform. Most of poor children live in couples with at least three children: 31% in Denmark, 34% in Finland and 43% in Sweden. The countries with an intermediate child poverty rate (the Continental European countries) display common patterns with this respect. Some notable exceptions are represented by Germany and Greece. Similarly to the United Kingdom, Germany shows a strong concentration (36%) of poor children in the household type represented by lone parent, while in Greece more than 40% of poor children seem to be concentrated among couples with 2 children.

The empirical evidence also shows some demographic features of child poverty which are typical of the southern European countries. Around 17-20% of poor children in Italy and Spain live with their parents and at least one "young adult" (that is a child aged more than 18 years), while in all other

EU15 countries the corresponding percentage is considerably lower. Around one fourth (22-25%) of poor children in Portugal and Greece appear to live in household types labelled as "other", which typically include households with more than two generations (children, parents and grandparents). Apart from Portugal, Spain, Italy and Spain, all other EU15 countries show a corresponding share of poor children living within this household type lower than 10%.

Poverty rate and child poverty rate by age classes

Children run a higher poverty risk than that one of the elders in most (8 out of 15) of the old EU members. This phenomenon is particularly evident in Austria, Belgium, Italy and the United Kingdom. Only in Denmark, Finland, Germany, Greece, Ireland and Portugal people aged more than 65 years are poorer than children (0-17 years), while in France the two figures appear substantially the same (see table 4).

The shape of the poverty rate profile by age classes is not uniform across countries. The majority of them shows a U-shape, two countries, the Netherlands and Sweden, present an inverse U-shape, while in Denmark and France the poverty rates by age classes are first increasing and then decreasing.

Child poverty among youngest children (0-11 years) is systematically higher than that one among children of higher age (12-17). Portugal is the only country with an increasing poverty rate with respect to the age of children (see table 5).

Sensitivity of child poverty to different poverty lines, poverty measures and equivalence scales

The consolidated methodology in international (child) poverty research suggests performing a number of sensitivity checks of poverty statistics with respect to the level of the relative poverty threshold and the poverty measure used. This approach is also coherent with the implicit prescriptions contained in the set of the indicators for social inclusion in the European Union adopted after the Laeken European Council (Atkinson *et al*., 2004). A discussion of some methodological aspects of child poverty measurement in OECD countries can be also found in Corak (2005).

Child poverty statistics in EU15 appear sensitive to different relative poverty lines (different cut-off percentages). In fact, the ranking of the baseline, where the poverty threshold is given by the 60% of national median equivalent disposable income, does change when the poverty threshold is shifted downwards or upwards with respect to the baseline (see tables 6a-6d). At the top of the ranking, the two countries whose position does not apparently depend too much on the level of the poverty threshold are Italy and Portugal, while this is not the case for the UK, Ireland and Spain.

Child poverty statistics also appear quite sensitive to the choice of the poverty index. The ranking across country according to the headcount ratio, is only partially confirmed after assuming as a reference index either the income gap ratio or the Foster, Greer and Thorbecke (FGT) index (see tables 7a-7c). For example, the United Kingdom, which shows the highest percentage of poor children on total population of children according to the headcount ratio, is only fifth in the ranking when the FGT index is used, or even eighth if poverty is measured by the income gap ratio. The countries for which the findings seem more robust to the choice of different poverty measures are Italy and Finland. Italy scores third, second and first, according to the headcount ratio, the income gap ratio or the FGT index, respectively, while Finland always fare among the countries with the lowest child poverty rates, regardless of the measures adopted.

The sensitivity of child poverty statistics with respect to the choice of the equivalence scale has been also examined. The results show that, as far as the child poverty incidence is concerned, the ranking of the countries is hardly affected when different equivalent scales are used (see tables 8a-8c). This confirms the findings already existing in the literature[2]. For example, the adoption of an equivalence scale given by the square root of family size does not show significant changes with respect to the baseline both on top of the ranking (apart from a switch between Italy and Ireland) and at the bottom, where the four countries having the lowest child poverty remain the same (Germany, Denmark, Finland and Sweden). Minor changes take place in the middle of the ranking, which includes continental Europe plus Greece. Similar results are obtained using the parametric equivalence scale $(\text{No. of adults} + 0.7 \times \text{No. of children})^{0.85}$. The latter definition of equivalence scale has become quite standard in the literature on poverty measurement: it is related to the works by Jenkins and Cowell (1994) and Citro and Michael (1995) and have been used recently, for instance, by Bradbury and Jäntti (2001), and Jenkins *et al.* (2001).

The absolute level of child poverty, more than the ranking across countries, appears to be sensitive to the choice of the equivalence scale. This is the case if one adopts the parametric form just mentioned, given by $(\text{No. of adults} + 0.7 \text{ No.} \times \text{of children})^{0.85}$. Using that scale makes child poverty in all EU15 countries increase, as a consequence of using a scale giving less role to the economies of scale than that one implicit in the baseline (the modified OECD equivalence scale). Countries such as UK, Ireland, Italy and Portugal show rates which are sensibly higher than before, ranging from 26% to 35%. An intermediate cluster of countries emerges, with child poverty rates around 20-24%. This group includes Luxembourg, Spain, Belgium, France and Greece. The third

[2] In particular, De Voos and Zaidi (1997) study the sensitivity of poverty statistics to the choice of the equivalence scale across 12 European countries, using three different equivalence scales: the original OECD scale, the modified OECD scale and a subjective equivalence scale. The ranking of countries in terms of poverty rates and composition of the poor population by household type is not affected by the adoption of the original versus modified OECD scale, while subjective scales lead to higher poverty rates measures, especially when breakdowns by household types are considered. Similarly, Jenkins *et al.* (2001), in their longitudinal study on child poverty in Great Britain and Germany, find out that both cross sectional and longitudinal patterns in child poverty are unaffected by choosing four different couples of values for the parameters α and β in the parametric equivalence scale: $(\text{No. of adults} + \alpha \times \text{No. of children})^{\beta}$.

cluster is formed by the Netherlands, Germany, Sweden, Finland, Denmark, which present the lowest child poverty rates. Still the poverty rates of these countries range from 10 to 18%, a considerably higher level than before, in the baseline.

Child poverty rate by labour market situation of the household

Table 9 shows child poverty rates broken down by the labour market situation of the household. The most striking figures concern Southern European Countries and Anglo-Saxon countries, where child poverty is overwhelmingly high for families experiencing unemployment or inactivity. Astonishingly, in countries like Italy, Spain, Ireland and the UK, more than 80 out 100 children are poor if at least one of the household members is unemployed. Italy, in particular, exhibits the worst performance when the prevalent economic status of the household is inactivity. Employment of household working members is confirmed as the most decisive factor for low child poverty incidence, in particular in the Nordic countries, in the Continental European countries and in the Anglo-Saxon countries, where poverty rates for children living in families with at least one member employed are lower than the overall poverty rates for the total children population.

Child poverty rate by household type and number of earners

Table 10 reports instead child poverty rates in different family types (couple or singled-parents family) grouped by number of earners. Not surprisingly, the highest child poverty rates are registered in lone-parents families with no earner, as in Spain, Greece, Ireland, UK and Portugal. In nearly all European countries (with the exception of Austria, Luxembourg, Italy, Sweden and France), in two-parents families child poverty rates drop monotonically as the number of earners grows from zero to two or more. With this respect, the most relevant reduction in child poverty rates, when shifting from zero to a positive number of income recipients within couples, occur in Ireland, Denmark, Greece, and to a lesser extent in the UK, Spain and Portugal. Ireland represents quite a polarized situation, where for both couple and lone-parent families without earners child poverty rates exceed 70%.

Child poverty and low pay

Table 11 compares the incidence of child poverty with that of low-paid workers. The correlation between the two measures obtained with EUROMOD appears lower than the one obtained in other studies using different data sources (see Mira D'Ercole and Salvini, 2003, and Peña-Casas and Latta, 2004). Such a difference might hinge mainly upon the definition adopted and should not be interpreted as a flaw of the model. According to Table 11 in fact, the incidence of low paid workers is computed on the entire pool of employed, both employee and self-employed and both full-time and part-time, based on monthly earnings, while for instance the report by Peña-Casas and Latta

(2004) based on ECHP data (considering hourly earnings and dependent employees only) show a higher incidence of low-paid workers in nearly all the countries and in particular in Ireland.

The impact of tax-benefit schemes on child poverty

This section focuses on the effectiveness of the main typologies of public family transfers in reducing child poverty and compares it to their effectiveness in reducing poverty in the total population. The transfers considered hereby include unemployment benefits, social assistance benefits, family benefits, housing benefits, and pensions (together with other contributory benefits). The assessment of target efficiency normally refers to two different concepts introduced originally by Weisbrod in the seventies: "vertical efficiency", to which extent the considered benefits target only the poor versus the non poor, as opposed to "horizontal efficiency", to which extent the benefits reach the whole poor population (Atkinson, 1995). It is a standard and consolidated approach in the literature measuring the two aspects of target efficiency throughout a set of indicators developed by Beckerman (1979), which can be easily understood with the help of the diagram reported in Figure 9.

The area (A+B+C) is the total amount of the transfer, area (A+D) represents the aggregate poverty gap, area A is the reduction in the poverty gap due to the introduction of the transfer, area B indicate the amount of expenditure which make the poor cross the poverty line, and area C captures the payment made to the non-poor population. The ratio VEE=(A+B)/(A+B+C) is the vertical expenditure efficiency and measures the share of total benefit expenditure received by the poor; PRE=A/(A+B+C) is the poverty reduction efficiency, a stricter measure of the extent to which transfers reduce the poverty gap, since it indicates the fraction of total benefit expenditure which enables individuals below the poverty line to reach the poverty line threshold, but no to cross it; the amount of benefit expenditure in excess to that strictly necessary to bring the poor at the poverty line level is defined as a "spillover index" S=B/(A+B); the fourth indicator is the poverty gap efficiency, PGE=A/(A+D), and measures to which extent the benefits expenditure received by the poor fill the resources needed to close the aggregate poverty gap. The aggregate poverty gap can be expressed as a particular case (when α=1) of the expression:

$$PG(\alpha) = \sum_{i \in Q} (z - y_i)^{\alpha}$$

where Q is the set of individuals below the poverty line, z, and y_i is the equivalised household income for individual i. If α=1, all the transfers to the individuals below the poverty line are evaluated equally; here the coefficient adopted (α=2) implies instead that public transfers to the "poorest poor" (those individuals whose income is more distant from the poverty line) are given more weight than transfers to the poor whose income is closer to the poverty line. The first three indicators can be considered measures of vertical efficiency, while the fourth is an index of horizontal efficiency.

Table 12a and 12b compare the indicators of vertical and horizontal efficiency derived for both the total and the children population. The tables underline the relative importance of each of the transfers considered to the achievement of vertical and horizontal efficiency. The figures shown can vary between a range of 0% and 100%, which correspond to the worst and best performance, respectively, in terms of target efficiency achievement.

As an illustrative example, let's consider the poverty reduction efficiency (PRE) before social assistance benefits (which means that PRE is computed before social assistance benefits are included in the disposable income but after including all the other benefits) in Finland (9.9%) and let's compare it with the figures obtained for Portugal (98%) in table 12a. What do these figures tell us? On the one hand, we can deduce that in Finland targeting is not efficient in reducing poverty in the total population without social assistance benefits, while in Portugal the other benefits in place (unemployment benefits, family benefits, housing benefits and pensions) are sufficient to target the poor very efficiently. The same argument holds for the interpretation of the effectiveness of the same type of benefits against child poverty reduction (table 12b), and the conclusions are similar, in this case, to those in the previous example.

In terms of horizontal efficiency, instead, let's consider PGE before family benefits computed on the children population in Finland (11.6%) and in Germany (91%), as shown in table 12b. These figures tell us that, in the absence of family benefits, the existent transfers are not targeted enough to reach the poor children population in Finland, while the contribution of family benefits seems less decisive in Germany, where the other transfers in place already target above than 90% of the poor children population. Moreover, if we compare these figures with the corresponding ones for the whole population reported in table 12a, we can conclude that in Finland, the considered benefits do not sufficiently target neither the whole poor population nor the poor children sub-population when family benefits are not included in the disposable income, and poor children are less efficiently targeted also in relative terms. Looking at the same row in table 12b, we notice that, in Germany, on the contrary, unemployment benefits, social assistance benefits, housing benefits and pensions, are already targeting efficiently the sub-population of poor children before family benefits are taken into account, and that this set of benefits is targeting better poor children (91%) than the poor population as a whole (55.4% in table 12a).

By the same token, we can try to draw some general conclusions on the effectiveness of each of the benefits considered in terms of target efficiency, with respect to both the total and the children population. We will focus first on the indicators of vertical efficiency and we will consider horizontal efficiency afterwards.

In terms of vertical efficiency, it is possible to point out that there exists quite a considerable heterogeneity across countries in target efficiency for each of the public transfers considered, looking at both children and total population. In particular, the largest variations are observed (in both populations) when social assistance benefits and housing benefits are not included in the

disposable income: in this case, both VEE and PRE exhibit a range (the difference between the maximum and minimum value) of at least 80%, while the range when either unemployment benefits or family benefits or pensions are excluded from disposable income, is narrower in both populations, and comprised between 25% and 45% approximately.

Looking at unweighted averages across countries of both indicators of vertical efficiency (table 13) shows that the lowest average values of both VEE and PRE are reached when family benefits are not included in the disposable income but all the other benefits are; this holds for both populations: VEE is on average 34% in the total population and 31% in the children population, while PRE reaches only 27% in the total population and 25% in the children population. Public transfers other than family benefits, therefore, seem both, on average, to outreach inefficiently the poor versus the non-poor population and to contribute only weakly to the reduction of the poverty gap, without sensible differences between the overall and the children population. Focusing on single countries, in particular, reveals that the exclusion of family benefits harms vertical efficiency in child poverty reduction to a greater extent in Greece, Germany, Denmark, Netherlands, and Finland according to PRE (Greece, Germany, Netherlands and Denmark according to VEE). The exclusion of other types of benefits allows reaching targeting levels of at least 50% under both measures for both children and total population, with the exception of unemployment benefits. The ranking in the relative importance of different transfers is also generally preserved under both VEE and PRE for both populations, while the two measures portrait more heterogeneous outcomes in absolute (average) levels.

In terms of horizontal efficiency, instead, we notice that, on average, the exclusion of public pensions and other contributory benefits leads to the poorest targeting in both children and total populations in nearly all the countries. Besides, the exclusion of social assistance benefits is on average the second factor for magnitude associated to modest horizontal efficiency, while displaying a much greater influence with this respect for the children population in Denmark, Finland, Ireland and UK. Furthermore, it is interesting to point out: the very weak impact of each of the transfers considered in outreaching the poor children population in Greece except for pensions; the poor contribution to the targeting of the poor children population of family benefits in comparison to social assistance benefits in Germany, and the poor contribution of unemployment benefits in Portugal and UK.

Table 14 enables a more detailed overview of single country performances as well as a summary of the information reported in table 12a and table 12b. High and low target efficiency are defined as the values of the target efficiency indicators above the 75% and below the 25% thresholds, respectively. The choice of such thresholds is obviously arbitrary but at least allows in a snapshot a synthetic cross-country comparison of the relevance of the transfers considered. The table summarizes which countries achieve good or bad targeting under the different measures after the

exclusion of each of the transfers from disposable income. The main findings, some of which have been already outlined above, can be therefore sketched as follows:

- *Unemployment benefits*: while none of the countries is able to achieve high vertical efficiency without unemployment benefits (neither in the children nor in the total population), their exclusion is leading to poor targeting under PRE for the total poor population only in Greece and Portugal. In terms of horizontal efficiency, the exclusion of unemployment benefits seem more ineffective in Southern European countries and UK, while leading to poor targeting only in Denmark and Finland (and in France as well for the children population).
- *Social assistance benefits:* the absence of social assistance benefits do not prevent the achievement of high vertical efficiency in the majority of countries under VEE (but only for a smaller group under PRE), while is associated to poor targeting only in Finland (and Greece for the children population under PRE). In terms of horizontal efficiency, instead, the exclusion of social assistance benefits is associated to poor targeting in Denmark, Germany, Ireland and UK, with the addition of Luxembourg and Finland for the poor children population.
- *Family benefits:* in the absence of family benefits, none of the countries is able to achieve high vertical efficiency, while the majority of countries (Austria, Belgium, Denmark, Finland, Germany, Greece, Luxembourg, Netherlands and Sweden) exhibits poor targeting of the poor children population under PRE. In terms of horizontal efficiency, family benefits do not seem influential to achieve good targeting in Germany, Greece, Netherlands and Spain, neither for the children nor for the total poor population, while their absence is associated to insufficient targeting of poor children in Belgium, Finland, France and Luxembourg.
- *Housing benefits:* housing benefits do not seem influential for the achievement of vertical efficiency in Ireland and the UK (neither in the Netherlands for the poor children population) under VEE (in Ireland only under PRE), while their exclusion is hampering vertical efficiency in targeting poor children only in Spain and the total poor population only in Greece (and Portugal under PRE). Interestingly, in none of the countries the absence of housing benefits is associated to low horizontal efficiency; high horizontal efficiency before housing benefits is instead already achieved in Austria, Greece, Ireland, Netherlands, Luxembourg and Spain with respect to the poor children population, with the addition of Denmark, Portugal and Germany when considering the total poor population.

- *Other contributory benefits and pensions*: the case of contributory benefits and pensions is probably the more clear-cut, in particular with respect to horizontal efficiency; in the absence of such transfers, in fact, nearly all the countries display low targeting of both the total poor (with the exception of Italy) and the children poor (with the exception of Italy and Portugal) population. On the other hand, the absence of such benefits prevent the achievement of high vertical efficiency for all the countries under PRE but not for Austria, Belgium, Denmark, France, Germany, Luxembourg, Netherlands and Sweden under VEE.

Conclusions

In this paper we have focused on the most recent tendencies in child poverty in the old Members States of the European Union (EU15) comparing different data sources, on a series of methodological issues related to child poverty measurement, and on the analysis of the effectiveness of the main public transfers schemes with respect to child poverty reduction.

The first section of the paper has discussed the most recent empirical evidence available from official statistical sources on how poverty incidence across different household types is affected by the presence of children. Child poverty rates in Europe are in general higher and exhibit more variation than national poverty rates, they're higher in countries with high overall poverty incidence (Portugal, Ireland, Spain, Italy and UK), and did not show any common trend towards convergence over the second half of the '90s. Household income poverty increases with the number of children: single mothers with dependent children and families with two adults and three or more dependent children are the household typologies with higher than national poverty rates; in particular, the risk of poverty increases noticeably above the national level from families with two children to families with three or more children, especially in countries with high overall poverty rates. Compared with other population subgroups normally considered at high risk of social exclusion, children experience a higher poverty risk than the old age group (above 65) in Italy, Spain, Netherlands and Luxembourg and higher than the youth aged 16-24 in Ireland, Portugal, Spain, and UK. Looking instead at the relationship between child poverty, some key performance indicators in the labour market and the distribution of social protection expenditure, we showed that child poverty rates are negatively correlated with the female employment rate and with the share of family and children benefits in the total social benefits expenditure, and are positively, albeit mildly, correlated with the incidence of low-paid workers in total employment.

The second section of the paper has confronted the empirical evidence provided in the first section with a more detailed analysis of child poverty carried out using the tax-benefit microsimulation model EUROMOD. First of all, the distribution of children across household typologies has been investigated: in nearly all countries, most children live in couples with at least two children with the exception of some southern European countries, while the concentration of children in lone-parents

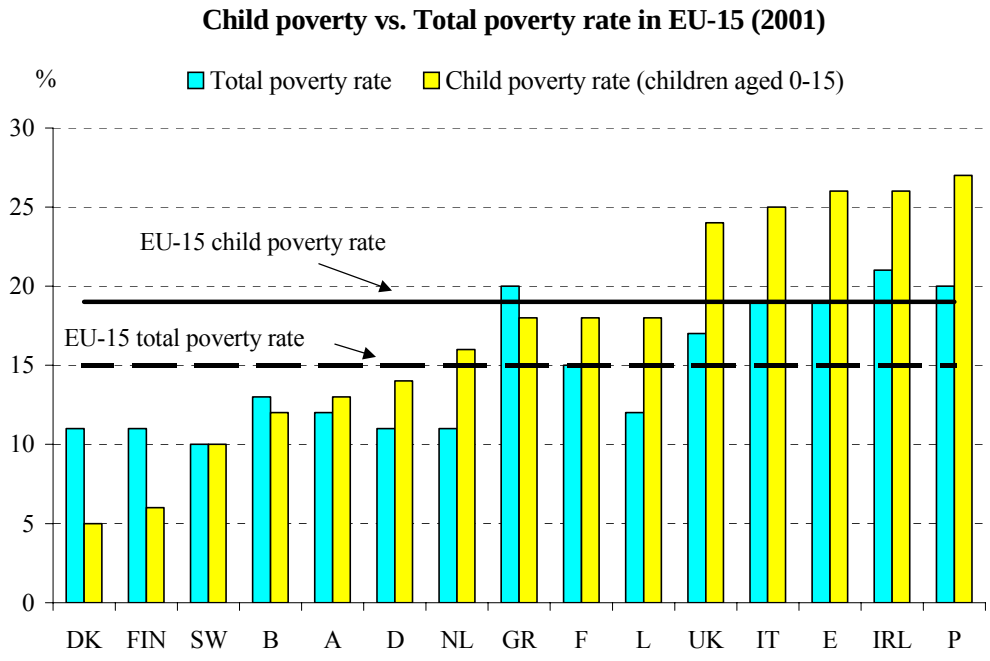
households is higher in the Nordic countries and in Germany. The general findings on child poverty statistics (also by household typologies) are in line with the figures coming from official statistical sources: the highest at-risk-of-poverty rates for children are observed in almost all countries for couples with at least three children and for lone parents with children (with the exception of Italy, where the latter category's weight is traditionally smaller). Poverty rates among the youngest children (0-11) are systematically higher than for the older (12-17) cohorts (except for Portugal), while the distribution of poor children across household types is less homogenous across countries: in Germany and UK, in fact, the relative majority of poor children is concentrated among lone parent households, in Southern Europe among couples with two children (in Italy and Spain in particular such share is higher in families including at least one young adult above 18), while in the Nordic countries and Ireland among couples with at least three children. The demographic portrait of child poverty is completed by the U-shape profile of poverty rates by age classes often pointed out by the literature observed for the majority of the EU15 countries, with the exception of the inverse U-shape pattern shown by Sweden and Netherlands, and by the pattern declining with age by France and Denmark. A sensitivity analysis has shown that measurement of child poverty is highly sensitive both to the choice of the poverty line and, to a greater extent, to the choice of the poverty index, which both affect the ranking of countries in terms of child poverty statistics. The ranking of countries instead is only mildly affected by the choice of the equivalence scale, which on the other hand can influence the observed levels of poverty measures. Finally, child poverty is overwhelming in families experiencing high incidence of unemployment or inactivity, while the employment of at least one family member seems to be one of the main causes behind low child poverty rates in the Nordic, Anglo-Saxon and Central-European countries, as confirmed by the dramatic drop in child poverty rates as the number of earners grows from zero to one in particular in two-parents families.

The last section of the paper has investigated the effectiveness of the most relevant typologies of family transfers in reducing child poverty in comparison to poverty reduction in the total population. The performance of the different public transfer schemes in targeting the poor has been assessed according to a set of standard measures of both vertical and horizontal efficiency. A summary of the results shows that family benefits seem one of the most important components of public transfers to both overall and child poverty reduction; the absence of family benefits is associated to the lower average targeting across EU15 countries, in particular in Greece, Germany, Denmark, Finland and Netherlands, and to the impossibility to achieve high levels of vertical efficiency. Exclusion of social assistance benefits from households' disposable income doesn't prevent sufficient targeting in the majority of countries, while in terms of outreaching the poor population leads to poor targeting in particular in Ireland, Denmark, Finland, Germany and UK. Unemployment benefits exclusion is associated to poor targeting in Denmark and Finland while seems not influential in Southern Europe and UK. Housing benefits play in general a minor role in achieving either vertical or horizontal efficiency. On the contrary, in the absence of contributory benefits and pensions, nearly all countries exhibit poor targeting in terms of horizontal efficiency,

while in terms of vertical efficiency the evidence is mixed: high target efficiency is never achieved under PRE, while high vertical expenditure efficiency is reached by the majority of countries excluding Southern Europe, UK, Ireland and Finland.

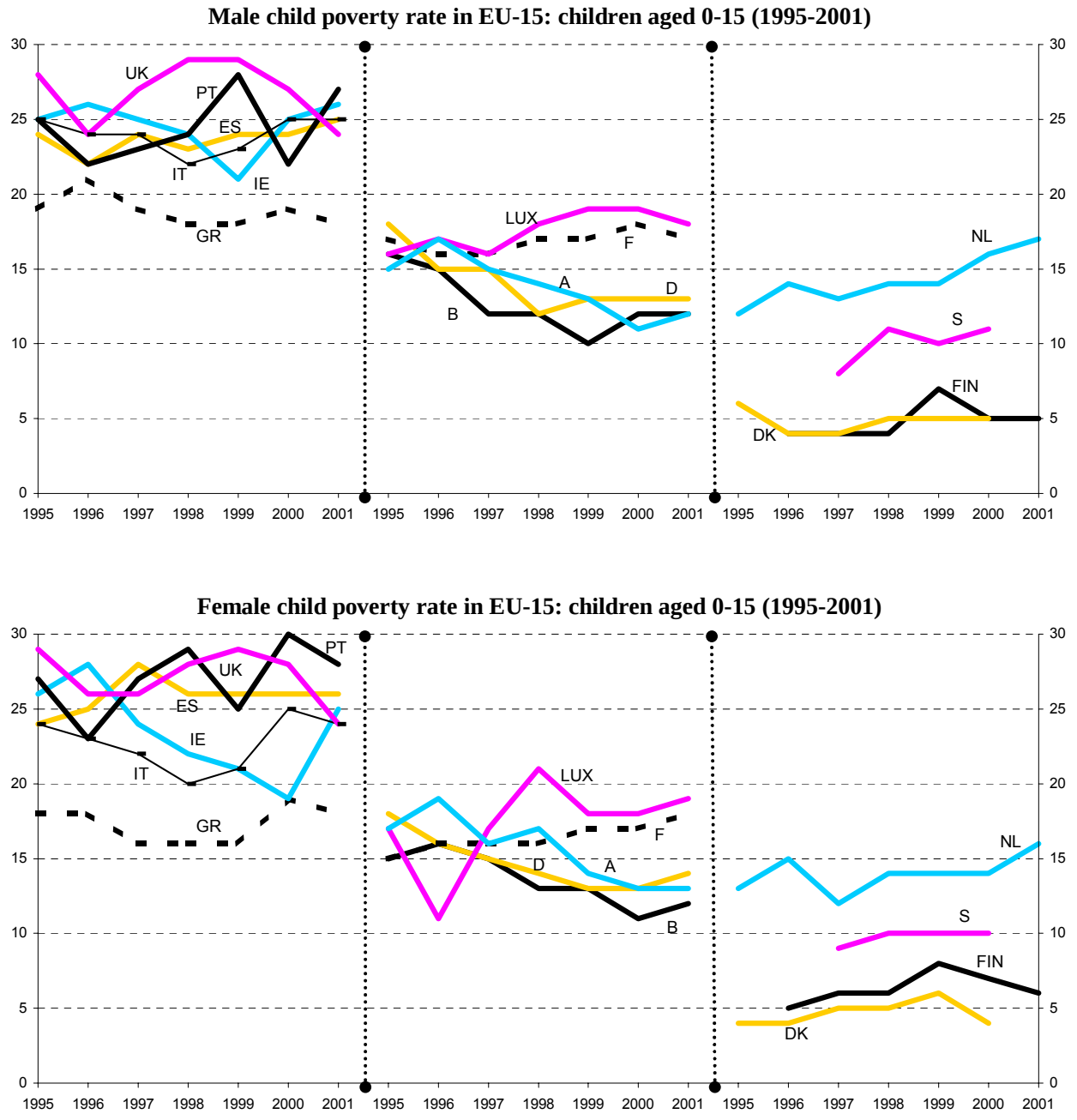
Appendix

Figure 1



Source: EUROSTAT (2004)

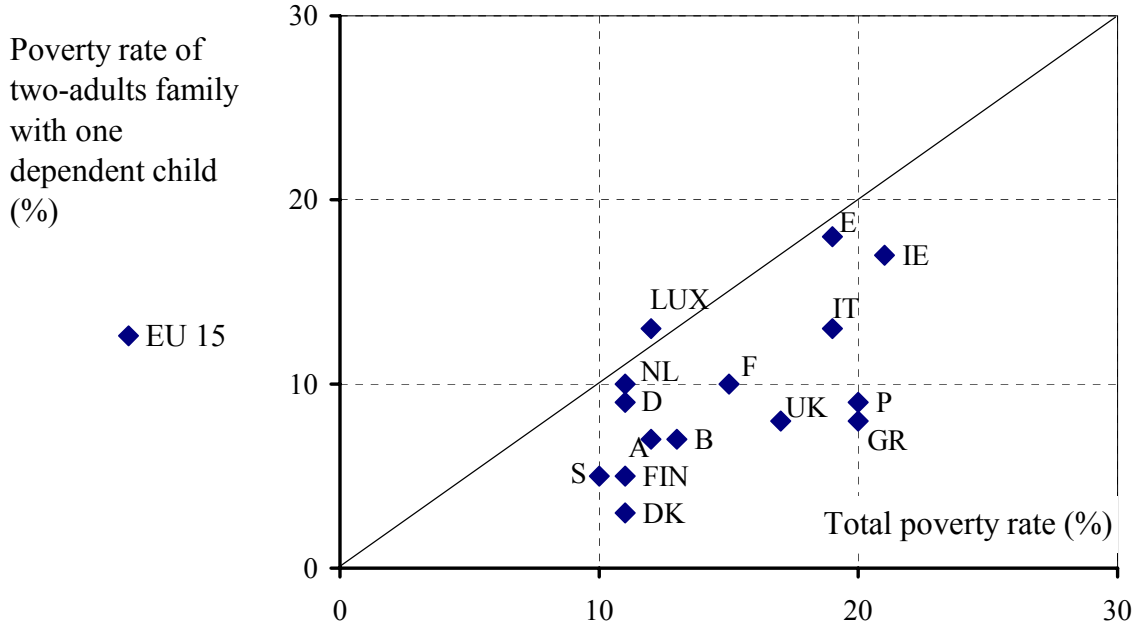
Figure 2



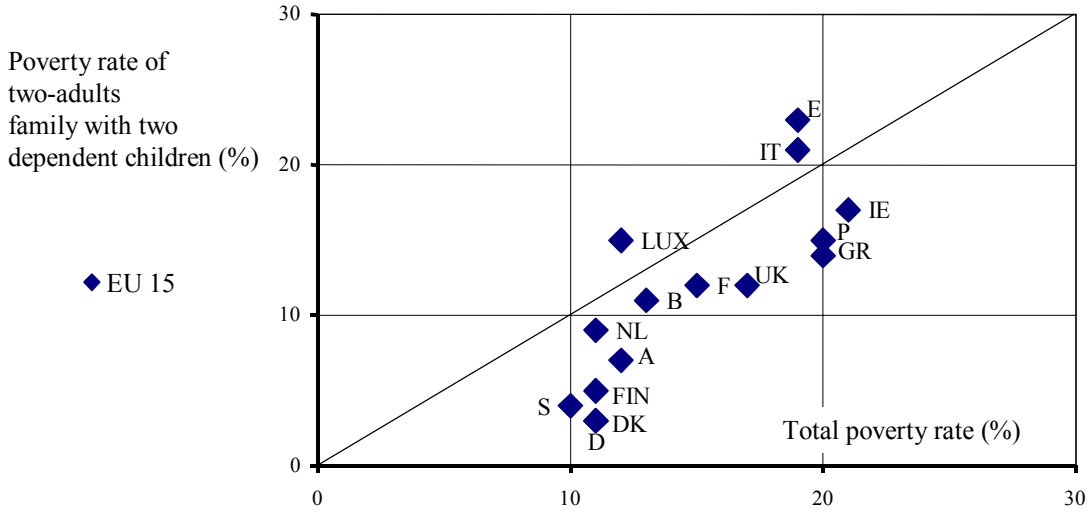
Source: EUROSTAT (2004)

Figure 3a-3b-3c-3d

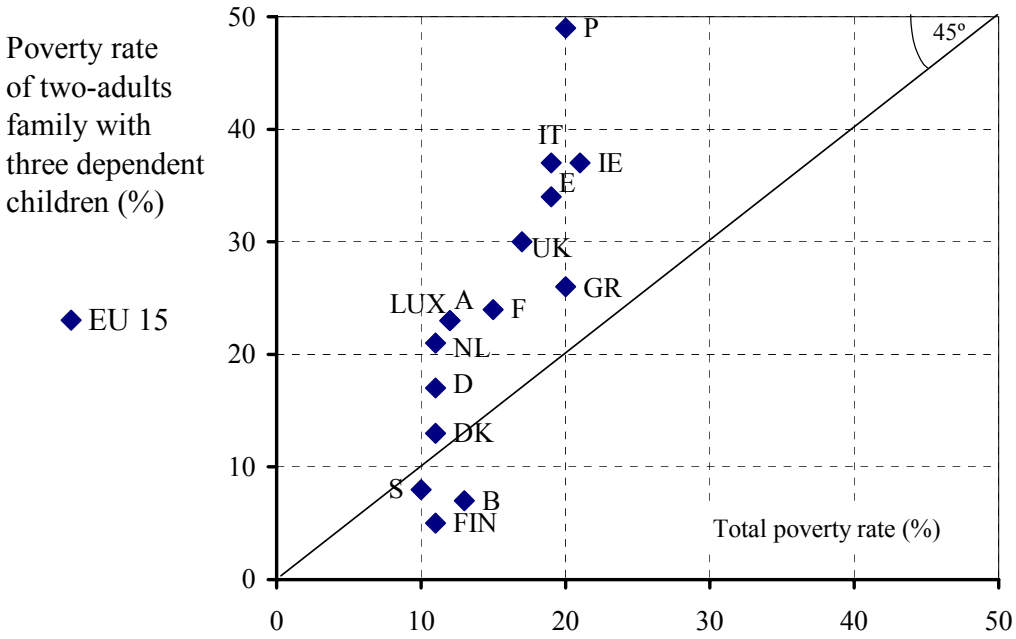
Poverty rates of two adults with one children and total poverty in EU-15 (2001)



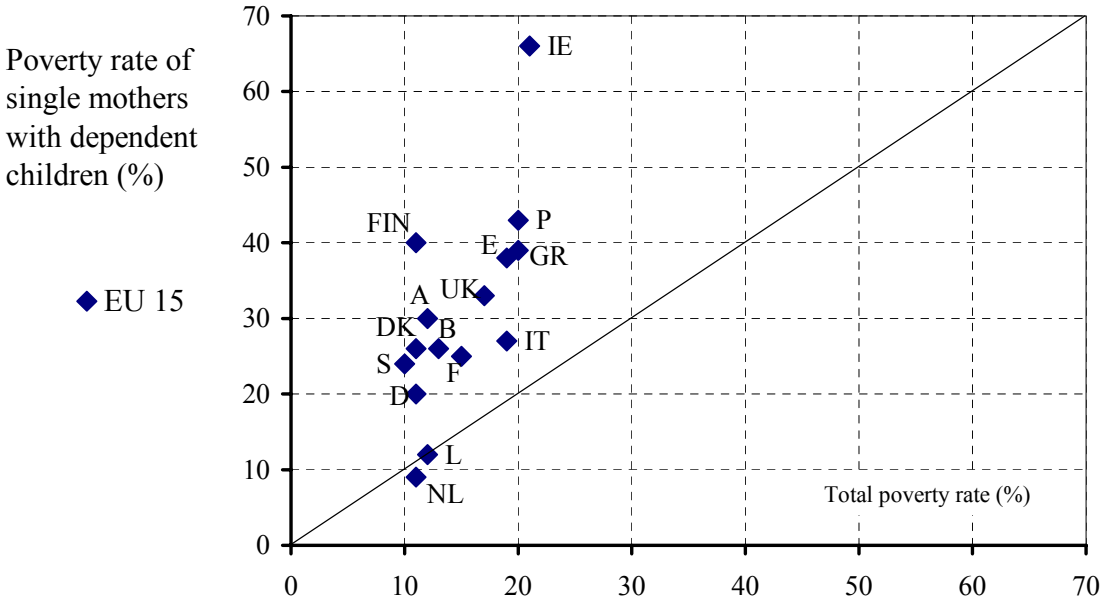
Poverty rates of two adults with two children and total poverty in EU-15 (2001)



Poverty rates of two adults with three children and total poverty in EU-15 (2001)



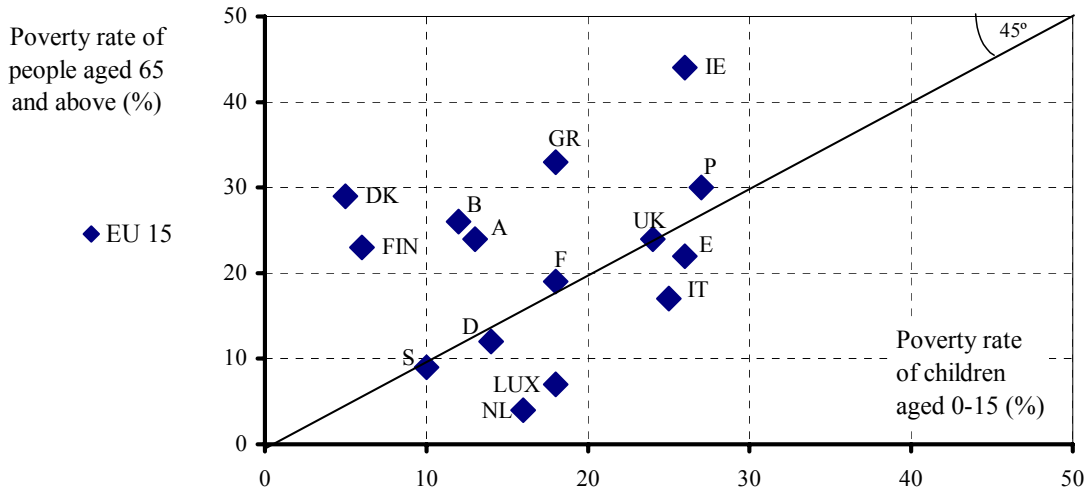
Poverty rates of single mothers with children and total poverty in EU-15 (2001)



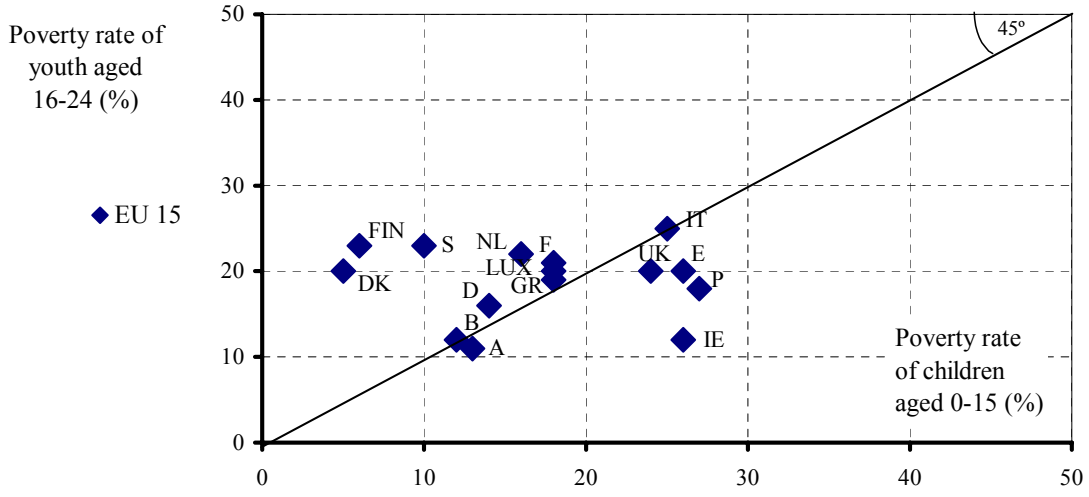
Source: EUROSTAT (2004)

Figure 4a-4b

Children vs. Old-Age Poverty in EU-15 (2001)

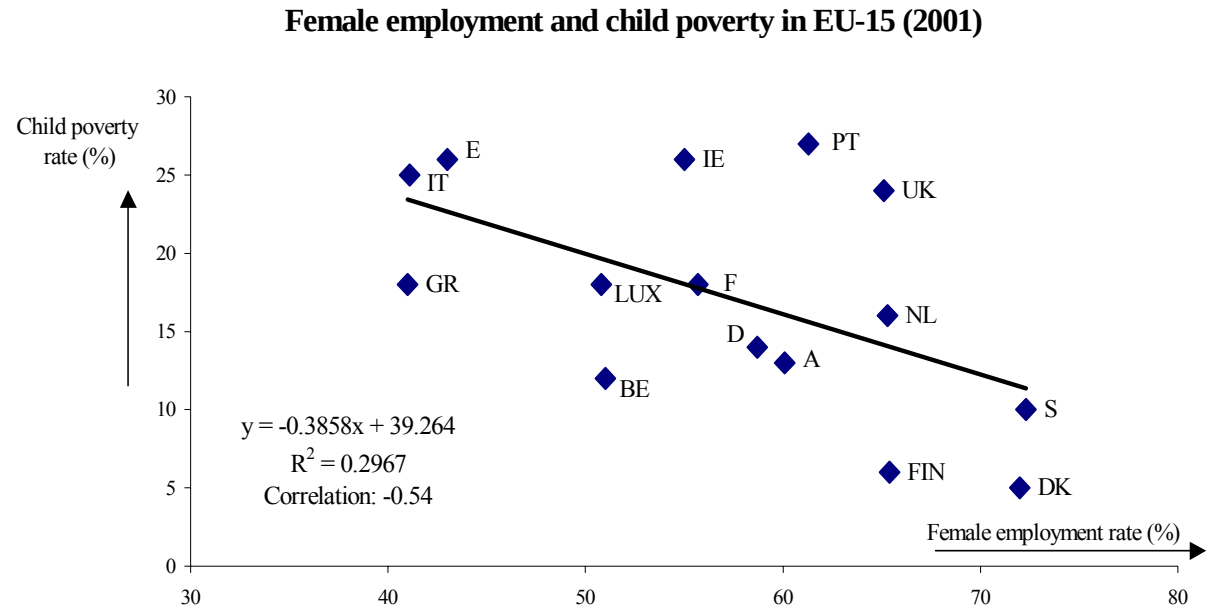


Children vs. Youth Poverty in EU-15 (2001)



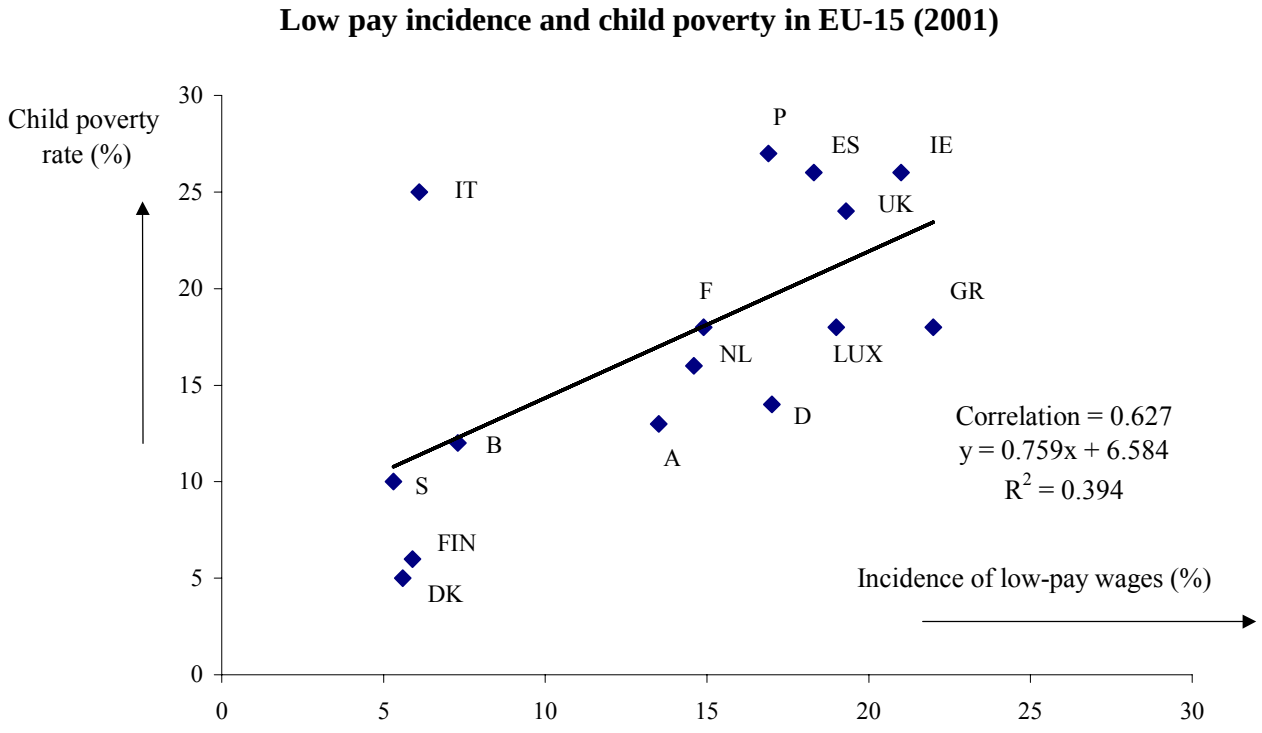
Source: EUROSTAT (2004)

Figure 5



Source: EUROSTAT (2004)

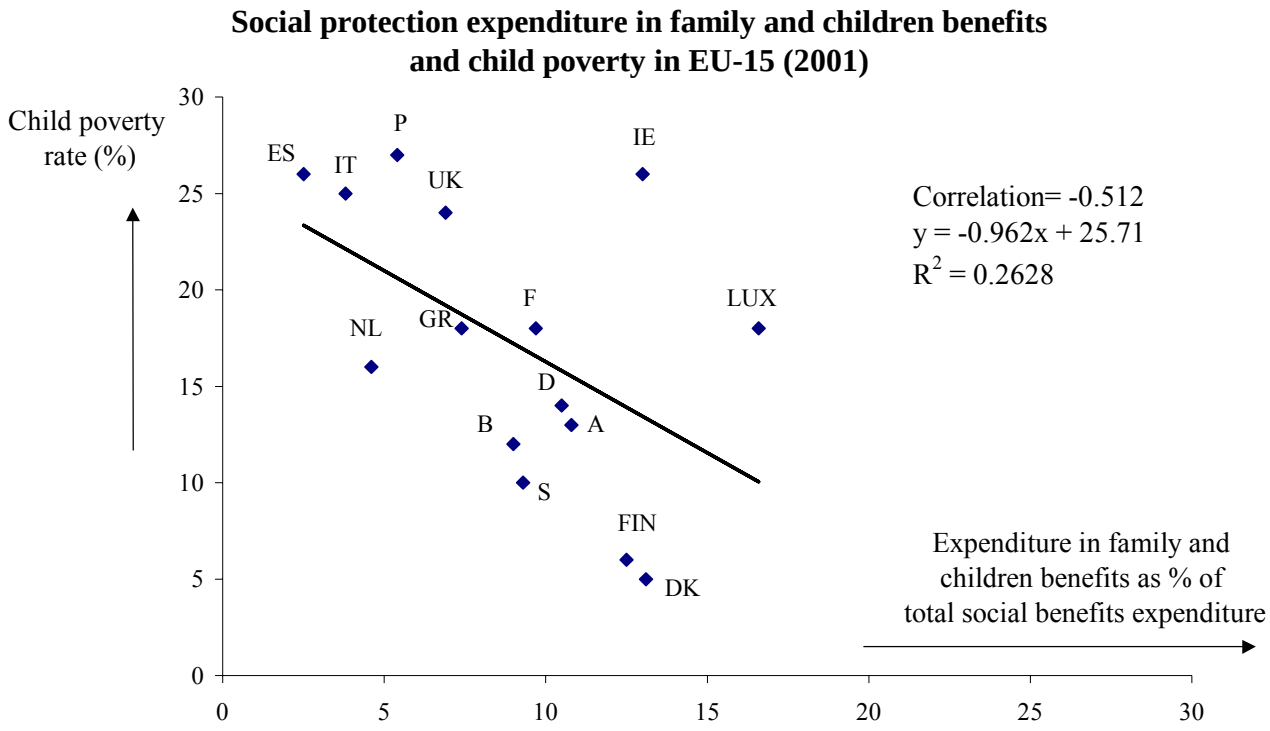
Figure 6



Source: Mira D'Ercole and Salvini (OECD, 2003)[3]

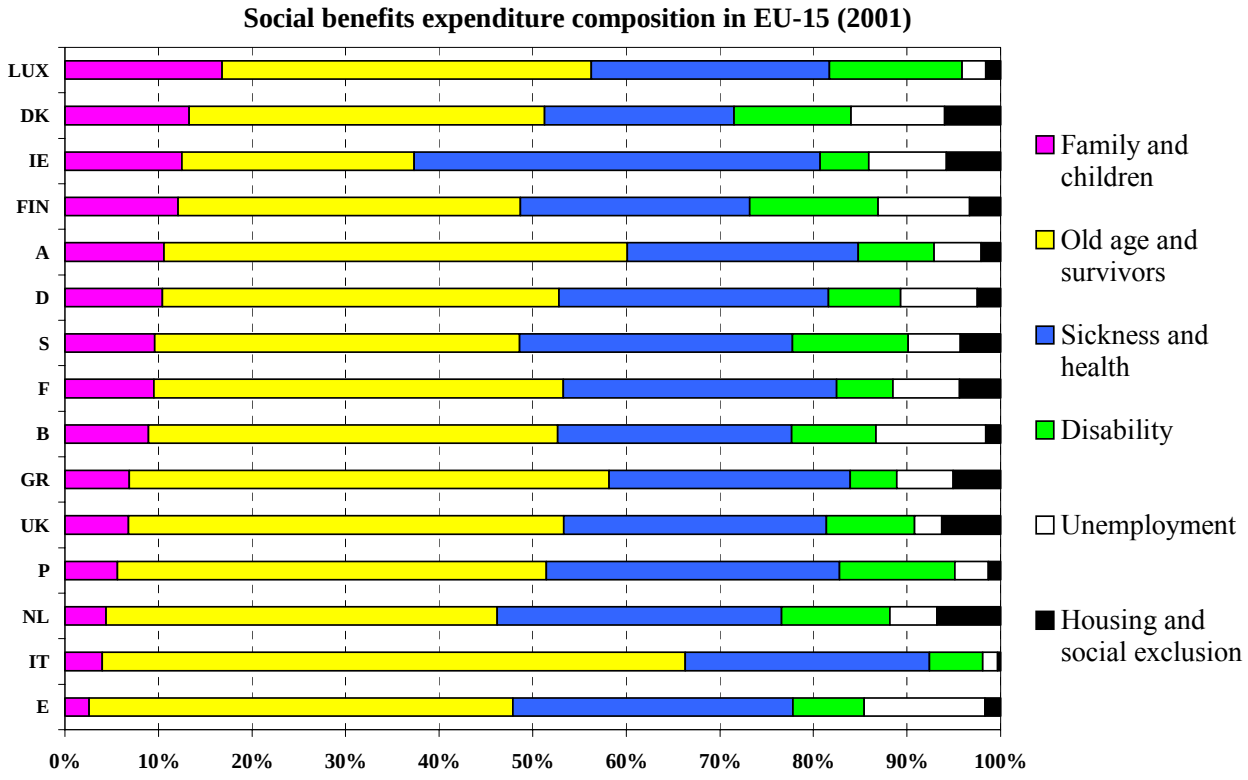
[3] Low paid workers (or "working poor") are defined as workers in full time employment whose earnings are below 2/3 of the median earning.

Figure 7



Source: EUROSTAT (2004)

Figure 8



Source: EUROSTAT (2004)

Table 1 - Distribution of children* by household type, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	13,9	12,3	18,2	14,2	15,2	16,9	14,5	5,0	15,8	14,5	11,3	16,1	14,5	15,1	12,0
couple with 2 children	35,9	36,2	36,7	31,9	33,7	30,8	45,1	17,1	39,3	35,4	44,1	30,9	40,9	36,9	33,0
couple with 3+ children	17,2	27,7	20,1	26,3	27,5	15,0	12,4	39,9	17,2	25,8	30,5	12,7	12,7	28,5	23,1
Lone parent with children	9,2	9,5	12,9	11,7	7,8	20,1	2,9	9,2	2,8	5,0	6,8	5,5	2,6	19,0	19,1
Lone parents with at least 1 child 18+	0,7	1,6	0,8	1,3	1,6	0,9	1,3	1,4	1,2	1,9	0,6	1,3	1,4	0,0	1,5
Couple with at least 1 child 18+	9,6	9,8	9,9	8,5	10,9	9,4	9,8	16,9	14,6	9,1	5,9	14,9	16,3	0,0	5,4
Other households with children	13,5	2,9	1,3	6,1	3,2	6,8	14,1	10,6	9,1	8,3	0,8	18,5	11,6	0,5	6,0
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Children as % of population	21,3	23,1	23,3	22,7	24,0	18,9	21,3	33,2	18,6	22,0	23,6	22,4	20,1	21,7	23,6

(*) Children are below 18 years old.

Source: EUROMOD

Table 2 - Child poverty rate by household type, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	9,7	10,2	4,3	5,8	7,8	7,1	10,4	15,5	12,1	8,0	4,7	12,2	12,6	3,8	17,4
couple with 2 children	15,1	15,5	3,0	4,8	9,9	5,4	14,9	14,2	20,1	13,6	7,5	16,5	15,4	3,9	16,1
couple with 3+ children	38,5	20,1	8,3	6,7	13,0	6,4	10,0	30,6	33,9	22,7	11,7	33,3	31,3	7,0	34,6
Lone parent with children	32,5	17,3	5,1	6,6	12,4	12,4	41,1	48,2	23,0	18,6	33,7	48,5	40,7	3,0	51,3
Lone parents with at least 1 child 18+	31,7	37,2	0,0	2,6	22,1	3,6	25,7	23,7	66,7	39,5	36,8	22,2	38,9	0,0	35,0
Couple with at least 1 child 18+	9,3	19,4	7,3	1,4	15,8	0,6	15,9	15,2	28,2	10,3	4,4	19,1	25,2	0,0	9,9
Other households with children	13,2	46,1	23,4	0,9	22,7	7,4	29,4	11,5	26,1	12,8	52,2	26,2	23,6	29,0	45,1
Child poverty (all children)	19,3	17,9	5,3	5,1	11,9	6,9	16,7	23,9	23,6	15,5	10,6	22,0	20,6	4,7	28,9
Total poverty (all population)	12,9	13,9	11,6	9,9	11,5	9,8	21,8	18,7	19,5	11,0	10,3	21,8	18,0	7,9	20,4

Poverty line: 60% of national median equivalent disposable income
Unit of analysis: individual (each person has the equivalent disposable income of the household she/he belongs to)
Poverty measure: head count ratio
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

Source: EUROMOD

Table 3 - Share of poor children by household type, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	7,0	7,0	14,9	16,1	10,0	17,5	9,0	3,3	8,1	7,5	5,0	8,9	8,9	12,2	7,2
couple with 2 children	28,1	31,4	21,1	30,2	27,9	24,1	40,2	10,1	33,5	31,2	31,1	23,2	30,6	30,5	18,4
couple with 3+ children	34,4	31,0	31,3	34,3	30,1	13,8	7,4	51,1	24,7	37,8	33,6	19,2	19,4	42,7	27,6
Lone parent with children	15,5	9,1	12,5	15,2	8,1	36,0	7,2	18,4	2,7	6,0	21,6	12,2	5,1	12,3	33,9
Lone parents with at least 1 child 18+	1,1	3,3	0,0	0,7	3,0	0,5	2,0	1,3	3,4	4,7	2,1	1,5	2,7	0,0	1,8
Couple with at least 1 child 18+	4,6	10,6	13,7	2,4	14,5	0,8	9,4	10,7	17,5	6,0	2,4	12,9	20,0	0,0	1,8
Other households with children	9,3	7,5	6,0	1,1	6,2	7,3	24,8	5,1	10,1	6,9	3,9	22,1	13,3	3,0	9,4
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Poverty line: 60% of national median equivalent disposable income
Poverty measure: head count ratio
Unit of analysis: individual (each person has the equivalent disposable income of the household she/he belongs to)
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

Source: EUROMOD

Table 4 - Poverty rates by age classes, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
0-17	19,3	17,9	5,3	5,1	11,9	6,9	16,7	23,9	23,6	15,5	10,6	22,0	20,6	4,7	28,9
18-34	9,9	12,1	13,7	10,6	13,8	9,9	17,6	12,1	20,6	11,6	13,1	14,4	18,1	19,9	18,7
35-64	9,6	12,2	6,3	7,2	9,7	9,0	18,9	15,6	17,2	8,6	8,8	19,7	16,5	4,3	14,4
65+	16,5	14,5	34,3	24,4	11,9	15,0	39,7	26,3	18,8	9,2	9,0	40,2	18,1	4,2	24,1
Total	12,9	13,9	11,6	9,9	11,5	9,8	21,8	18,7	19,5	11,0	10,3	21,8	18,0	7,9	20,4

Source: EUROMOD

Table 5 - Child poverty rates by age classes, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
0-5	19,4	19,1	6,0	5,3	14,4	8,9	14,8	24,5	24,3	17,2	11,1	20,1	19,7	5,5	32,8
6-11	23,1	18,5	4,4	5,4	11,7	7,4	17,9	25,4	24,0	15,4	11,8	21,4	19,9	4,8	31,3
12-17	15,7	16,1	5,2	4,6	9,7	4,6	16,7	22,2	22,6	13,6	8,5	23,6	21,6	3,9	22,7
Total	19,3	17,9	5,3	5,1	11,9	6,9	16,7	23,9	23,6	15,5	10,6	21,9	20,5	4,7	28,9

Poverty line: 60% of national median equivalent disposable income
Poverty measure: head count ratio
Unit of analysis: individual (each person has the equivalent disposable income of the household she/he belongs to)
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

Source: EUROMOD

Table 6a - Child poverty rate (head count ratio) by household type and poverty line*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	3,3	2,0	1,6	0,3	1,4	2,3	5,5	1,2	5,4	0,8	0,8	4,9	5,9	0,9	2,1
couple with 2 children	1,9	2,8	0,5	0,1	1,4	0,2	6,6	0,2	8,5	2,1	1,3	3,7	6,6	1,1	1,6
couple with 3+ children	7,5	-	3,6	0,1	0,3	0,8	4,8	0,4	17,6	-	0,8	1,4	12,0	1,2	1,8
Lone parent with children	2,2	1,9	1,7	0,5	1,1	1,0	22,8	2,8	13,3	2,2	12,3	4,0	23,1	0,8	1,9
Lone parents with at least 1 child 18+	-	6,8	-	-	-	-	25,7	-	36,9	4,3	7,0	3,3	23,9	-	-
Couple with at least 1 child 18+	0,9	-	-	-	1,7	-	7,9	1,4	11,1	-	1,4	4,6	10,5	-	2,0
Other households with children	0,8	7,5	-	-	2,8	-	10,8	0,2	13,0	5,0	30,1	5,7	11,6	27,1	17,7
Child poverty (all children)	2,8	1,8	1,4	0,2	1,1	0,8	7,7	0,8	10,8	1,5	2,1	4,1	9,1	1,2	2,7
Total poverty (all population)	1,9	2,0	2,2	0,7	1,2	2,3	11,0	0,8	7,4	1,3	2,0	6,6	7,0	4,3	2,2

(*) Poverty line: 4**0%** of national median equivalent disposable income
[benchmark: 60% of national median equivalent disposable income]

Table 6b - Child poverty rate (head count ratio) by household type and poverty line*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	6,2	5,3	2,7	2,2	4,2	3,7	6,9	9,1	8,0	3,4	2,8	7,7	8,5	1,3	7,9
couple with 2 children	7,1	10,1	1,2	1,3	4,1	3,8	9,3	8,3	13,7	7,5	2,8	9,9	9,6	2,2	7,8
couple with 3+ children	22,7	8,5	4,9	1,5	4,8	2,4	6,9	22,5	25,5	3,5	5,3	14,7	21,6	2,9	17,0
Lone parent with children	13,4	1,9	3,0	1,1	1,7	4,4	33,9	40,9	18,0	3,0	18,8	19,6	35,5	2,2	21,3
Lone parents with at least 1 child 18+	-	23,8	-	-	9,5	-	25,7	12,7	43,5	19,0	12,4	15,2	24,9	-	9,8
Couple with at least 1 child 18+	1,2	7,1	3,1	0,5	6,2	0,1	11,6	4,4	17,8	10,1	2,0	13,4	15,8	-	6,7
Other households with children	1,9	12,5	-	0,1	13,4	2,2	17,5	1,9	21,4	6,0	30,1	16,1	19,8	29,0	28,6
Child poverty (all children)	8,9	8,3	2,6	1,3	4,7	3,2	11,0	15,7	16,6	6,0	4,9	12,4	14,0	2,4	13,7
Total poverty (all population)	5,2	6,2	4,6	3,5	4,9	5,1	15,5	10,1	12,8	4,1	3,8	13,6	12,0	5,6	9,5

(*) Poverty line: **50%** of national median equivalent disposable income
[benchmark: 60% of national median equivalent disposable income]

Source: EUROMOD

Table 6c - Child poverty rate (head count ratio) by household type and poverty line*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	20,3	17,4	6,8	14,7	15,7	11,2	14,3	18,8	18,5	15,9	10,0	16,2	18,2	7,2	23,3
couple with 2 children	28,1	24,5	6,5	11,1	16,5	14,7	19,5	19,8	30,4	26,4	15,8	23,3	22,2	8,1	20,9
couple with 3+ children	53,3	26,5	21,6	15,9	28,3	17,4	16,6	38,9	47,2	36,9	22,5	55,3	38,9	15,0	46,6
Lone parent with children	56,5	44,2	15,6	18,9	34,0	24,7	47,0	59,9	34,6	34,5	64,7	64,4	47,6	10,2	64,8
Lone parents with at least 1 child 18+	66,1	43,4	12,2	3,9	38,1	23,2	27,7	67,2	67,9	52,0	48,9	44,5	44,1	-	57,5
Couple with at least 1 child 18+	13,5	20,4	11,7	10,0	28,3	13,1	23,0	29,2	40,3	20,2	13,4	25,6	33,8	-	12,0
Other households with children	32,0	46,1	39,7	3,5	36,5	13,4	37,0	34,1	36,0	26,7	66,5	41,7	31,9	37,3	59,0
Child poverty (all children)	33,4	26,6	11,8	13,1	23,3	16,3	22,1	34,8	33,9	27,9	21,0	32,5	27,7	10,5	37,9
Total poverty (all population)	21,4	22,4	20,5	18,6	21,1	17,6	28,5	30,3	28,1	20,6	20,4	29,3	25,6	13,6	29,3

(*) Poverty line: **70%** of national median equivalent disposable income
[benchmark: 60% of national median equivalent disposable income]

Source: EUROMOD

Table 6d - Ranking of child poverty rate in the EU15 (decreasing order) by poverty line

*Baseline**	*Poverty Line (1)*	*Poverty line (2)*	*Poverty line (3)*
UK	IT	IT	UK
IR	SP	IR	IR
IT	GR	SP	IT
PT	PT	UK	AT
SP	AT	PT	PT
AT	UK	GR	LU
BE	NL	AT	SP
GR	BE	BE	BE
LU	LU	LU	FR
FR	DK	NL	GR
NL	SW	FR	NL
GE	FR	GE	GE
DK	IR	DK	FI
FI	GE	SW	DK
SW	FI	FI	SW

(*) Baseline: 60% of national median equivalent disposable income
(1): 40% of national median equivalent disposable income
(2): 50% of national median equivalent disposable income
(3): 70% of national median equivalent disposable income

Source: EUROMOD

Table 7a - Child poverty by household type and poverty measure*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	23,5	24,3	30,4	13,2	20,1	21,7	39,9	19,8	37,0	16,5	25,8	23,5	28,4	31,2	19,8
couple with 2 children	15,9	22,3	17,1	10,4	17,4	21,4	34,0	17,4	29,6	18,4	29,3	21,1	34,4	28,5	18,1
couple with 3+ children	23,3	15,0	31,3	9,5	14,3	14,3	33,3	19,0	37,2	9,9	17,5	16,4	30,5	17,2	18,5
Lone parent with children	16,2	10,4	24,7	9,5	8,2	15,9	43,8	20,5	46,4	12,6	34,0	17,1	38,7	29,2	15,5
Lone parents with at least 1 child 18+	9,9	32,1	-	4,2	12,6	7,0	45,0	14,3	32,7	18,1	18,2	21,1	31,8	-	13,2
Couple with at least 1 child 18+	9,8	14,2	17,7	14,0	17,4	6,7	35,8	12,8	30,8	23,6	29,3	24,0	30,5	-	24,7
Other households with children	9,9	17,8	2,8	12,9	18,7	15,1	30,2	9,3	36,8	24,5	29,2	21,2	39,1	65,9	28,6
Child poverty (all children)	18,1	18,2	23,7	10,5	15,9	17,8	34,6	17,9	33,6	15,4	25,9	20,3	33,1	25,2	18,5
Total poverty (all population)	10,1	13,8	16,9	13,7	10,8	17,6	24,1	9,4	15,7	9,9	15,4	15,7	15,0	41,9	12,4

(*) **Income gap ratio** (*I*): $\frac{z-\mu_q}{z}$, where z is the poverty line and μ_q is the average income of the poor.

Table 7b - Child poverty by household type and poverty measure*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	0,8	1,4	0,7	0,2	0,5	0,5	2,4	1,0	2,9	0,4	0,7	0,9	1,5	2,9	1,2
couple with 2 children	0,7	1,0	0,2	0,1	0,5	0,3	2,8	0,5	2,7	0,7	3,0	1,1	3,0	1,6	0,8
couple with 3+ children	3,1	0,6	1,4	0,1	0,4	0,2	1,6	1,3	6,8	0,3	0,7	1,1	4,4	0,4	1,6
lone parent with children	1,3	0,6	0,5	0,1	0,2	0,5	10,6	2,2	7,0	0,7	7,9	2,3	7,6	0,4	1,7
lone parents with at least 1 child 18+	0,3	8,1	-	-	0,5	-	5,8	0,7	10,3	1,7	2,6	1,3	5,3	-	0,8
Couple with at least 1 child 18+	0,2	0,5	0,3	-	0,8	-	3,0	0,4	4,3	0,6	0,8	1,4	3,8	-	0,9
Other households with children	0,3	1,9	-	-	1,2	0,2	4,7	0,2	4,6	1,1	6,9	1,6	5,1	14,2	6,0
Child poverty (all children)	1,1	1,0	0,5	0,1	0,5	0,3	3,1	0,9	4,1	0,6	2,3	1,3	3,5	1,3	1,5
Total poverty (all population)	0,7	1,4	1,0	0,3	0,5	0,7	4,5	0,8	3,0	0,5	1,5	1,8	2,7	3,1	1,2

(*) **Foster-Greer-Thorbecke index** (FGT): $\frac{1}{N}\sum_{i=1}^{q}\left(\frac{z-y_i}{z}\right)^{\alpha}$, where N is the total population, q is the number of the poor, z is the poverty line and α is a poverty aversion parameter. Here we assume $\alpha = 2$.

Source: EUROMOD

Table 7c - Child poverty ranking in the EU15 (decreasing order) by poverty index

Headcount ratio	*Income gap ratio*	*FGT index*
UK	GR	IT
IR	IT	SP
IT	SP	GR
PT	NL	NL
SP	SW	UK
AT	DK	SW
BE	PT	PT
GR	UK	AT
LU	BE	BE
FR	AT	IR
NL	IR	LU
GE	GE	DK
DK	FR	FR
FI	LU	GE
SW	FI	FI

Source: EUROMOD

Table 8a - Child poverty rate (head count ratio) by household type and equivalence scale*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	9,7	12,1	5,0	6,1	9,2	7,6	12,0	17,1	15,6	11,2	5,4	14,5	16,8	3,6	17,9
couple with 2 children	9,6	14,4	3,3	5,0	10,2	5,6	16,7	17,2	22,8	16,3	8,0	20,2	18,9	3,5	16,9
couple with 3+ children	27,3	8,8	8,3	4,0	11,9	5,2	11,8	31,0	38,4	24,5	11,3	33,7	33,8	4,9	32,2
Lone parent with children	36,5	22,7	15,6	18,0	32,3	23,0	51,3	52,5	36,0	34,5	62,8	66,9	57,4	6,1	62,3
Lone parents with at least 1 child 18+	-	26,0	-	2,6	18,1	3,6	27,7	49,0	67,9	39,5	36,8	36,1	43,0	-	35,0
Couple with at least 1 child 18+	2,0	6,6	5,4	1,0	8,3	0,1	14,0	6,6	25,1	10,1	2,6	17,2	23,3	-	6,7
Other households with children	4,4	12,5	23,4	1,2	20,5	4,7	21,9	11,0	23,4	8,1	52,7	21,6	22,4	29,0	36,8
Child poverty (all children)	13,7	12,7	6,6	5,8	12,5	8,8	17,0	23,9	25,6	17,8	12,6	23,6	23,0	4,5	30,1
Total poverty (all population)	11,8	14,4	13,0	11,2	11,8	10,9	21,8	20,3	20,2	12,2	12,1	22,9	19,7	8,0	21,4

(*) Equivalence scale: square root of family size

Table 8b - Child poverty rate (head count ratio) by household type and equivalence scale*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple with 1 child	9,7	13,4	5,0	8,7	9,2	8,7	10,4	13,5	11,9	9,4	5,4	11,2	11,4	6,8	18,5
couple with 2 children	21,9	21,6	5,8	9,5	14,8	14,4	16,8	14,2	22,7	22,0	13,4	17,6	17,2	11,1	19,6
couple with 3+ children	50,0	25,4	24,5	21,1	33,6	27,4	16,0	33,8	44,3	38,8	24,2	53,4	38,6	28,2	49,2
Lone parent with children	33,1	21,3	5,4	5,9	19,3	18,8	37,0	60,9	22,0	12,3	40,7	42,4	39,0	8,7	51,2
Lone parents with at least 1 child 18+	66,1	40,2	6,4	3,9	33,7	30,4	25,7	23,7	66,7	39,5	36,8	29,8	43,0	-	50,6
Couple with at least 1 child 18+	13,9	19,6	10,2	14,1	30,5	24,6	21,2	24,1	36,3	20,8	16,0	23,9	31,7	-	11,6
Other households with children	28,0	46,1	31,6	3,4	37,3	15,3	37,1	23,0	33,8	23,8	66,5	35,8	29,0	34,7	55,7
Child poverty (all children)	26,5	22,4	10,1	11,9	22,2	17,4	19,7	29,0	28,2	24,4	18,4	27,0	23,7	15,0	34,5
Total poverty (all population)	13,6	14,2	8,9	7,0	14,4	11,2	21,8	17,3	19,5	13,3	10,7	20,7	18,9	10,7	19,0

(*) Equivalence scale: (No. of adults + 0.7 No. of children)$^{0.85}$
[children are below 18 years old]

Source: EUROMOD

Table 8c - Ranking of child poverty rate in the EU15 (decreasing order) by equivalence scale

*Baseline**	*Scale (1)*	*Scale (2)*
UK	UK	UK
IR	IT	IR
IT	IR	IT
PT	PT	PT
SP	SP	AT
AT	LU	SP
BE	GR	LU
GR	AT	BE
LU	BE	FR
FR	NL	GR
NL	FR	NL
GE	GE	GE
DK	DK	SW
FI	FI	FI
SW	SW	DK

(*) Baseline: OECD modified equivalence scale
(1): Square root of family size
(2): (No. of adults + 0.7 No. of children)$^{0.85}$

Source: EUROMOD

Table 9 - Child poverty rate by labour market situation of the household*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
Working	18.3	12.8	3.9	4.3	9.8	3.0	14.7	5.5	20.9	13.6	7.8	20.2	16.6	4.5	14.7
Unemployed	73.2	68.7	5.3	35.8	59.4	32.5	79.3	86.4	91.1	100	57.0	60.9	83.1	10.6	81.6
Retired	45.4	66.6	-	1.6	26.9	12.8	36.5	40.5	50.8	46.3	-	86.5	31.3	-	47.6
Inactive	38.4	54	58.6	13.6	48.1	46.9	74.7	73.	81.3	65.7	66.9	67.8	73.8	7.3	71.8
Child poverty (all children)	19,3	17,9	5,3	5,1	11,9	6,9	16,7	23,9	23,6	15,5	10,6	22,0	20,6	4,7	28,9

Poverty line: 60% of national median equivalent disposable income
Unit of analysis: individual (each person has the equivalent disposable income of the household she/he belongs to)
Poverty measure: head count ratio
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

(*) Labour market situation of the household:

- **Working**, if a household has at least one member who is working
- **Unemployed**, if a household has no working members and at least one member is unemployed
- **Retired**, if a household has no working or unemployed members and at least one member is retired
- **Other inactive**, if a household has no working, unemployed or retired members.

Table 10 - Child poverty rate by household type and number of earners, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
couple, no earner	16,2	24,7	43,9	18,5	16,8	21,0	48,4	72,7	20,9	15,4	18,8	48,5	34,4	4,9	41,5
couple, 1 earner	27,5	21,6	8,9	11,4	18,9	5,6	18,1	8,6	28,2	16,2	11,8	32,5	18,3	8,3	24,8
couple, 2+ earners	5,2	5,2	2,3	3,5	1,9	1,2	6,0	0,3	4,1	5,1	1,6	4,7	6,7	2,9	2,4
lone parent, no earner	57,1	33,7	8,2	15,7	30,5	34,9	73,4	70,6	44,6	7,8	46,0	67,7	74,3	7,4	69,3
lone parent, 1+ earners	10,8	9,6	5,7	5,7	9,3	3,8	15,7	3,9	15,5	9,6	6,8	16,8	13,4	7,2	9,4
Child poverty (all children)	19,31	17,91	5,27	5,10	11,87	6,90	16,66	23,91	23,56	15,51	10,57	21,96	20,55	4,73	28,91

Poverty line: 60% of national median equivalent disposable income
Unit of analysis: individual (each person has the equivalent disposable income of the household she/he belongs to)
Poverty measure: head count ratio
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

Table 11- Child poverty and low pay*, 2001

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
Low-paid workers (%)	9.6	-	3.8	2.8	9.2	9	22.7	1	12.7	-	4.9	14.7	44.3	-	7.8
Child poverty (all children)	19.3	17.9	5.3	5.1	11.9	6.9	16.7	23.9	23.6	15.5	10.6	21.9	20.5	4.7	28.9

Poverty line: 60% of national median equivalent disposable income
Unit of analysis: individual (each person has the equivalent disposable income of the household she/he belongs to)
Poverty measure: head count ratio
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)
(*) Low-pay: low-pay is defined as earnings (both full-time and part-time) less than two-thirds of the national median *monthly* wage. All workers, both employee and self-employed, are considered.

Table 12a - Target efficiency of family transfers

		AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
Total Population																
	before Unemployment Benefits	40.7	64.0	71.6	48.9	52.0	49.4	30.8	48.2	68.4	48.0	56.1	42.7	43.4	58.0	51.8
VEE	before Social Assistance Benefits	46.3	79.3	81.2	19.2	59.9	79.7	59.8	79.1	53.1	95.1	85.8	100.0	51.6	82.5	83.1
	before Family Benefits	33.2	29.2	22.0	26.9	43.6	28.1	21.2	33.8	60.8	36.6	17.7	38.7	59.7	28.3	36.8
	before Housing Benefits	37.0	-	48.6	45.1	62.2	51.5	5.7	97.9	-	70.2	68.9	32.8	39.1	59.0	83.6
	before Other Contributory Benefits/Pensions	75.0	86.7	78.5	74.5	83.4	81.4	70.4	63.6	64.0	76.2	73.7	65.3	73.3	83.7	62.2
	before Unemployment Benefits	29.8	47.2	43.3	30.5	34.6	30.8	24.4	39.3	59.8	32.6	35.5	22.7	29.6	34.9	46.9
PRE	before Social Assistance Benefits	38.4	70.9	64.4	9.9	47.4	64.6	54.7	67.0	40.7	87.3	78.0	98.0	41.4	35.4	72.7
	before Family Benefits	25.6	23.1	12.7	14.6	31.2	16.0	18.5	29.7	53.6	28.4	14.3	36.1	52.7	14.8	33.6
	before Housing Benefits	30.2	-	31.5	34.9	52.9	37.5	5.1	66.8	-	65.8	49.6	3.0	28.8	25.3	68.3
	before Other Contributory Benefits/Pensions	41.9	52.7	61.4	48.8	46.1	46.6	42.6	49.6	32.2	45.0	52.4	38.6	42.3	51.4	43.7
	before Unemployment Benefits	26.9	26.2	39.5	37.7	33.5	37.6	20.6	18.5	12.5	32.1	36.7	46.8	31.7	39.9	9.6
S	before Social Assistance Benefits	17.1	10.5	20.7	48.7	20.8	19.0	8.6	15.3	23.4	8.3	9.1	2.0	19.7	57.1	12.5
	before Family Benefits	22.9	20.8	42.2	45.7	28.4	43.2	12.9	12.3	11.9	22.3	19.1	6.7	11.8	47.7	8.7
	before Housing Benefits	18.3	-	35.2	22.6	15.0	27.3	11.8	31.8	-	6.3	28.0	90.9	26.2	57.1	18.3
	before Other Contributory Benefits/Pensions	44.2	39.3	21.8	34.6	44.7	42.8	39.5	22.0	49.7	41.0	28.9	40.9	42.3	38.6	29.8
	before Unemployment Benefits	61.1	31.7	10.8	10.3	37.2	59.6	98.0	42.7	78.4	86.5	50.7	80.8	84.1	48.7	93.2
PGE($\alpha = 2$)	before Social Assistance Benefits	53.6	36.0	24.3	27.7	46.9	19.2	75.0	4.1	67.7	40.5	53.0	34.9	64.9	47.6	17.3
	before Family Benefits	38.7	30.8	52.6	32.8	28.7	55.4	93.8	37.0	70.6	18.5	79.8	52.0	85.7	71.0	57.9
	before Housing Benefits	93.9	-	82.0	46.3	44.7	79.5	100.0	97.6	-	97.3	91.2	100.0	99.3	72.8	48.2
	before Other Contributory Benefits/Pensions	4.2	5.2	5.8	1.2	3.9	5.8	24.5	17.2	29.6	3.7	11.9	20.7	20.8	9.9	25.3

VEE denotes vertical expenditure efficiency and is defined as (A + B) / (A + B + C) in Figure 9; ***PRE*** denotes poverty reduction efficiency and is defined as (A) / (A + B + C) in Figure 9: ***S*** denotes spillover and is defined as (B) / (A + B) in Figure 9; ***PGE*** denotes poverty gap efficiency and is defined as (A) / (A + D) in Figure 9;
Transfers to those below the poverty line are weighted equally when $\alpha = 1$, while transfers to the poorest are given more weight when $\alpha > 1$. Here we assume $\alpha = 2$.

The unit of analysis is individuals ranked by non-decreasing disposable equivalent household income.
The poverty line is held constant at the level of 60% of national median equivalent disposable (i.e. after all family transfers) income.
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

Table 12b - Target efficiency of family transfers

		AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
Children																
	before Unemployment Benefits	52.3	52.2	72.3	44.3	50.8	51.3	36.3	51.1	67.1	52.7	48.1	35.0	52.1	55.3	45.2
VEE	before Social Assistance Benefits	62.9	81.1	86.2	14.2	58.4	85.6	25.1	80.6	53.0	97.2	90.9	100.0	61.3	93.5	88.5
	before Family Benefits	29.4	30.0	15.9	23.5	49.3	14.8	11.1	30.8	60.8	21.6	14.3	45.5	48.8	29.6	47.3
	before Housing Benefits	49.4		51.8	32.4	61.9	35.4	-	99.8		69.7	82.7		1.6	47.6	78.6
	before Other Contributory Benefits/Pensions	82.5	86.3	76.7	44.7	82.5	85.1	64.7	67.5	61.6	82.7	75.4	55.5	72.9	83.6	74.3
	before Unemployment Benefits	34.1	34.5	43.2	25.6	36.3	35.9	36.3	42.7	59.3	49.0	26.7	25.6	43.6	29.9	45.2
PRE	before Social Assistance Benefits	57.5	72.0	69.3	7.3	52.4	76.9	19.4	68.1	41.2	83.8	82.1	95.5	50.1	40.1	76.2
	before Family Benefits	22.1	23.2	8.4	12.1	37.2	7.0	6.6	27.7	53.2	19.2	11.9	43.3	45.9	14.7	45.8
	before Housing Benefits	36.5		32.6	25.1	49.5	32.5	-	82.7		69.7	62.2		1.6	18.3	73.3
	before Other Contributory Benefits/Pensions	43.8	51.4	59.6	21.2	35.9	49.0	37.7	53.8	31.3	50.6	54.4	35.1	45.4	47.3	52.0
	before Unemployment Benefits	34.7	34.0	40.3	42.2	28.4	30.1	-	16.4	11.6	6.9	44.6	27.0	16.3	45.9	-
S	before Social Assistance Benefits	8.6	11.3	19.7	48.2	10.2	10.2	22.8	15.6	22.3	13.8	9.6	4.5	18.3	57.1	13.9
	before Family Benefits	24.9	22.8	47.3	48.5	24.5	52.6	40.6	10.2	12.6	11.2	16.7	4.9	5.9	50.4	3.0
	before Housing Benefits	26.1	-	37.0	22.5	20.0	8.1	-	17.2	-	-	24.7	-	-	61.5	6.8
	before Other Contributory Benefits/Pensions	46.9	40.5	22.2	52.6	56.4	42.4	41.7	20.2	49.2	38.9	27.9	36.7	37.7	43.3	30.0
	before Unemployment Benefits	64.5	34.4	6.7	2.9	16.8	46.8	94.6	37.6	77.9	65.7	49.6	92.2	76.4	51.7	96.1
PGE($\alpha = 2$)	before Social Assistance Benefits	64.2	37.9	5.0	9.7	37.7	13.3	96.0	4.2	66.3	21.9	54.8	37.5	53.8	25.3	16.3
	before Family Benefits	43.5	22.1	63.4	11.6	18.3	91.0	96.4	38.9	70.5	15.3	77.4	49.6	87.7	65.4	49.2
	before Housing Benefits	90.2	-	65.8	29.3	26.1	73.0	100.0	98.3	-	91.0	83.1	-	100.0	69.1	51.9
	before Other Contributory Benefits/Pensions	2.6	4.7	3.1	2.9	3.6	2.4	13.2	14.3	31.5	1.6	7.7	25.3	22.4	9.4	25.0

VEE denotes vertical expenditure efficiency and is defined as (A + B) / (A + B + C) in Figure 9; ***PRE*** denotes poverty reduction efficiency and is defined as (A) / (A + B + C) in Figure 9: ***S*** denotes spillover and is defined as (B) / (A + B) in Figure 9; ***PGE*** denotes poverty gap efficiency and is defined as (A) / (A + D) in Figure 9;
Transfers to those below the poverty line are weighted equally when $\alpha = 1$, while transfers to the poorest are given more weight when $\alpha > 1$. Here we assume $\alpha = 2$.

The unit of analysis is individuals ranked by non-decreasing disposable equivalent household income.
The poverty line is held constant at the level of 60% of national median equivalent disposable (i.e. after all family transfers) income.
Equivalence scale: modified OECD scale (values: 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members)

Table 13 - Target efficiency of family transfers: EU-15 averages

		Children	Total Population
VEE	before Unemployment Benefits	51.1	51.6
	before Social Assistance Benefits	71.9	70.4
	before Family Benefits	31.5	34.4
	before Housing Benefits	55.5	54.0
	before Other Contributory Benefits/Pensions	73.1	74.1
PRE	before Unemployment Benefits	37.9	36.1
	before Social Assistance Benefits	59.5	58.0
	before Family Benefits	25.2	27.0
	before Housing Benefits	44.0	38.4
	before Other Contributory Benefits/Pensions	44.6	46.3
S	before Unemployment Benefits	29.1	30.0
	before Social Assistance Benefits	19.1	19.5
	before Family Benefits	25.1	23.8
	before Housing Benefits	24.9	29.9
	before Other Contributory Benefits/Pensions	39.1	37.3
PGE	before Unemployment Benefits	54.3	58.2
(α = 2)	before Social Assistance Benefits	36.3	40.8
	before Family Benefits	53.4	53.7
	before Housing Benefits	73.2	81.0
	before Other Contributory Benefits/Pensions	11.3	12.6

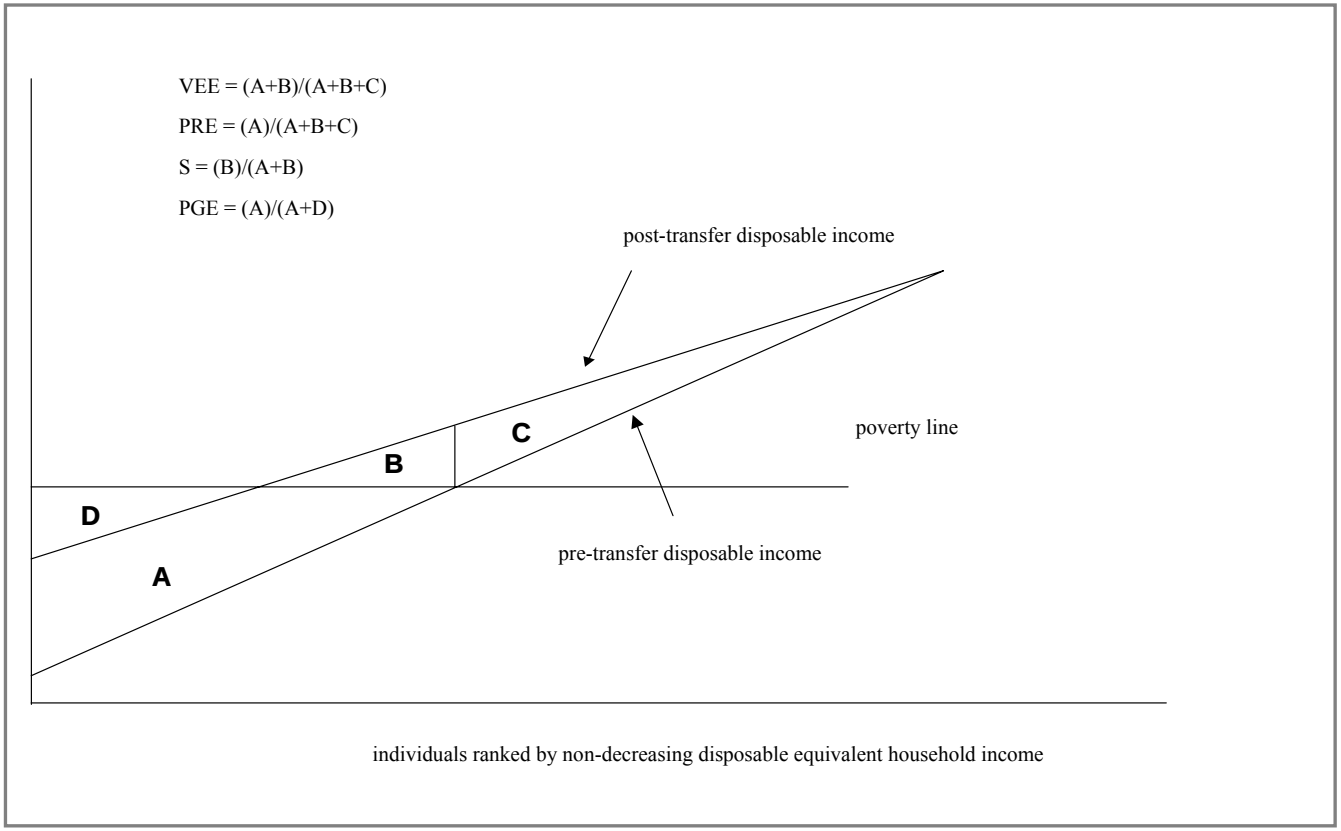
Note: the table report unweighted averages for 15 countries from tables 12a and 12b. ***VEE*** denotes vertical expenditure efficiency and is defined as (A + B) / (A + B + C) in Figure 9; ***PRE*** denotes poverty reduction efficiency and is defined as (A) / (A + B + C) in Figure 9: ***S*** denotes spillover and is defined as (B) / (A + B) in Figure 9; ***PGE*** denotes poverty gap efficiency and is defined as (A) / (A + D) in Figure 9; transfers to those below the poverty line are weighted equally when $\alpha = 1$, while transfers to the poorest are given more weight when $\alpha > 1$. Here we assume $\alpha = 2$.

Table 14 - Target efficiency of family transfers: summary table

		High target efficiency		Low target efficiency	
		Children	Total	Children	Total
before Unemployment Benefits	VEE				
	PRE				GR, PT
	PGE	GR, IT, SP, PT, UK	GR, LU, IT, PT, SP, UK	DK, FI, FR	DK, FI
before Social Assistance Benefits	VEE	BE, DK, GE, IR, LU, NL, PT,SW, UK	BE, DK, GE, IR, LU, NL, PT, SW, UK	FI	FI
	PRE	GE, LU, NL, PT	LU, NL, PT	FI, GR	
	PGE	GR	GR	DK, FI, GE, IR, LU, UK	DK, GE, IR, UK
before Family Benefits	VEE			DK, FI, GE, GR, LU, NL	DK, GR, NL
	PRE			AT, BE, DK, FI, GE, GR, LU, NL, SW	BE, DK, FI, GE, GR, NL, SW
	PGE	GE, GR, NL, SP	GR, NL, SP	BE, FI, FR, LU	LU
before Housing Benefits	VEE	IR, NL, UK	IR, UK	SP	GR
	PRE	IR		SP	GR, PT
	PGE	AT, GR, IR, LU, NL, SP	AT, DK, GE, GR, IR, LU, NL, PT, SP		
before Other Contributory Benefits/Pensions	VEE	AT, BE, DK, FR, GE, LU, NL, SW	AT, BE, DK, FR, GE, LU, SW		
	PRE			FI	
	PGE			AT, BE, DK, FI, FR, GE, GR, IR, LU, NL, SP, SW, UK	AT, BE, DK, FI, FR, GE, GR, IR, LU, NL, PT, SP, SW, UK

Note: "High" and "Low" target efficiency are defined as values above the 75% and below the 25% threshold, respectively, for each of the target efficiency indicators reported in tables 12a and 12b.

Figure 9 -Target efficiency of family transfers.



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