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Social Inclusion and Income Distribution in the European Union - 2007

Monitoring Report prepared by the European Observatory on the Social Situation - Social Inclusion and Income Distribution Network

European Commission
Directorate-General "Employment, Social Affairs and Equal Opportunities"
Unit E1 - Social and Demographic Analysis

Manuscript completed in December 2007

European Commission

Social Inclusion and Income Distribution[1]

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A special thank for her practical help to Ayse Bugra from the Social Policy Forum of Boğaziçi University in Istanbul.

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[1] *The views expressed in this document are those of the authors and do not necessarily represent those of the European Commission.*

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CHAPTER 1 — INCOME DISTRIBUTION IN EU MEMBER STATES: FIRST REFLECTIONS ON THE EU-SILC DATA[2]

INTRODUCTION

The first part of this chapter presents comparative estimates of income inequality based on data from the 2005 EU-SILC (Community Statistics on Income and Living Conditions). It draws attention both to the inter-country differences in income inequality across the European Union as well as to the fact that the ranking of countries in terms of inequality is sensitive to the choice of measurement. More precisely, it investigates the effect of sampling variability and the choice of equivalence scales and the inequality index on the ranking of countries in these terms.

The second part of the paper (section 4) investigates inter-country differences in the effect of age, education and employment on the distribution of household incomes by applying static and dynamic decomposition analysis. The main aim is to present a cross-country comparison of the overall effect of age, education and employment on the distribution of household incomes.

THE DATA AND METHODS OF ANALYSIS

Description of the data

The analysis is based on data from the 2005 EU-SILC, which cover 25 Member States together with Norway and Iceland. The data relate to the population living in private households in the country in question at the time of the survey. Those living in collective households and institutions are, therefore, generally excluded. The income concept used in the analysis is annual net household disposable income, including any social transfers received and excluding direct taxes and social contributions. The reference period is the year 2004 except for Ireland where it is the twelve-month period before the date of the interview. Incomes of all household members and other household incomes are aggregated together and total household disposable income is adjusted for differences in household size and composition by use of an equivalence scale. The equivalised income so calculated is then assigned to each household member. The inequality indices reported here are estimated on the basis of these figures.

[2] The authors are: István Tóth, Márton Medgyesi, András Gábos (TÁRKI).

Non-positive income values – which result from the way that the income of the self-employed is defined, i.e. essentially in terms of net trading profits – have been excluded from the analysis. In order to tackle the problem of 'outliers' (i.e. extreme levels of income reported), a bottom and top coding procedure (or 'winsorising') has been carried out. (Specifically, income values at the bottom of the ranking of less than the 0.1 percentile were replaced by the value of the 0.1 percentile, while at the top of the ranking, values greater than the 99.95 percentile were replaced by the value of this percentile.)

The choice of an equivalence scale

Equivalence scales are used in inequality research to adjust household incomes for differences in household size, taking into account economies of scale in consumption and differences in household composition. Economies of scale in household consumption make it possible for members of larger households to achieve the same standard of living with smaller per capita household income. They arise mostly from household 'collective goods' (such as housing, utilities and consumers durables), which can be 'consumed' or enjoyed by all household members. Equivalence scales might also reflect differences in household composition. For example, expenditure on children's consumption might typically be less than expenditure on an adult's consumption. Unfortunately equivalence scales cannot easily be estimated by observation of household consumption behaviour and the research studies on inequality or poverty invariably adopt some widely used equivalence scale, such as, in particular, those advocated by the OECD. But because the choice of such an equivalence scale is largely arbitrary, it is important to investigate the sensitivity of results to different scales.

The analysis here uses the so-called modified OECD, or OECD II, scale, which assigns a value of one to the first adult in the household, 0.5 to additional members of 14 and over and 0.3 to children under 14. As a sensitivity check, inequality and poverty indices are also calculated using the OECD I scale, according to which additional household members are given a weight of 0.7 and children one of 0.5. The OECD I scale, therefore, assumes that economies of scale in the household are smaller than the OECD II scale.

Theoretical analysis by Coulter et al. (1992) suggests that modifying assumptions regarding economies of scale have both an inequality increasing and an inequality decreasing effect. According to this analysis, assuming smaller economies of scale in household consumption results in less inequality if household income is positively correlated with household size. On the other hand, assuming smaller economies of scale can result in a re-ranking of households in such a way that inequality is increased. Coulter et al. suggest that at a high initial level of economies of scale, the inequality reducing effect of assuming smaller economies of scale is

dominant, while at a lower initial level of economies of scale, the inequality increasing effect becomes stronger.

The choice of an inequality index

Researchers have proposed several indices for inequality measurement[3]. The concern here is to examine the most widely used ones. Countries are ranked, first, according to the Gini index[4] and this ranking is then compared with those given by other indices. The first group is composed of the P90/P10 index, which is the ratio of the ninetieth to the tenth percentile of the income distribution, and the S80/S20 index, which is the ratio of the share in total income of those in the top quintile to those in the bottom quintile of the distribution.

The second group consists of the Generalised Entropy family of indices, the MLD[5], the Theil[6] and the Squared Coefficient of Variation (SCV)[7] indices. The SCV index is known to be sensitive to high incomes in the distribution (Cowell and Flachaire, 2006), while the MLD and Theil indices are not particularly sensitive to the two tails of the distribution.

The third group of indices is the Atkinson family of inequality indices[8], which is based on a constant elasticity social welfare function[9], where the elasticity parameter (ϵ) can be interpreted as a measure of aversion to inequality, which means that increasing the income of any individual brings about a smaller increase in social welfare, the higher his or her income. In other words, the weight given to a person's welfare in the social welfare function is assumed to decline with their income. If their income increases by 1%, therefore, the weight attached to changes in their welfare is assumed to decline by ϵ%. The analysis here examines the results of assuming three alternative values of ϵ, the elasticity parameter, of 0.5, 1 and 2 The index calculated on the basis of the inequality aversion parameter $\epsilon=2$ is very sensitive to low incomes in the distribution (Cowell and Flachaire, 2006). In general, it can be expected that

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[3] For reviews of inequality measurement, see for example Cowell (2000).

[4] Gini= $(1/2n((n-1))\Sigma_{i=1,\dots,n}\Sigma_{j=1,\dots,n}|y_i-y_j|$, where y_i are individual incomes, n is sample size.

[5] GE(0) = Mean Log Deviation index = $(1/n)\Sigma_{i=1,\dots,n}\log(\mu/y_i)$, where y_i are individual incomes, n is sample size, μ is sample mean income.

[6] GE(1)= Theil-index = $(1/n)\Sigma_{i=1,\dots,n}(y_i/\mu)\log(y_i/\mu)$, where notations are the same as above.

[7] GE(2)=SCV=var$(y_i)/\mu^2$, where notations are the same as above, and *var* stands for variance.

[8] Atkinson-index: $A_\varepsilon = 1 - [(1/n)\Sigma_{i=1,\dots,n}(y_i/\mu)^{1-\varepsilon}]^{1/(1-\varepsilon)}$, if $\varepsilon \geq 0$ and $\varepsilon \neq 1$ and $A_\varepsilon = 1 - \exp[(1/n)\Sigma_{i=1,\dots,n}\ln(y_i/\mu)]$, if $\varepsilon = 1$, where the notations are the same as above. exp(.)=$e^{(.)}$, and ε is the inequality aversion parameter.

[9] See Atkinson, A.B. (1970).

indices particularly sensitive to the tails of the distribution would produce rankings less similar to the Gini ranking as compared with other indices.

Standard errors of estimates

In order to draw policy conclusions from inequality and poverty data, it is essential to take account of the fact that they are derived from surveys of a sample of households and inevitably, therefore, involve some margin of error. Accordingly, the incomes observed are not those of all households but only of those of the selected sample, which nevertheless is intended to be representative of the total. To make meaningful comparisons between countries or over time, it is necessary to allow for the margin of error arising from sampling, which can be done by calculating the standard error of the estimates and taking confidence intervals around this. Such standard errors might be based on asymptotic theory or on simulation methods such as the bootstrap. In the present analysis, bootstrap standard errors of the Gini coefficient are examined. Confidence intervals are reported on the basis of the "percentile method", which divides the estimated sample distribution into 100ths, with the lower bound being the 2.5th percentile and the higher bound the 97.5th percentile. (The confidence interval estimates are based on 1000 replications and those reported are also corrected for estimation bias.)

RESULTS

Inequality in the EU

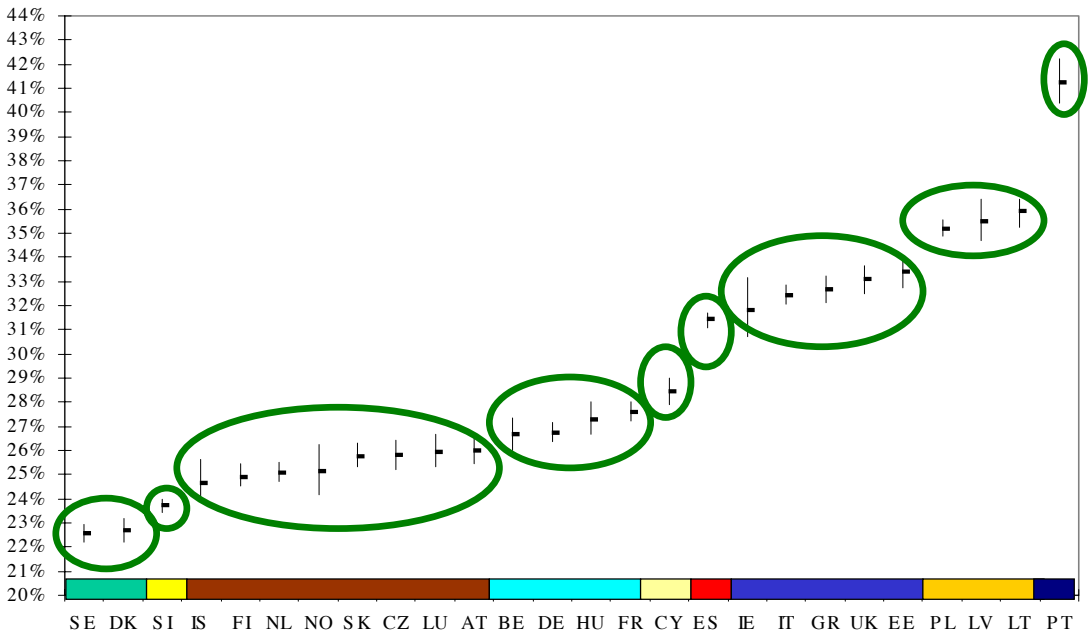
The ranking of countries is presented, first, according to the Gini coefficient of inequality together with the changes in inequality over the first half of the present decade. This is followed by a sensitivity analysis of the estimates of inequality so obtained by comparing the ranking of countries according to the Gini to rankings obtained with other inequality indices, as well as by changing the equivalence scale.

GINI RANKINGS AND THE CHANGE IN INEQUALITY

Figure 1 shows the ranking of countries according to the Gini index as well as the 95% confidence intervals around the estimates. Portugal stands out as the country with the highest inequality with a Gini index of 41%. The new Member States of Lithuania, Latvia and Poland form a second group of countries with Gini coefficients around 35-36%. A third group of relatively high inequality countries is composed of the Southern European countries of Spain, Greece and Italy, the Anglo-Saxon countries of the UK and Ireland and the new Member State of Estonia. These countries have Gini indices above 30% but below 35%.

At the other extreme, countries with lowest inequality by this measure are Sweden, Denmark and Slovenia with Gini indices of below 25%. Between the low and high inequality countries there are a number of countries with Gini indices above 25% but below 30%. Differences in the indices between countries in this group are often very small, confidence intervals of the estimates overlapping in many cases. The Nordic countries of Finland, Iceland and Norway, together with the Netherlands are at the lower end of this group, while Hungary, France and Cyprus are at the upper end.

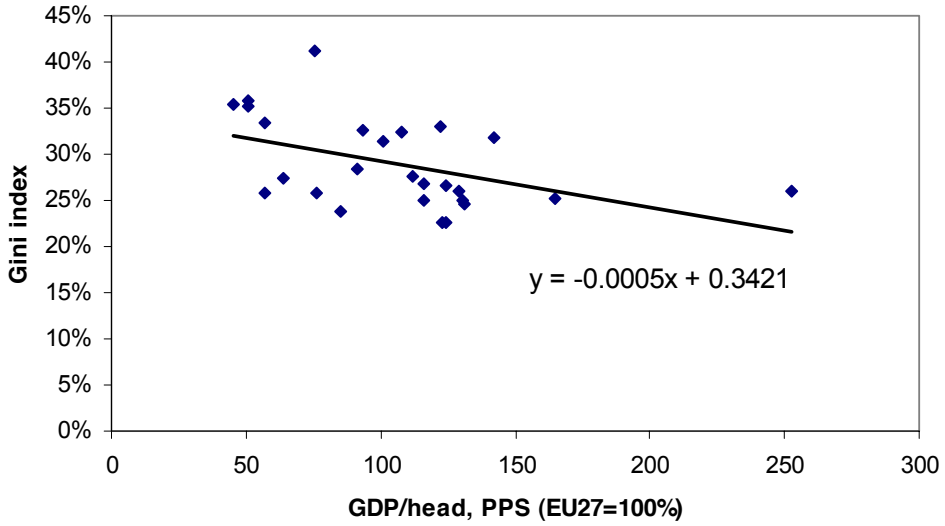
Fig 1. Gini indices and bootstrapped 95% confidence intervals



Note: Bootstrap confidence intervals were obtained by 1000 replications

As high inequality countries in Europe are mainly relatively low income transition countries (the Baltic States and Poland) or Southern European countries (Portugal, Greece), while low inequality countries (in particular as the Nordic Member States or Luxembourg) tend to have high income levels, it is not surprising that there is a negative relationship between the level of income and inequality (Figure 2).

Fig 2. Inequality and national income in 2004



Comparison of the degree of inequality in income distribution in 2004 with that in earlier years is complicated by the change in the source of data used for estimation. While the 2004 estimates are based on the EU-SILC, those for earlier years (for 2000 and earlier) are based for the EU15 countries on the ECHP (which covered a much smaller sample of households) and for others on national sources (which vary in terms of sample size). There is no easy way of adjusting for the effect of this change on the estimates. All that can be said is the larger the difference between the two estimates, the more likely it is that there was a change – either up or down – between the two years compared.

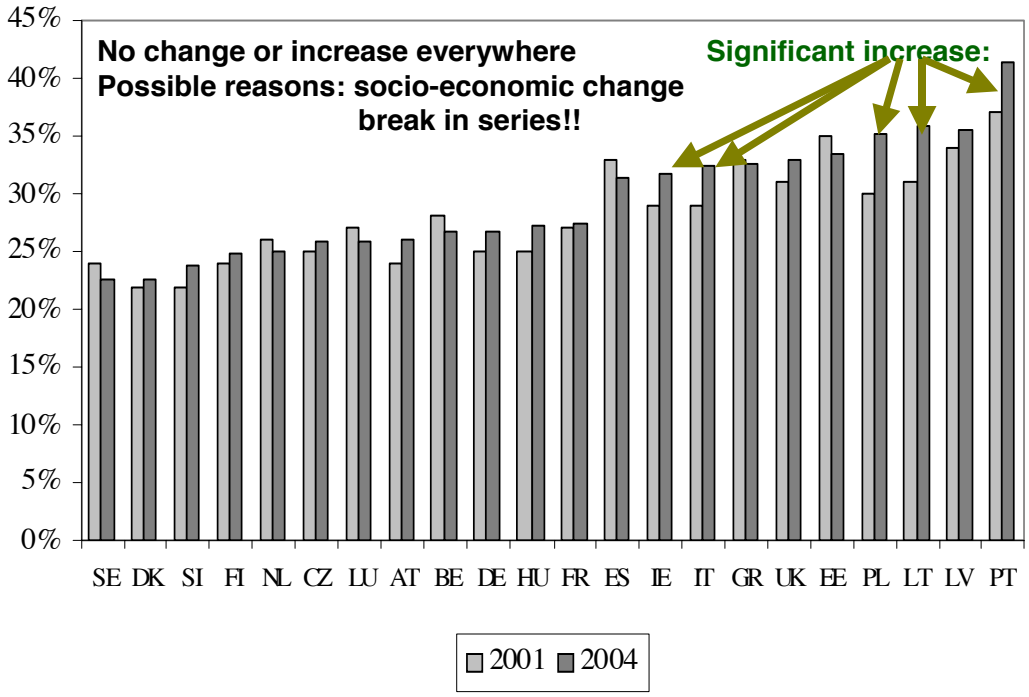
If, therefore, Gini coefficients in 2004 are compared with their values in 2000 (see Fig 3), relatively large increases (over 10%) are evident in Portugal, Italy, Ireland, Poland and Lithuania, while in a number of other countries – the UK, Ireland, Hungary, Latvia, Slovenia, Austria and Germany – the increase is more modest. Given the change in data source, it is more likely that the degree of inequality increased in the former group of countries than in the latter. In Sweden, Belgium, Luxembourg, Estonia, Spain and the Netherlands, on the other hand, the Gini coefficients were lower in 2004 than in 2000, though the difference is relatively modest so it is uncertain whether inequality declined or not between the two years. In the remaining countries, little change is evident.

The ranking of countries according to the Gini index in 2004 shows some minor differences compared to the ranking for 2001[10]. Portugal was also the most unequal country in 2000, but

[10] Data for 2000 come from the Eurostat online database (see next page):

for Poland and Lithuania, values of the index were lower than in Spain, Greece and Estonia, whereas in 2004 they were higher. The least unequal countries were the same in 2000 as in 2004, while among countries in between the highest and lowest groups, there are a number of smaller differences in the country ranking. Again, however, except among the most unequal countries, it is uncertain how far the ranking actually change between the two years.

Fig 3. Gini indices in 2001 and 2004



Note: 2001 Gini indices are from NewCronos. Countries are ranked according to 2004 Gini indices.

Changes in equality and growth

The question arises as to whether there is any relationship between changes in inequality and the growth experience of countries, given the caveats concerning the changes observed. In Table 1, changes in inequality (denoted by the colour) in the different countries are compared with rates of GDP and employment growth. The prior expectation is that "jobless growth" would

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http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/livcon/ilc/ilc_ip/ilc_di&language=en&product=EU_MASTER_living_conditions_welfare&root=EU_MASTER_living_conditions_welfare&scrollto=164

Data for EU15 countries come from the ECHP, data for other countries from national sources. Note that the data are referred to in the Eurostat database as relating to 2001, which is the year of the survey rather than the year to which the income relates.

be likely to lead to an increase in inequality, since in these cases the main source of economic growth is increasing productivity and this is likely to raise inequalities in earnings[11].

The table shows that it is difficult to find consistent patterns in the short run growth and inequality experience of European countries. Countries where inequality increased by most over this period had diverse growth and employment experiences. In both Portugal and Italy, GDP growth was relatively low between the two years, but while in Portugal employment declined, in Italy, it increased, yet in both cases, income inequality increased. Similarly, Poland and Lithuania also experienced similar rates of GDP growth but different changes in employment and in both countries, inequality once again increased. Equally, growth and employment experience differed in countries where inequality declined. For example, inequality declined in Luxembourg and Spain, in both of which, GDP increased between 10 and 15%, but employment fell in the former and rose in the latter.

[11] In other words, if the rate of GDP growth is the same as between two countries but in one this is achieved predominantly through higher productivity and in the other more though higher employment, it might be expected that the degree of inequality would fall by more or increase by less in the latter than the former.

Table 1. Interrelationships between growth, employment and inequality change

	Change in total employment 2001–2004			
GDP increase 2001–2004	Decrease (<–1%)	Small decrease (–1%–0)	Small increase (0–+2%)	Large increase (>+2%)
0–5%	**Portugal** Netherlands	Germany Denmark		**Italy**
5–10%	Norway Sweden	Austria Finland	Belgium France UK	
10–15%	**Poland** Iceland	Czech Republic Luxembourg	Cyprus Slovenia	Spain
15–%			Hungary Slovakia **Ireland**	Latvia **Lithuania** Estonia Greece

Note: Countries marked red bold are those where the Gini index rose by more than 10% between 2001 and 2004. Countries marked red are those where the Gini index rose by 3% to 10% between 2001 and 2004.Countries marked green are those where the Gini index decreased by more than 3% between 2001 and 2004. In countries marked black there was no significant change in the Gini index (change was less than ± 3%). Data on GDP growth and employment are from the NewCronos database.

Sensitivity analysis

The choice of equivalence scales affects the ranking of countries. As is evident in Figure 1 and 2 in the Appendix to the chapter, the Gini index tends to be lower when the OECD II (i.e. the modified) scale is used. Changes in the equivalence scale, however, affect countries to differing extents, reflecting the fact that countries vary in terms of typical household size, the number of children per household and the correlation of household size with household income (i.e. the degree to which higher income households are concentrated in the upper or lower end of the income distribution). All of these factors influence the effect of a change in the equivalence scale on the ranking of countries in terms of inequality.

Changes in the rankings are small when the Gini coefficient is used to measure inequality. Spain, the UK and the Netherlands move up the rankings if the OECD I (i.e. unmodified) scale is used instead of the OECD II scale, while Germany moves down. Changes in the country ranking

due to modifications of the equivalence scale are more pronounced when the S80/S20 index is used to measure inequality. The UK moves up to fourth place in the ranking, with a more unequal distribution than Latvia or Estonia as well as Greece and Italy. Spain also moves up ahead of the latter two countries. Among the group of middle-level inequality countries, there is less change, though the Netherlands in particular moves up slightly, and among the countries with the smallest inequalities, hardly any change at all. For most countries, therefore, it makes relatively little difference whether the OECD modified or unmodified scale is used when measuring inequality in terms of the Gini index or the S80/S20 ratio. For a few countries, however, it has a significant effect on the estimates of inequality and their ranking in this regard as compared with other countries.

It is also relevant to examine the sensitivity of the country ranking to the choice of the inequality index used. Figures 3 to 7 of the Appendix show the values of the different indices, with the country ranking on the horizontal axis as given by the Gini coefficient. The country ranking according to the P90/P10 index and the S80/S20 index is closely in line with the Gini ranking, with only minor differences. If the P90/P10 index is used instead of the Gini index, Poland switches place with Latvia among the high-inequality countries, while Spain and Greece also move up the ranking. Among the other countries, the main change is that Norway moves down to the group of less unequal countries.

If the S80/S20 index is used instead of the Gini, the Netherlands and Slovakia move up to the upper part of the group of medium-inequality countries. Among the high inequality countries, Spain and Greece move up the ranking, while the UK and Ireland move down.

The second group of inequality indices examined are those belonging to the generalised entropy family. The main differences in the country ranking if the MLD is used in place of the Gini is that among medium-inequality countries Norway moves up in the ranking and among high-inequality countries Spain moves up ahead of Ireland, while Italy also moves up. If the Theil index is used instead, Ireland and the UK both move up the ranking, while Norway moves up and joins the group of high inequality countries.

If inequality is measured by the square of the coefficient of variation (SCV) index is used, the country ranking shows some major differences as compared with that obtained from using the Gini. It should be borne in mind, however, that the SCV is particularly sensitive to high incomes and is, therefore, affected more by outliers than other measures, so that the results should be interpreted with caution. The biggest differences are that Hungary moves up the ranking to the group of high inequality countries with a similar SCV index to Greece and Norway moves up to second place with the most unequal distribution of income apart from Portugal. Within the group of high-inequality countries, Ireland, the UK and Latvia move up in the rankings. Among

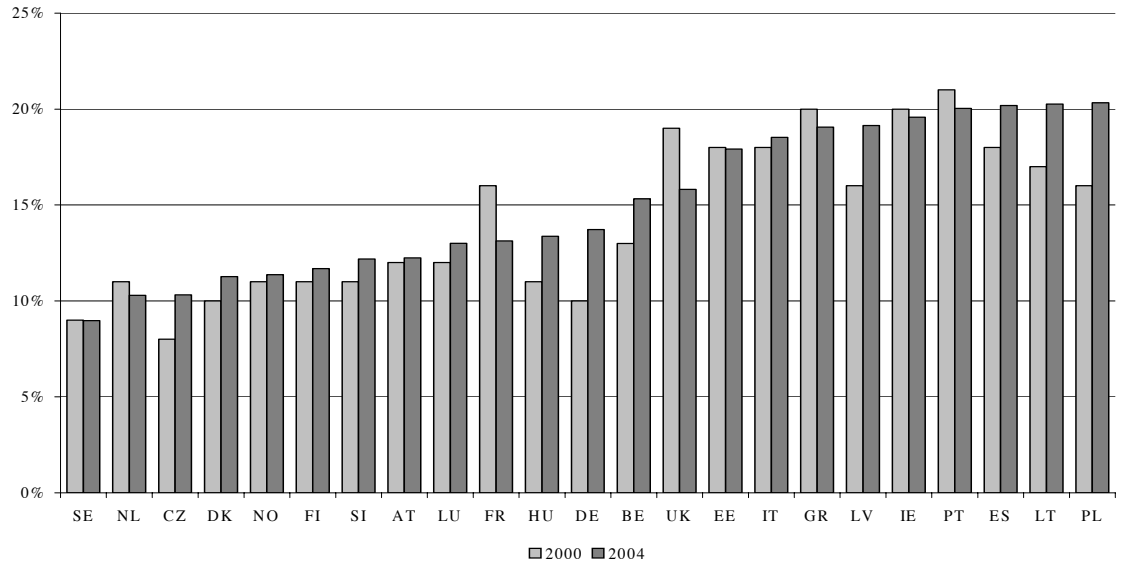
the medium-inequality countries, the Netherlands and Luxembourg move down the ranking to the lower end of the group.

Rankings according to the Atkinson family of indices with $\epsilon=0.5$ and $\epsilon=1$ parameters are very similar to the ranking obtained by using the Gini index. The only significant difference is that Norway moves up to the upper end of the medium-inequality group of countries. The ranking according to the index with $\epsilon=2$ is different from the Gini ranking, as would be expected since this index is particularly sensitive to the lower tail of the distribution. According to this index, countries at the lower end of the ranking, Sweden, Denmark, Slovenia and Iceland, have values which are not very different from those of the medium-inequality countries. At the upper end of the ranking the main difference again concerns Norway, which moves up to the group of high-inequality countries. Among the high inequality countries, Spain becomes the second most unequal country after Portugal while Italy also moves up the ranking.

The risk of poverty in the EU

The risk of poverty rate used in this part of analysis is based on the same relative income concept as the inequality indices examined above. The poverty threshold was set at 60% of median equivalised household income. As in the case of inequality, the sensitivity of the country rankings in terms of this measure is examined in relation to whether the OECD modified or OECD unmodified equivalence scales are used. Figure 4 shows the risk of poverty rates across EU countries in 2004, as well as in 2000, as conventionally measured using the OECD modified scale.

Fig 4. Risk of poverty rates across European countries in 2000 and 2004



Source: ECHP (2000) and EU-SILC (2004)

Note: Countries are ranked according to year 2004.

Countries with the highest risk of poverty rates in Europe are those in Eastern and Southern Europe. One-fifth of the national population are estimated to have income below the poverty threshold in two new Member States, Poland and Lithuania, and two Mediterranean countries, Spain and Portugal, as well as in Ireland. The relative number of people concerned is also relatively high (18-19%) in other Eastern and Southern countries, Estonia, Latvia, Greece and Italy. The Nordic countries – specifically Denmark, Sweden and Norway – are at the opposite end of the scale with risk of poverty rates of 9-11%, together with a new Member State, the Czech Republic, and the Netherlands. Other countries, mainly other EU15 countries, have risk of poverty rates of between 12-16%.

The ranking of countries according to the risk of poverty rate is broadly similar to the inequality ranking as measured by the Gini index, but there are some differences. Low inequality countries tend also to be low poverty countries, while high inequality countries also tend to have relatively high risks of poverty, but the order of countries is not the same within these two broad groups. The biggest difference concerns Spain which has the third highest risk of poverty rate but the tenth highest value of the Gini index. Slovakia, Slovenia and the UK also rank higher in terms of the risk of poverty than inequality, while Estonia, Latvia and France rank higher in terms of inequality than poverty.

While there are differences in both the scale of the risk of poverty and the ranking of countries in this regard between 2000 and 2004, these need to be interpreted with caution because of the change in data source as explained above. Again it is the case that these differences are

more likely to reflect reality, at least in terms of the direction of change, the larger they are. Risk of poverty rates, as measured, were higher in 2004 than in 2000 in most European countries. The biggest apparent increases were in Poland (from 16% to 20%), Germany (from 10% to 14%), Lithuania (from 17% to 20%) and Latvia (from 16% to 19%). On the other hand, in contrast to the widespread trend, risk of poverty rates appear to have declined in France (from 16% to 13%) and the UK (from 19% to 16%). In general, however, countries with the highest poverty rates in 2004 also had the highest rates in 2000 and the same was the case as regards those with the lowest rates, the main change being that Germany was ranked among the countries with the lowest rates in 2000 but not in 2004.

If the risk of poverty rates are estimated using the OECD I instead of the OECD II scale, there are no significant differences for most countries (see Figure 9 of the Appendix). The main exception is the UK, where the risk of poverty rate calculated using the OECD I scale is much higher than that calculated on the basis of the OECD II scale (21% as against 16%). In Ireland (18% as against 20%) and Denmark (9% as against 11%), the rate is reduced though by much less.

THE EFFECT OF AGE, EDUCATION AND EMPLOYMENT ON INEQUALITIES: DECOMPOSITION ANALYSIS

This section examines the main driving forces underlying inequalities. As earnings from employment are the most important part of household income, the focus is on the effect of household members being in work as well as on age and education, which are among the main determinants of earnings. According to human capital theory, therefore, those with higher levels of educational attainment enjoy higher wages because of their higher productivity. Workers also accumulate know-how while working which also tends to increase their productivity, so experience also tends to give rise to higher wages.

A common argument is that increasing inequality of earnings in developed countries is a result of technological change, which tends to increase the productivity of higher educated workers relative to the lower educated. If in the short-run the supply of educated people fails to match the increase in the demand, the premium for education will tend to increase. Sudden technological changes might also cause a change in the steepness of the age-earnings profile, in that, for example, the education of younger people may be more adapted to requirements of new technology than the education and skills of older workers. In this case, demand will increase more for the young who are well educated and less for older workers which will result in a less steep age-earnings profile. The effect of age, education and employment are examined below by applying static and dynamic decomposition of inequality indices. While this

method is not suitable for uncovering true, causal relationships, it is a first step and gives intuitive results, which can then be confirmed by more elaborate analysis.

Methodology of decomposition analysis

Some inequality indices are additively decomposable, which means that they can be written as the sum of two components: a weighted sum of within-group inequalities and between-group inequality, or that which would be observed if incomes of all individuals were replaced by their respective group means. A convenient family of additively decomposable inequality indices is the Generalised Entropy family, which, as indicated above, comprises the Theil statistic, the mean log deviation (MLD), and the square of the coefficient of variation (SCV).

The concern is to investigate the effect of being in employment, age and education level on the distribution of income. The relevant question to consider in this regard can be formulated in two ways. The first is how much inequality would be observed if age (or education or employment) were the only source of income dispersion. The second is by how much would income inequality be diminished if, starting from the actual distribution, income dispersion due to age (or education, employment etc.) were to be eliminated by making age group means identical while preserving within-group inequality.. The MLD index is selected here to perform the calculations because, as argued by Shorrocks (1980), in this case, answers to the two formulations coincide[12]. In this case, decomposition weights are simply population shares of different groups; the within group component is, therefore, the sum of within group MLD indices weighted by the population shares of the respective groups[13]. The same methodology has been used by a number of authors to investigate the effect of various individual or household attributes on income inequality (for example, Jenkins, 1995). Since the sum of between group and within group inequalities equals total measured inequalities, the various components can be expressed in percentage terms. The proportion of within group inequalities attributable to age, education and employment of the household head are compared across the countries below.

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[12] The two approaches have the same between-group effect only if the decomposition weights do not depend on the group means, as in the case of the MLD index.

[13] Formally, v_k refers to the share of k subgroups in total population, $v_k = n_k/n$, and λ_k to the ratio of average incomes of a k subgroup to the average incomes of the total population, $\lambda_k = \mu_k/\mu$, and θ_k to the share of k subpopulation from total incomes in the population, $\theta_k = v_k \lambda_k$. Total inequality, as measured by the MLD index, can be decomposed as the sum of two components: $MLD = \Sigma_k v_k MLD_k + \Sigma_k v_k \log(1/\lambda_k)$.

The first part of the right hand side of the equation relates to the "within group" inequalities: it denotes the weighted average of inequalities within the subgroups. The second part of the expression relates to "between group inequalities": the part of inequalities which would remain if the income of each individual in a subgroup were replaced by the average of the subgroup.

In addition to this static decomposition, a decomposition of changes in inequality over time is also carried out following the method used in *Mookherjee-Shorrocks* [1982][14], which decomposes changes into three components. The first is the "pure" effect of an increase in inequality, that is, the effect attributable to increases in within-group inequalities. The second component is the effect of structural change due to changes in the population shares of the various sub-groups, while the third component measures the effect of changes in the mean incomes of the various subgroups. For a clearer understanding of decompositions according to these different elements, it is useful to show changes in *relative* terms: the change in inequality between the two years attributable to each factor in relation to the overall change in the MLD index.

The data used for the dynamic decomposition analysis are from the CHP or from national sources for 2000, which are then compared with data from the EU-SILC for 2004. As emphasised above, it is important to keep in mind that the data sources used differ in terms of methodology[15] and survey size, so that the changes calculated should be interpreted with caution. The analysis is carried out on the basis of equivalised household income using the OECD modified scale. Variables used for grouping in the decomposition analysis are based on the attributes of the (assumed) head of the household in which people live. Since no household head is defined in the EU-SILC, this is taken to be the oldest man of working age (18- 64). If there is no man of working age, then the oldest woman of working age is taken as the household head instead. If there are no members of the household of working age, the oldest man of 65 or older is taken as the household head or the oldest woman if there is no man. The same definition of the head of household has been applied to the ECHP data. For simplicity of the analysis, attributes of the household head are assumed to apply to all household members, which obviously qualifies the findings.

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[14] The change in the MLD index between two time periods, *t* and *t + 1* can be written, following *Jenkins* (1995), as:

$$\Delta MLD \equiv MLD_{(t+1)} - MLD_{(t)}$$

$$\cong \quad \Sigma_k \underline{v}_k \Delta MLD_{(k)} \quad + \Sigma_k \underline{MLD}_{(k)} \Delta v_k \quad - \quad \Sigma_k [\underline{\lambda_k - \log(\lambda_k)}] \Delta v_k \quad + \Sigma_k (\theta_k - \underline{v}_k) \Delta \log(\mu_k).$$

[*A* component] [*B* component] [*B* component] [*D* component],

where component A denotes the change in inequality due to change in within-group inequalities, component B denotes the change due to changes in population structure and component C denotes the change due to changes in group means.

[15] On the difference between the methodologies of the surveys, see Eurostat (2005).

Results of decomposition analysis

The results of the static decomposition analysis are summarised by reviewing the importance of each explanatory factors in turn (see Figures 10 to 13 and Tables 2 to 4 in the Appendix for the full results).

THE EFFECT OF THE AGE OF HOUSEHOLD HEAD

In general age is a less important factor in explaining inequalities than the education level or employment status of the household head. With the exception of five countries, age differences account for less than 5% of total inequality as measured by the MLD index. Age differences are most important in the Nordic countries and Cyprus. In Denmark, the between-age-groups component of inequality amounts to 13% of the total, in Sweden, to 10% and in Norway and Finland, to 6-7%, while in Cyprus, age accounts for 8% of total inequality. On the other hand in Poland, Luxembourg, Portugal, Austria, Hungary and Greece, the age of the household head explains less than 2% of overall inequality.

In the countries where the effect of age is relatively important, this arises from income differences both among those of working age and between these and those aged 65 and over, almost all of whom are retired. In Denmark, incomes of those between 50 and 64 years of age are 41% higher than of those between 18 and 35 and 56% higher than incomes of those of 65 and older. The pattern in Norway and Sweden is similar. In Cyprus, the effect is mainly due to the low incomes of those aged 65 and over, whose average income is only 66% of the national average, much less than in the other countries covered. Relative incomes of the elderly are also low in the Baltic States, the UK and, most especially in Ireland. In contrast, the elderly enjoy a relatively favourable level of income in Austria, France and the Netherlands, where their average income is close to the national average, or slightly higher in the case of Poland.

THE EFFECT OF THE EDUCATION LEVEL OF HOUSEHOLD HEAD

In general, education is more important in explaining income differences than age but the effect differs markedly among the countries covered. In some countries – in particular, in Iceland, Norway, Denmark, Sweden, Germany Austria and France – education accounts for less then 10% of income inequality as measured by the MLD index. . In a second group of countries – the Netherlands, Belgium, Italy, Spain, Finland, the UK, the Czech Republic, Latvia and Estonia –education accounts for 10-15% of income inequality, while in Portugal, Cyprus, Greece, Ireland, Luxembourg, Hungary, Lithuania, Slovenia and Poland, it accounts for over 15%.

Income differences between those with different education levels can be important at both the lower and upper ends of the distribution. Relative incomes of those with low education levels are lowest in the UK, Lithuania, Estonia, Latvia, the Czech Republic and Poland, where average

income of those with only basic schooling is around 70% of the national average. Average incomes of those with tertiary education are highest in relative terms in Portugal, where incomes of those with a university diploma exceed the national average by 226%. Relative incomes of those with tertiary education are also high in Poland, Latvia, Lithuania, Hungary, Slovenia and Italy, where they exceed the national average by 60%.

THE EFFECT OF THE EMPLOYMENT STATUS OF HOUSEHOLD HEAD

There is also a great variability in the effect on inequality of the employment status of the household head. In some countries, income differences as regards employment status account for less than 5% of income inequality. These are France, Austria, Netherlands, Luxembourg, Italy, Greece, Portugal and Cyprus. In Poland, Slovakia, Slovenia, Hungary, Norway, Sweden, Germany and Spain, it accounts for 5-10% of the difference and in the three Baltic States, Ireland, the UK, Finland, Denmark, Belgium and the Czech Republic, for over 10%.

The biggest difference between the average income of those employed and those not employed can be found in Ireland, the UK and the three Baltic States, in all of which the average income of those employed exceeds the national average by 16%, while incomes of those not in work are only around 60% of this. Incomes of those employed are also relatively high in the Czech Republic, Germany, Denmark, Finland and Poland, while incomes of those not in work are also low in the Czech Republic, Belgium and Denmark.

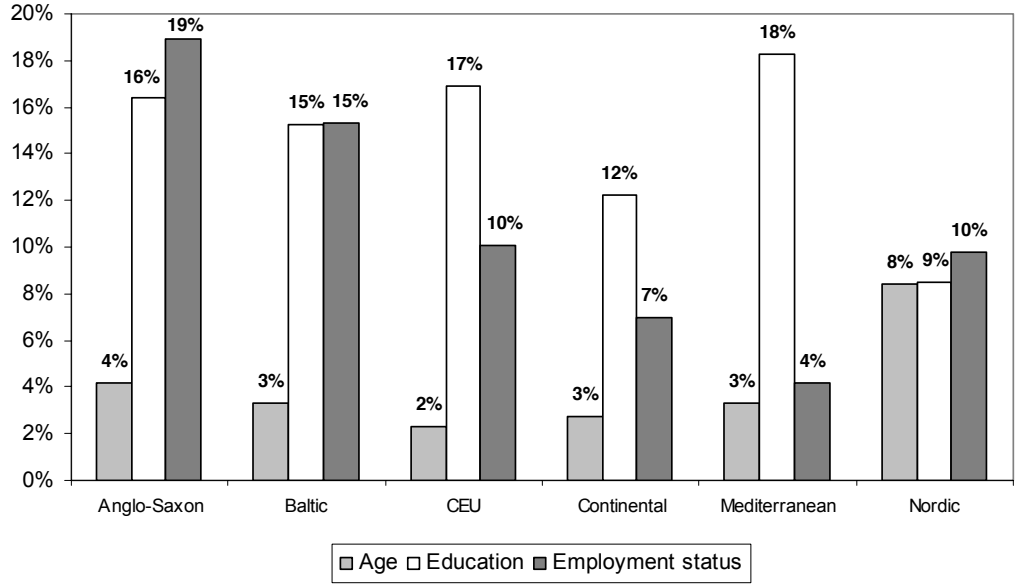
SUMMARY OF STATIC DECOMPOSITION ANALYSIS

The results of the static decomposition analysis can be summarised by creating six country-groups and calculating averages of between-group effects for each of these. The groups in question are the Nordic countries (Sweden, Norway, Denmark, Finland and Iceland), the Mediterranean countries (Portugal, Spain, Italy, Greece and Cyprus), the Continental countries (France, Germany, Belgium, Netherlands, Luxembourg and Austria), Anglo-Saxon countries (the UK and Ireland), the Central-European countries (Poland, the Czech Republic, Slovakia, Slovenia and Hungary) and the three Baltic States (Lithuania, Estonia and Latvia). The results are shown in Figure 5.

The Anglo-Saxon and the Baltic countries have a similar structure of inequality with education and employment having a large effect and age a small one. In the Nordic countries, age, education and employment all have similar effects on income inequality, while in the Continental, Central European and Mediterranean countries, education is the most important factor in explaining inequalities. In the Central European and Mediterranean countries the effect of education is stronger than in the Continental countries. Employment also has an important

effect in the Continental and Central European countries but among the Mediterranean countries, the effect of employment status has a similarly small effect to that of age.

Fig 5. Percentage of inequalities explained by different factors in the country groups, 2004



Note: Percentages are simple country averages

THE EFFECT OF AGE, EDUCATION AND EMPLOYMENT ON THE CHANGE IN INEQUALITY

As described above, data from the 2001 ECHP (for income in 2000) are used in combination with the EU-SILC to decompose recent changes in inequality, though this is possible only for 12 countries. The fact that the data for the two years come from different sources should be kept firmly in mind and this obviously qualifies the results. Between 2000 and 2004, the biggest increase in inequality appears to have occurred in Portugal, where the MLD index increased by almost 30%. There were also relatively large increases in Ireland and Italy, in which the MLD index rose by over 15%. More modest increases occurred in Austria and Denmark, where the MLD index increased by 11%. By contrast, there were modest reductions in inequality in Spain, Belgium and Sweden, where the MLD index was 11-14% lower in 2004 than in 2000. In the other 4 countries for which data are available (Luxembourg, Greece, Finland and France), there was little change in inequality.

Results of the dynamic decomposition analysis are summarised in Table 2 and more detailed results are shown in Tables 5-7 in the Appendix. Focusing first on the countries in which inequality increased by most, in Portugal, the increase in inequality is attributable to increases in income dispersion within groups. Changes in income differences by age, education and employment status were not major factors underlying the increase in inequality and changes in

the structure of population do not seem to have contributed either. In Italy, important between-group effects are evident as regards education and age – increasing income differences between education groups accounted for 28% of the increase in inequality, while the between-age groups effect was responsible for 18% of the increase. While the between-groups employment effect is not important, changes in the structure of population structure explains 26% of the increase in inequality. The proportion of those living in households where the head is economically inactive increased from 11% to 15%, while the proportion of those with a head of household in employment declined. In Ireland, an important between-groups employment effect is evident, accounting for 49% of the increase in inequality. In 2000, average income of those in employment exceeded that of those who were economically inactive by 63%, whereas in 2004, this had risen to 91%. Changes in the distribution of education levels were also important, accounting for 43% of the increase in inequality.

Among countries where there was a modest increase in inequality, in Austria, important between-groups age and education effects are evident, but in both cases, these tended to reduce inequality rather than increasing it. In the case of age, the increase in inequality was mainly due to increasing income dispersion within groups, while in the case of education, changes in the structure of population also had an important effect in increasing inequality. On the other hand, in Denmark, income differences by age and. Most especially, education widened and these had an important effect in increasing inequality, accounting for 25% and 71%, respectively, of the increase in inequality.

Among the countries in which inequality declined over the period, in Belgium and Sweden, this was mainly due to falling within-group inequality and changes in income differences between groups were relatively unimportant. In Spain, income differences by education declined between 2000 and 2004, and this was responsible for 44% of the overall reduction in inequality.

Table 2. The effect of between-group components on the change in inequality

	Age	Education	Employment
Important increase (+15%) IE, IT, PT	IT(+)	IT(++)	IE(++)
Moderate increase (+5-15%) AT,DK,	AT(-), DK(++)	AT(--),DK(+)	
No change (-5%-+5%) LU, GR,FR,FI,			
Moderate decrease (-5-15%) ES, BE, SE		ES(++)	
Important decrease (-15%)			

Note: ++/--: strong inequality increasing/reducing effect of changes in relative mean incomes (contribution to inequality change is more than 25%), +/- modest inequality increasing/reducing effect of changes ion relative mean incomes (contribution to inequality change is between 10% and 25%).

CONCLUDING REMARKS

The analysis indicates that Portugal is the country with the most unequal distribution of income in the EU according to the Gini index (though Bulgaria and Romania are not included in the analysis because of lack of data). Incomes are also relatively unequally distributed in the three other Southern European countries, the three Baltic States, Ireland, the UK and Poland. Countries with the least unequal income distribution are Sweden, Denmark and Slovenia.

Between the low and high inequality countries, there is a large number of medium -level inequality countries between which it is difficult to establish a precise ranking because of overlapping confidence intervals around the central estimates. This group comprises three Nordic countries (Finland, Norway and Iceland), three Central European new Member States (the Czech Republic, Hungary, Slovakia), France, Germany, Belgium and the Netherlands.

The ranking of countries is sensitive to the choice of equivalence scale and of the measure of inequality used, especially in the case of measures which are sensitive to incomes at the extremes of the distribution.

The Anglo-Saxon and the Baltic countries have a similar structure of inequality with education and employment having a strong effect and age a weak one. In the Nordic countries, age, education and employment all have a similar effect on income inequality, while In the Continental, Central European and Mediterranean countries, education is the most important factor. Employment is also important in the Continental and Central European countries though not in the Mediterranean countries.

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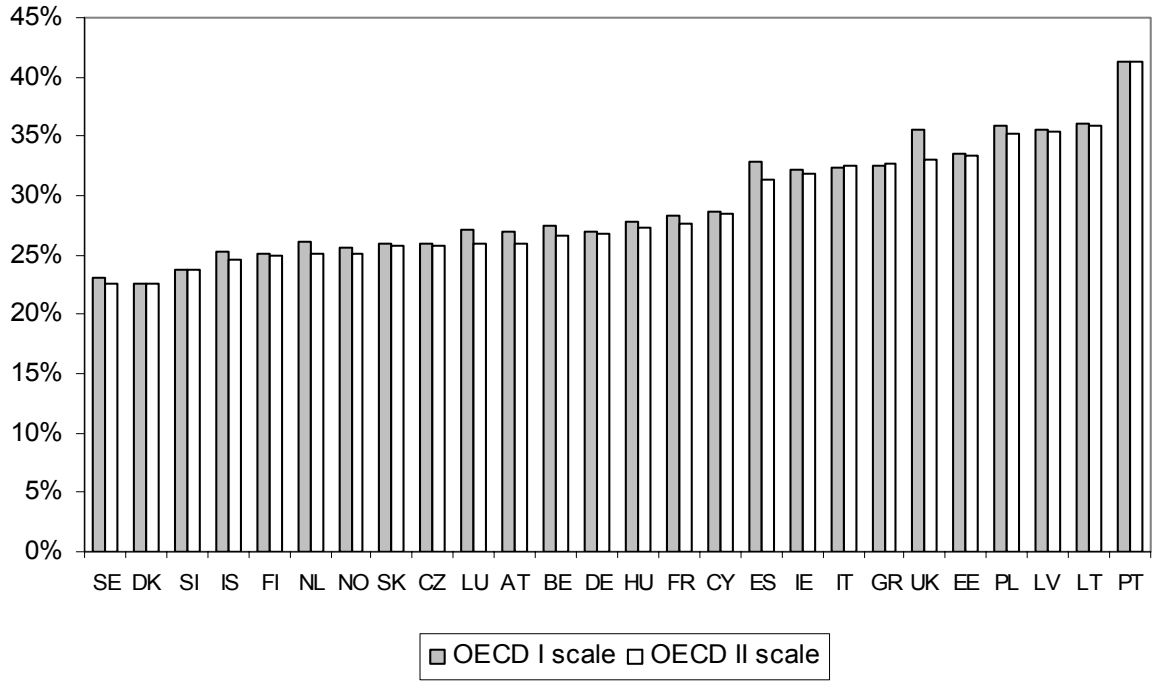
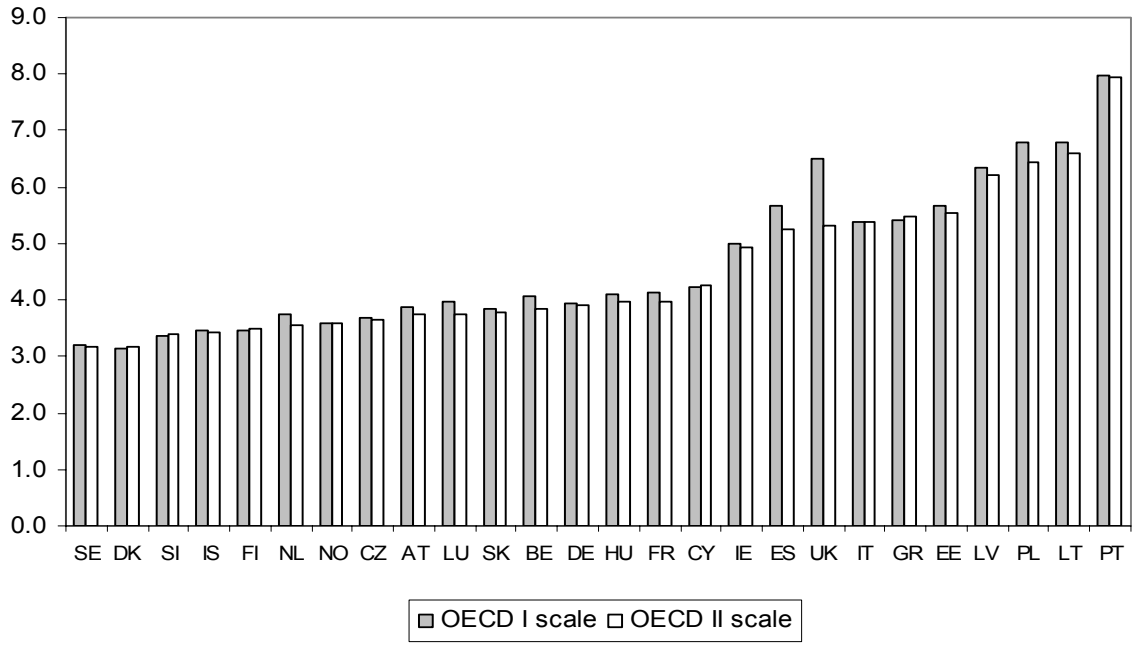
APPENDIX

Fig A.1. Gini indices with different equivalence scales



Note: countries are ranked according to the OECD II scale

Fig A.2. S80/S20 ratios with different equivalence scales

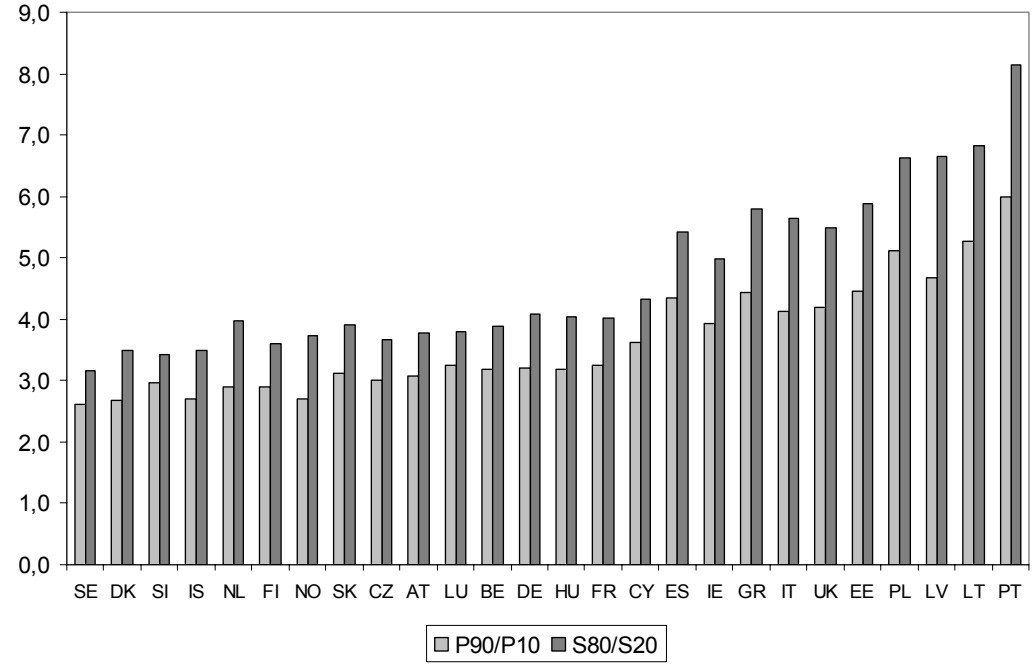


Note: Countries are ranked according to the OECD II scale

Table A.1. Values of different inequality indices in 2004

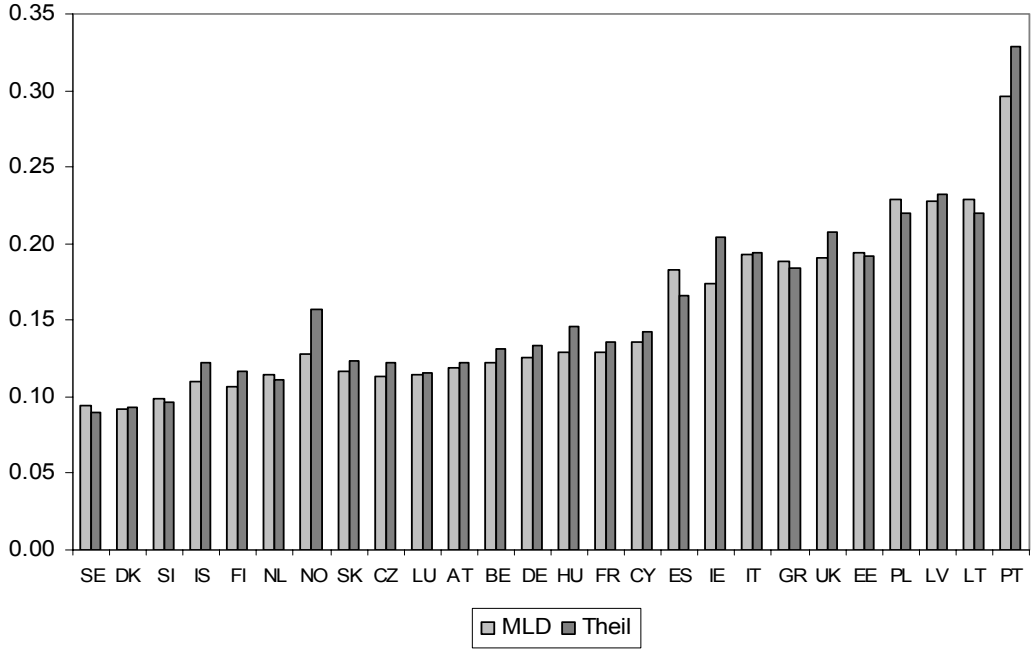
	Gini	P90/P10	MLD	Theil	SCV	Atkinson (e=0.5)	Atkinson (e=1)	Atkinson (e=2)	S80/S20
SE	0.225	2.622	0.094	0.090	0.103	0.044	0.090	0.213	3.156
DK	0.227	2.671	0.092	0.093	0.116	0.045	0.088	0.187	3.177
SI	0.237	2.967	0.099	0.096	0.108	0.047	0.094	0.195	3.406
IS	0.247	2.705	0.110	0.122	0.181	0.055	0.104	0.209	3.429
FI	0.249	2.906	0.106	0.117	0.169	0.053	0.101	0.191	3.478
NL	0.251	2.896	0.115	0.112	0.132	0.054	0.109	0.254	3.559
NO	0.251	2.699	0.128	0.157	0.400	0.065	0.120	0.406	3.578
SK	0.258	3.114	0.117	0.124	0.170	0.058	0.110	0.212	3.770
CZ	0.258	2.997	0.113	0.123	0.163	0.057	0.107	0.199	3.636
LU	0.260	3.243	0.114	0.115	0.136	0.055	0.108	0.216	3.746
AT	0.260	3.080	0.119	0.122	0.153	0.058	0.112	0.229	3.736
BE	0.266	3.179	0.123	0.131	0.189	0.061	0.115	0.223	3.856
DE	0.267	3.204	0.126	0.134	0.185	0.062	0.118	0.232	3.915
HU	0.273	3.192	0.129	0.146	0.226	0.065	0.121	0.220	3.964
FR	0.276	3.250	0.129	0.136	0.174	0.064	0.121	0.234	3.973
CY	0.284	3.623	0.136	0.142	0.185	0.067	0.127	0.239	4.273
ES	0.314	4.351	0.183	0.166	0.192	0.082	0.167	0.461	5.237
IE	0.318	3.935	0.174	0.204	0.397	0.088	0.159	0.283	4.934
IT	0.324	4.126	0.193	0.194	0.274	0.090	0.176	0.406	5.366
GR	0.326	4.439	0.189	0.184	0.231	0.088	0.172	0.370	5.463
UK	0.331	4.185	0.191	0.208	0.342	0.093	0.174	0.356	5.305
EE	0.334	4.455	0.194	0.192	0.240	0.091	0.177	0.353	5.543
\PL	0.352	5.122	0.228	0.219	0.288	0.104	0.204	0.436	6.446
LV	0.355	4.678	0.227	0.232	0.347	0.107	0.203	0.421	6.216
LT	0.359	5.271	0.229	0.220	0.272	0.106	0.205	0.406	6.599
PT	0.412	6.003	0.296	0.328	0.564	0.143	0.256	0.474	7.950

Fig A.3. P90/P10 and S80/S20 ratios



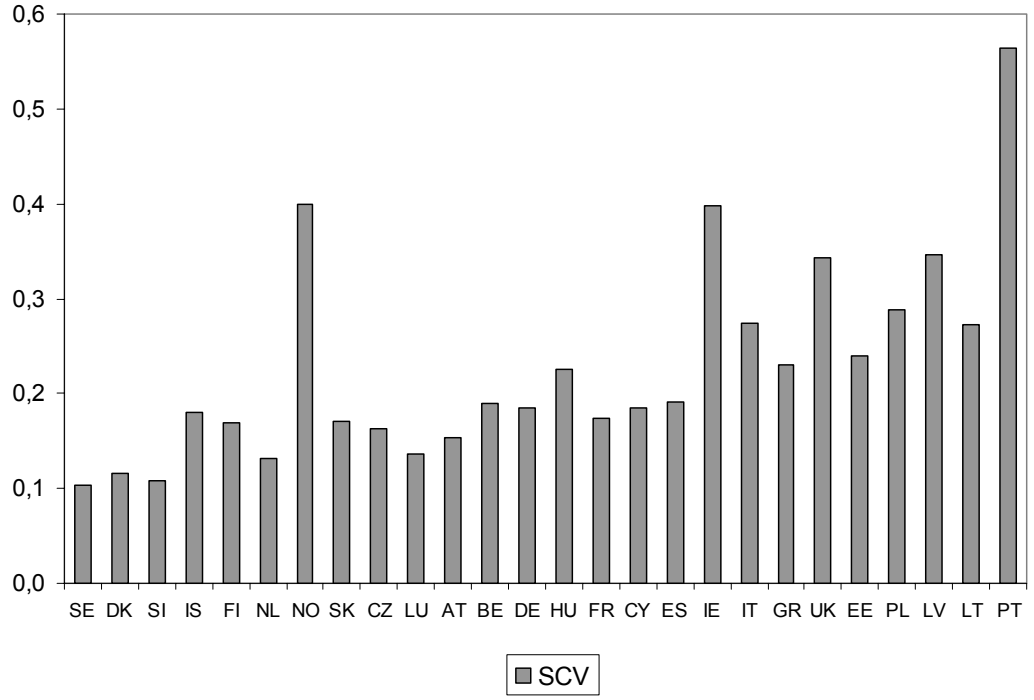
Note: Countries are ranked according to the Gini index.

Fig A.4. Generalised Entropy measures of inequality: the MLD and Theil indices



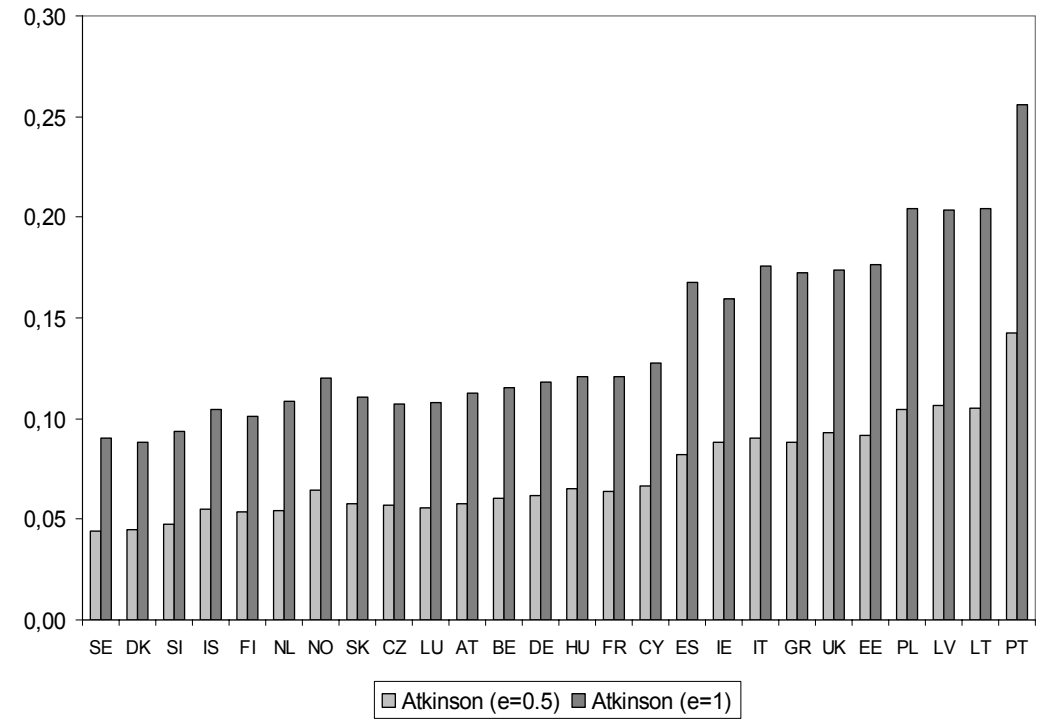
Note: Countries are ranked according to the Gini index

Fig A.5. Generalised Entropy measures: the SCV index



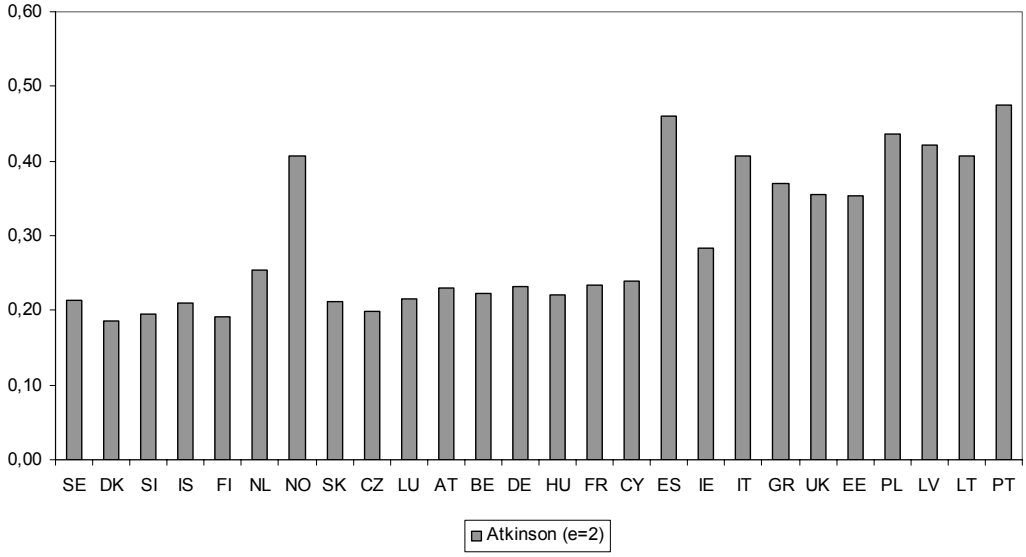
Note: Countries are ranked according to the Gini coefficient

Fig A.6. Atkinson inequality indices with parameters ϵ=0.5, ϵ=1



Note: Countries are ranked according to the Gini index.

Fig A.7. Atkinson inequality index with parameter ϵ=2



Note: Countries are ranked according to the Gini index.

Fig A.8. The ranking of countries according to the Gini coefficient and the risk of poverty rate compared

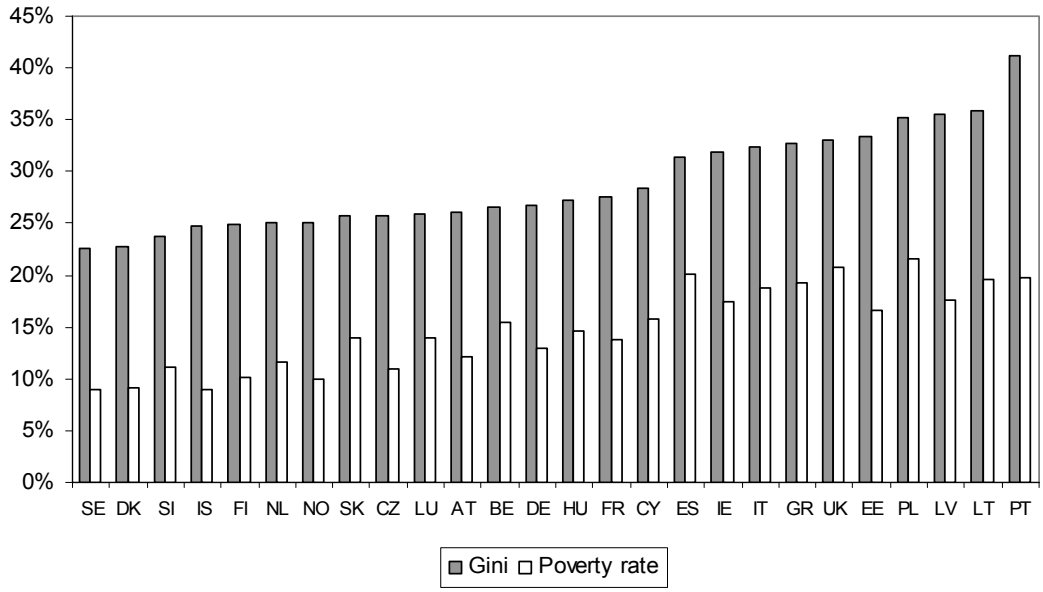
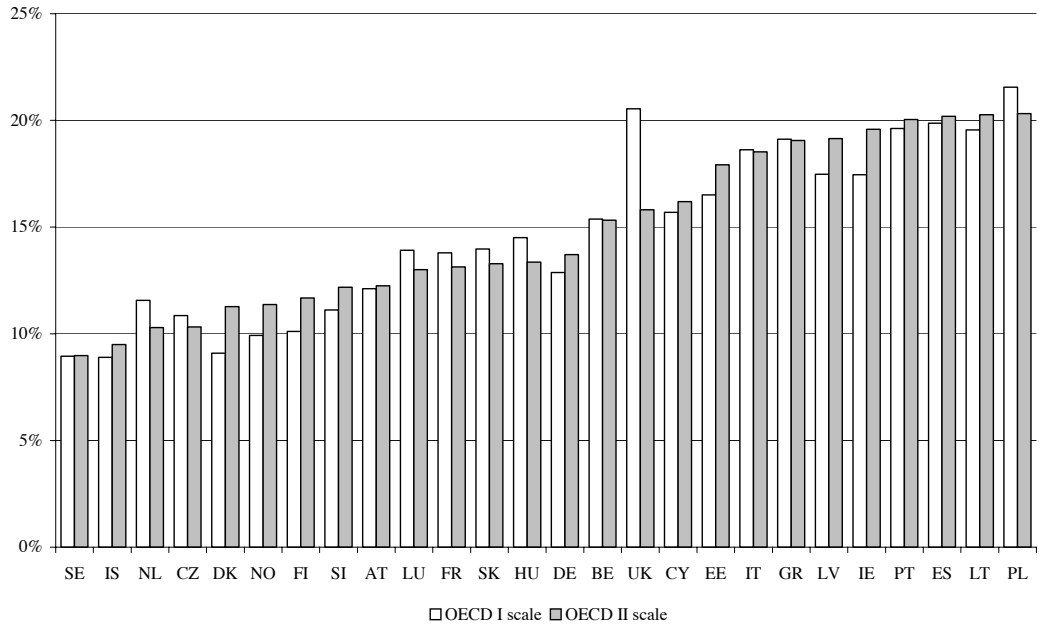


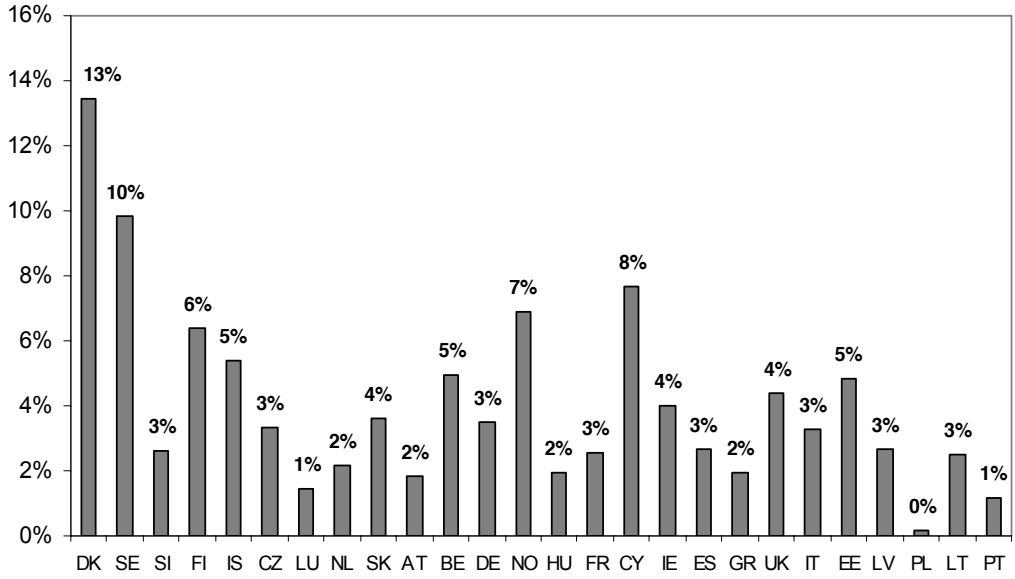
Fig A.9. Risk of poverty rates according to different equivalence scales



Source: EU-SILC

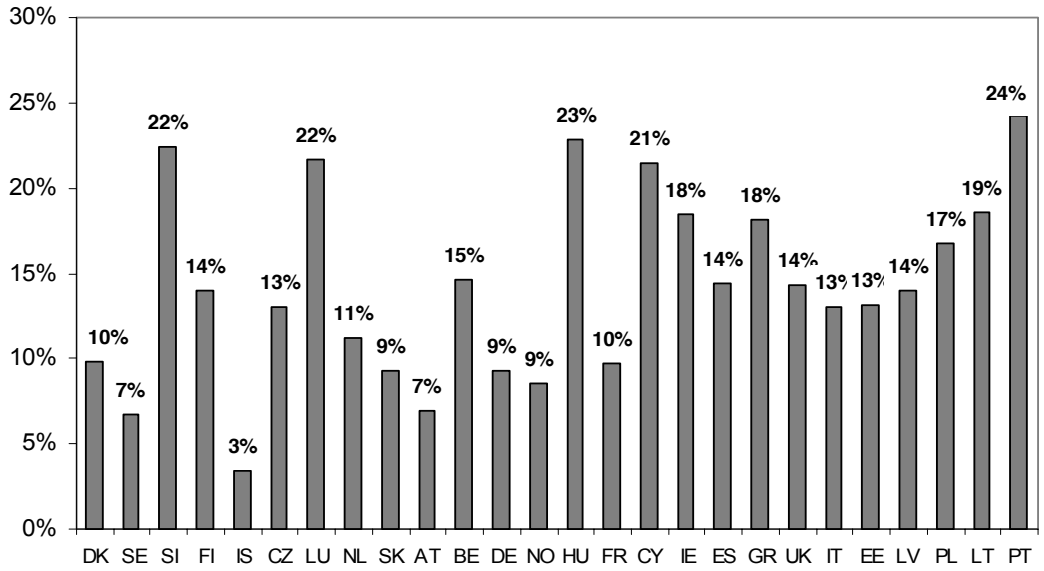
Note: countries are ranked according to the OECD II scale.

Fig A.10. Share of between-group inequality in total inequality, by age of household head



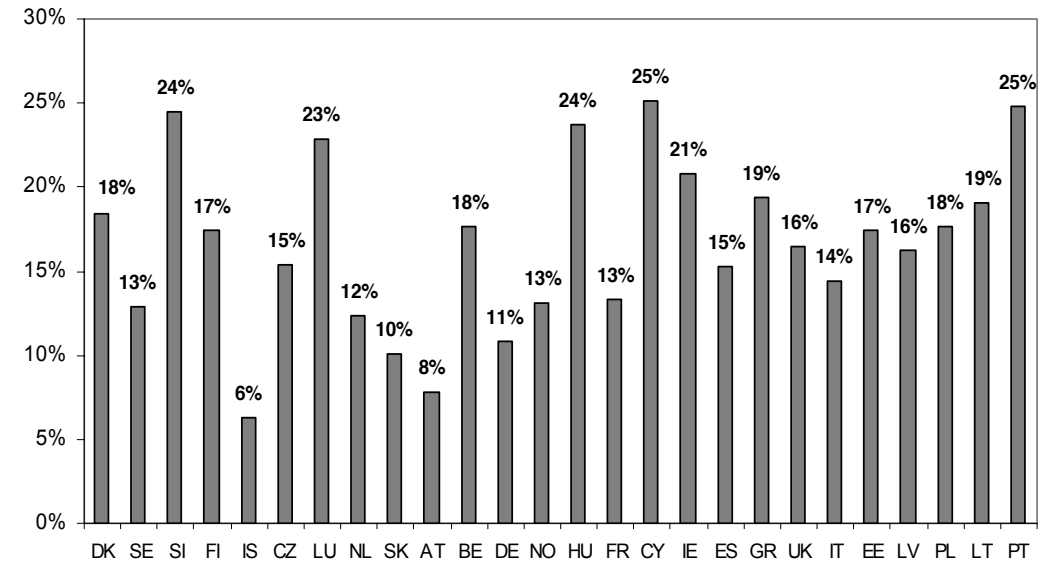
Note: Countries are ranked according to the MLD index of total inequality.

Fig A.11. Share of between-group inequality in total inequality, by education of household head



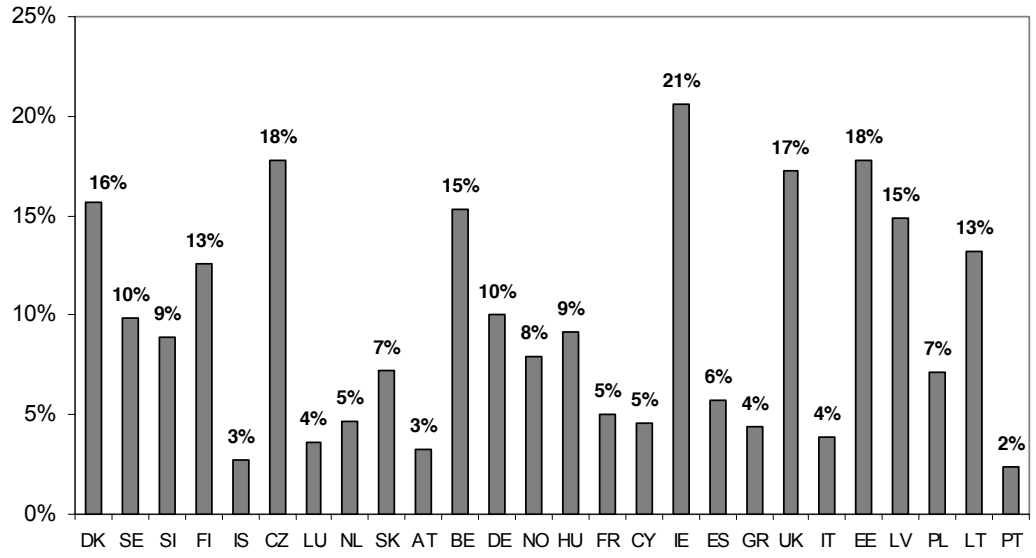
Note: Countries are ranked according to the MLD index of total inequality.

Fig A.12. Share of between-group inequality in total inequality, by education and age of household head



Note: Countries are ranked according to the MLD index of total inequality.

Fig A.13. Share of between-group inequality in total inequality, by employment status of household head



Note: Countries are ranked according to the MLD index of total inequality.

Table A.2. Decomposition of MLD by age of household head

	Population shares				Relative means				Within group MLDs (1000*MLD)			
	18/35	36/49	50/64	65/max	18/35	36/49	50/64	65/max	18/35	36/49	50/64	65/max
BE	20%	39%	26%	14%	96%	104%	110%	77%	107	126	129	81
CZ	24%	32%	33%	11%	100%	102%	106%	78%	132	134	91	48
DK	23%	36%	26%	15%	85%	104%	121%	77%	99	67	92	59
DE	15%	38%	30%	17%	86%	101%	112%	90%	117	123	131	114
EE	26%	34%	27%	13%	112%	99%	104%	70%	249	185	177	80
IE	25%	35%	31%	9%	100%	99%	110%	70%	173	154	193	109
EL	17%	37%	32%	14%	96%	104%	105%	81%	178	175	208	165
ES	18%	39%	31%	11%	108%	99%	106%	76%	174	187	178	156
FR	22%	35%	27%	15%	91%	98%	113%	95%	114	109	142	153
IT	15%	37%	34%	14%	92%	97%	114%	82%	196	178	207	151
CY	20%	40%	31%	9%	96%	99%	115%	66%	118	108	145	156
LT	25%	38%	25%	12%	107%	99%	107%	75%	264	226	236	99
LU	18%	40%	31%	11%	93%	97%	108%	98%	110	125	106	89
LV	23%	38%	28%	11%	105%	102%	104%	72%	237	226	242	122
HU	23%	33%	32%	12%	96%	96%	110%	92%	128	139	138	57
NL	20%	39%	28%	13%	93%	97%	111%	95%	106	115	120	96
AT	18%	40%	28%	13%	92%	98%	110%	95%	122	113	114	129
PL	20%	38%	33%	9%	101%	97%	103%	102%	249	253	222	102
PT	20%	37%	31%	12%	103%	99%	107%	81%	295	293	291	292
FI	22%	35%	29%	14%	90%	103%	113%	80%	115	83	113	89
SE	23%	34%	27%	16%	87%	100%	120%	84%	106	77	86	66
SI	15%	39%	35%	11%	97%	99%	107%	83%	93	87	102	115
SK	17%	39%	34%	10%	99%	95%	111%	82%	154	111	112	52
UK	24%	35%	25%	15%	96%	108%	109%	74%	181	191	197	142
IS	25%	40%	25%	10%	88%	99%	118%	89%	115	97	98	117
NO	24%	37%	26%	13%	91%	99%	120%	80%	163	91	132	91

Table A.3. Decomposition of MLD by education of household head

	Population share			Relative means			Within group MLDs (1000*MLD)		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
BE	29%	37%	33%	78%	95%	124%	93	102	103
CZ	9%	77%	13%	69%	97%	140%	73	100	109
DK	29%	47%	24%	85%	98%	122%	79	79	95
DE	10%	47%	43%	76%	89%	117%	116	104	129
EE	17%	59%	24%	68%	95%	137%	132	166	202
IE	48%	29%	24%	79%	97%	146%	131	115	195
EL	48%	33%	19%	78%	101%	152%	145	149	176
ES	55%	21%	24%	81%	106%	139%	158	148	158
FR	24%	53%	24%	88%	92%	129%	111	105	138
IT	57%	32%	11%	83%	110%	160%	167	163	181
CY	35%	39%	26%	76%	95%	140%	103	95	127
LV	23%	62%	15%	70%	97%	156%	168	195	216
LT	19%	62%	19%	69%	89%	164%	161	198	177
LU	37%	41%	22%	78%	98%	141%	88	87	96
HU	29%	57%	15%	77%	96%	161%	78	94	161
NL	30%	39%	31%	84%	94%	124%	87	96	127
AT	17%	61%	22%	82%	97%	122%	133	100	124
PL	20%	68%	12%	71%	94%	181%	163	193	213
PT	79%	11%	10%	79%	134%	226%	214	244	243
SE	20%	55%	25%	86%	97%	118%	78	79	109
FI	27%	44%	29%	84%	92%	127%	90	83	104
SI	24%	66%	10%	76%	100%	160%	80	73	80
SK	10%	74%	16%	73%	97%	130%	78	101	149
UK	24%	45%	31%	69%	95%	131%	126	156	205
IS	69%	29%	2%	105%	87%	110%	103	113	105
NO	14%	58%	28%	79%	94%	122%	87	105	137

Table A.4. Decomposition of MLD by employment status of household head

	Population share			Relative means			Within group MLDs (1000*MLD)		
	employed	inactive	retired	employed	Inactive	retired	employed	inactive	retired
BE	64%	17%	20%	113%	68%	84%	105	124	86
CZ	69%	14%	17%	112%	64%	81%	100	128	37
DK	68%	14%	18%	111%	70%	83%	77	96	66
DE	61%	16%	23%	111%	71%	90%	111	144	105
EE	69%	15%	15%	116%	60%	68%	161	228	88
IE	68%	24%	9%	116%	60%	80%	148	107	138
EL	70%	12%	18%	107%	72%	91%	179	198	167
ES	72%	15%	13%	108%	73%	85%	171	206	153
FR	66%	11%	23%	105%	72%	101%	111	151	138
IT	64%	15%	21%	106%	74%	100%	168	275	176
CY	79%	10%	12%	105%	78%	81%	107	195	228
LV	69%	13%	18%	116%	61%	68%	188	291	120
LT	68%	17%	16%	115%	62%	73%	209	263	87
LU	74%	12%	14%	103%	77%	103%	106	152	92
HU	63%	19%	18%	110%	73%	95%	140	97	58
NL	70%	22%	8%	106%	81%	102%	113	108	94
AT	70%	7%	23%	103%	73%	99%	110	170	113
PL	58%	27%	15%	111%	72%	106%	241	209	102
PT	72%	11%	17%	106%	72%	95%	293	275	265
SE	70%	13%	17%	108%	75%	85%	82	122	63
FI	66%	17%	16%	111%	75%	82%	88	118	85
SI	65%	11%	25%	108%	72%	90%	83	123	93
SK	69%	11%	20%	108%	73%	89%	121	122	58
UK	68%	15%	18%	116%	59%	73%	167	141	138
IS	84%	9%	7%	103%	84%	82%	102	175	85
NO	72%	15%	13%	108%	78%	80%	96	217	92

Fig. A.14. MLD indices in 2000 and 2004

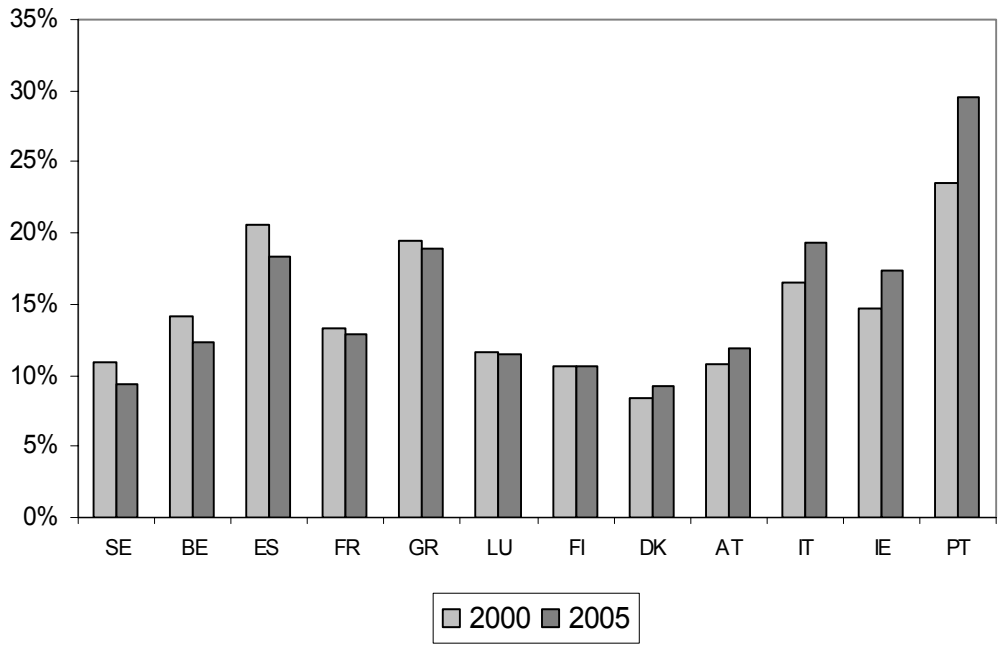


Table A.5. Decomposition of change in inequality by age of household head

	Change in MLD (MLD*1000)	% of change due to changes in within group inequality	% of change due to changes in population structure	% of change due to changes in between group inequality
BE	-19	95%	1%	4%
DK	9	34%	-5%	71%
IE	27	101%	4%	-5%
EL	-5	63%	25%	12%
ES	-22	103%	1%	-4%
FR	-4	93%	-25%	32%
IT	27	84%	-3%	18%
LU	-1	122%	18%	-40%
AT	12	107%	6%	-13%
PT	61	104%	1%	-5%
FI	0	112%	-17%	6%
SE	-17	90%	7%	3%

Table A.6. Decomposition of change in inequality by education of household head

	delta MLD (MLD*1000)	% of change due to changes in within group inequality	% of change due to changes in population structure	% of change due to changes in between group inequality
BE	-25	93%	0%	7%
DK	9	73%	2%	25%
IE	28	50%	43%	7%
EL	-8	-32%	7%	125%
ES	-24	57%	0%	44%
FR	-6	47%	-85%	138%
IT	27	68%	3%	28%
LU	0	-1552%	60%	1592%
AT	12	63%	69%	-32%
PT	56	104%	5%	-10%
FI	-1	83%	39%	-22%
SE	-18	77%	16%	7%

Table A.7. Decomposition of change in inequality by age and education of household head

	delta MLD	% of change due to changes in within group inequality	% of change due to changes in population structure	% of change due to changes in between group inequality
BE	-25	101%	1%	-2%
DK	9	54%	-17%	63%
IE	28	59%	42%	-2%
EL	-8	-35%	7%	128%
ES	-24	59%	3%	39%
FR	-6	20%	-109%	189%
IT	27	64%	3%	33%
LU	0	-1243%	31%	1311%
AT	12	84%	76%	-60%
PT	56	107%	1%	-7%
FI	-1	-220%	-124%	443%
SE	-18	71%	19%	10%

Table A.8. Decomposition of change in inequality by employment status of household head

	delta MLD	% of change due to changes in within group inequality	% of change due to changes in population structure	% of change due to changes in between group inequality
BE	-18	132%	-25%	-7%
DK	10	52%	51%	-3%
IE	28	41%	11%	49%
EL	-6	112%	-19%	7%
ES	-22	94%	15%	-8%
FR	-4	163%	-60%	-3%
IT	28	81%	26%	-7%
LU	0	2976%	-5006%	2130%
AT	12	97%	0%	3%
PT	58	95%	0%	5%
FI	0	3469%	-2930%	-439%
SE	0	0%	0%	0%

CHAPTER 2 — WHO ARE THE POOR?

INTRODUCTION

The focus of policy attention across the EU so far as poverty and social exclusion are concerned tends to be on the relative number of people in each country with (equivalised) disposable income below 60% of the national median. This figure, which has come to be regarded as the main indicator of the risk of poverty, varies widely across the EU. It also, however, varies even more widely between sections of the population within Member States. The concern is to examine these variations and how they differ across countries on the basis of the data newly provided by the EU-SILC, but it is also to review the composition of those at most at risk of poverty, so defined, in different countries.

This varies not only according to those most at risk of poverty but also according to the relative number of the particular social group concerned. It may, therefore, be the case that a social group, such as lone parents, has a very high risk of poverty but that there are only very few of them in the country in question, so that they make up only a small proportion of the total at risk. Conversely, another group might be at much lower risk of having an income below 60% of the national median but, because of their large numbers, might account for a substantial share of the number with similarly low levels of income.

The risk of poverty within different groups, therefore, gives policy makers only partial guidance as to where measures to alleviate poverty should be targeted. A high risk of poverty among a particular group may signify gaps in policy or in its effectiveness, but it does not necessarily indicate the groups which policy needs to target if the concern is to have the maximum effect in reducing the overall proportion of people with income below the poverty threshold. To achieve the latter, measures need to be targeted on those who make up the largest number of those with income below the poverty line, who may not necessarily be those with the highest risk.

The focus here is both on the effect of age, household circumstances and employment, as well as gender, on the risk of poverty and on the variation across countries in the relative numbers of people falling into particular groups defined according to these aspects. The risk of poverty, in terms of the proportion of people with income below the poverty threshold as defined, in combination with their relative numbers then determines the composition of the total population with income below this level.

THE APPROACH ADOPTED

The approach adopted is, first, to define sections of the population in terms of broad age groups, household circumstances and employment, secondly, to examine the proportion of each of these groups at risk of poverty and, thirdly, to identify the groups which are most numerous among those at risk.

The analysis is based throughout on data from the EU-SILC for 2005 which relate to income in 2004 and cover 24 EU Member States, the countries excluded being Bulgaria, Romania and Malta. The risk of poverty is defined, as noted above, as having equivalised annual disposable income of less than 60% of the national median income level[16]. The focus is on people, including children, having income below this level and specifically on their age, sex and household circumstances in terms of the type of household in which they live. It is also on the work intensity of the household, defined as the number of people living there who are in work, adjusted for the months in the year when they are not in employment, relative to the total number in the household[17]. Note that the latter takes no account of part-time working and counts those employed on a part-time basis in the sane way as those employed full-time.

The groups distinguished are as follows:

- lone parents
- lone women of 65 and over
- lone men of 65 and over
- people aged under 65 living alone with work intensity of less than 1 (i.e. they are employed for only part of the year)
- people living alone with work intensity of 1 (i.e. those employed throughout the year)
- couples aged 65 and over without children
- couples with 1-2 children with work intensity of less than 0.5 (i.e. only one member of the couple is employed and then for only part of the year)

16 Equivalised to adjust for differences in the size and composition of households using the modified OECD scale and, therefore, assigning a weight of 1 to the first person in the household, 0.5 to all other adults (i.e. those aged 16 and over) and 0.3 to each child (i.e. those under 16).

17 Work intensity is 1 if all people of working age in the household are in employment throughout the year. It is less than 1 if this is not the case. In practice, in most cases where it is less than 1, either only one of a couple is employed throughout the year (in which case it is 0.5) or no-one in the household is working (in which case work intensity is 0).

- couples with 1-2 children with work intensity of 0.5 or over but less than 1 (i.e. typically one of the couple is employed full-time and the other person is not in employment or, in the few cases in which they are, work for only part of the year)
- couples with 1-2 children with work intensity of 1 (i.e. both people are employed throughout the year)
- couples with 3 or more children with work intensity of less than 0.5 (see above)
- couples with 3 or more children with work intensity of 0.5 or over but less than 1 (see above)
- couples with 3 or more children with work intensity of 1
- couples aged under 65 without children with work intensity of less than 1
- couples aged under 65 without children with work intensity of 1

The main households not included in the above are those in which there are more than two people aged 16 or over with or without children, for whom the risk of poverty is very low in all countries.

THE RISK OF POVERTY

There are wide differences in the risk of poverty among these groups across the 24 EU Member States. Nevertheless, four groups stand out as facing a high risk of poverty in most countries:

- people of working age (i.e. under 65) living alone with a dependent child, who are, in the vast majority of cases, women;
- those living alone aged 65 and over who are no longer in paid employment and who again, in most cases, are women, many of whom may not have been working before reaching 65;
- those living alone of working age who are not in employment;
- couples with children where neither parent or only one of them is in employment, especially those with three or more children.

For lone parents, most of them women, the proportion at risk of poverty is around 45% or more in Ireland and Lithuania and over 40% in the Czech Republic, Greece and Poland (Table 1). While it is less elsewhere, it is over 20% in all countries except in Sweden, where it is just under, and over 25% in all other countries apart from Denmark and Finland (20-21% in each case). It is, therefore, substantially more than the overall proportion of the population at risk of poverty throughout the EU.

For women living alone aged 65 and over, the variation in the proportion with income below the poverty line is much greater. It is over 50% in Spain, Ireland (65%) and Cyprus (74%) but under 8% in Luxembourg, the Netherlands and Poland. In most countries, the proportion at risk is higher than for men, though in the latter three countries, below the national average, the only countries, apart from Hungary, among the 24 where this is the case. The high risk among such women is largely attributable low pension entitlement, which reflects their lower lifetime earnings or low widow's pensions in cases where they have no independent entitlement to a pension as such.

The effect on income of unemployment, or only partial employment, among those of working age is very apparent. In Estonia, Latvia and Slovenia, over 70% of people of working age living alone who are not in work or who, in some cases, worked only part of the year, and around 65% in Ireland had income of less than 60% of the national median, and in all but two countries – the Netherlands (23%) and Sweden (28%) – the proportion was over 30%.

Moreover, even for those in employment throughout the year, the relative number with income below the poverty line was still around 18% in both Hungary and Portugal if the person concerned lived alone and 11-13% in four other new Member States – Cyprus, Latvia, Poland and Slovenia. Accordingly, for a significant proportion of people in these countries, a single salary is not sufficient to provide a level of income above the poverty line.

Having children adds to the risk of poverty among those not in work or living in household where either no-one is in work or only one person is employed, especially if they are not employed throughout the year. Couples with 3 or more children with work intensity below 0.5, therefore, stand out as the social group facing the highest risk of poverty, over two-thirds of this group having an income below the poverty line in the majority of Member States. Indeed, only in Finland, is the proportion of people with income below this level less than 50%, and then only slightly so.

The risk of poverty is only a little less among couples with one or two children, in all countries apart from the three Nordic Member States together with Austria, over 40% of people living in households with 1-2 children and with work intensity of less than 0.5 (i.e. with no-one employed throughout the year) having income below the poverty line and among the other countries, the proportion being under 50% only in Germany and Portugal.

In households with children where work intensity was 0.5 or more but less than 1 – i.e. where at least one person was employed throughout the year but at least one or both were not in work for some of the time – the risk of poverty was significantly less, especially for those with only 1-2 children. The proportion of people at risk was over 25% only in Lithuania, Hungary and

Portugal, though it was over 20% in another 8 countries – the three other southern European countries, four other new Member States and the UK. By contrast, it was under 5% in each of the three Nordic countries.

Table 1 Risk of poverty rates of social groups by household type and work intensity

	Lone parents	Lone women 65+	Lone men 65+	Single people <65		Couples 65+ w/o children	Couples with 1-2 children			Couples with 3+ children			Couples <65 w/o children		Total
				WI<1	WI=1		WI<0.5	0.5<= WI<1	WI=1	WI<0.5	0.5<= WI<1	WI=1	WI<1	WI=1	
BE	36.1	27.0	27.1	33.0	4.8	16.4	71.1	14.0	1.4	90.4	21.6	3.0	12.3	0.6	14.9
CZ	41.0	16.0	5.0	41.4	4.0	2.2	70.5	14.3	1.5	*95.7**	25.5	2.2	13.5	0.0	10.4
DK	20.9	19.7	24.4	39.6	10.1	13.0	31.1	3.8	3.2	66.1	17.8	8.4	7.9	1.1	11.9
DE	30.4	27.4	17.7	49.5	9.5	11.8	43.0	6.8	2.5	56.0	10.6	1.2	14.8	2.7	13.1
EE	39.8	44.1	29.0	70.9	9.8	10.6	72.8	16.9	4.0	89.5	21.2	8.1	25.1	4.4	18.3
IE	44.7	65.1	55.5	64.8	8.3	19.5	64.5	13.3	2.4	64.5	21.0	10.0	23.6	3.2	19.7
GR	43.3	35.9	31.4	38.9	5.7	27.4	52.8	23.1	7.0	100.0	37.1	15.6	17.2	14.6	19.7
ES	37.3	51.4	32.0	45.6	8.0	29.2	60.7	24.6	8.0	75.9	47.9	12.5	19.1	4.0	19.8
FR	25.6	21.9	19.6	30.9	6.8	12.8	52.3	13.9	2.9	71.1	24.6	4.6	11.7	2.1	13.0
IT	35.3	37.7	24.5	46.5	8.9	19.9	66.3	24.6	3.1	62.8	43.1	7.1	14.0	2.8	19.0
CY	35.2	73.5	60.1	51.9	11.9	47.2	65.4	14.0	1.7	72.8	23.5	2.3	19.2	4.1	16.2
LV	31.2	46.2	37.1	72.5	12.7	11.0	67.8	20.8	6.1	74.2	49.0	11.4	28.2	5.0	19.3
LT	48.4	35.7	18.4	57.9	8.5	9.4	73.9	28.6	5.4	95.1	41.1	33.3	24.7	4.6	20.6
LU	32.0	5.4	13.1	31.4	10.4	7.3	65.6	18.3	7.7	61.0	19.9	16.0	11.9	0.9	13.0
HU	27.1	11.8	6.3	37.1	18.2	4.4	55.2	30.2	8.4	*100.0**	44.1	15.4	14.2	3.0	13.4
NL	26.4	6.8	5.1	22.6	5.7	4.3	60.2	11.9	4.9	77.6	27.7	10.7	10.8	2.1	10.8
AT	27.3	26.5	11.0	33.0	6.9	11.0	37.0	15.6	3.1	59.3	23.8	7.5	14.8	2.5	12.3
PL	40.1	7.6	6.3	36.0	11.5	6.3	56.3	22.0	8.5	85.7	44.4	30.6	16.3	7.0	20.6
PT	34.3	40.4	45.2	52.7	17.8	28.3	45.9	36.5	11.6	*97.5**	44.0	29.8	22.0	8.5	20.3
SI	22.0	48.5	25.7	71.7	11.2	12.1	51.2	20.8	1.7	89.9	20.5	4.8	14.7	2.1	12.2
SK	31.8	13.4	3.4	32.2	9.8	3.9	71.2	20.1	9.7	78.5	33.0	15.5	11.7	7.1	13.3
FI	20.3	38.8	26.5	41.4	4.8	7.8	37.3	4.8	1.6	48.2	12.7	4.8	8.1	2.3	11.7
SE	18.3	20.7	12.2	28.1	9.7	4.0	22.4	4.9	2.6	50.9	15.4	3.5	10.1	1.3	9.2
UK	36.0	33.2	23.4	48.7	9.1	22.9	*57.0**	22.8	7.5	:	48.2	18.4	23.9	4.0	18.4

Note: WI=work intensity; ":" = Number of observations less than 20. * = Estimates based on 20 to 49 sample observations

Although for people living in households with the same level of work intensity – i.e. 0.5 or more but less than 1 – but with three of more children, the risk of poverty was less than for those in households where no-one was in work throughout the year (i.e. where work intensity was less than 0.5), it was over 10% in all countries and under 20% only in the three Nordic countries plus Germany and Luxembourg. In Italy, Lithuania, Hungary, Poland and Portugal, it was between 40% and 45% and in Spain, Latvia and the UK, almost 48-49%.

Even for those living in households where both people in a couple were working, the proportion at risk of poverty was around 30% in Lithuania, Poland and Portugal, if they had three or more children, reflecting both the relative importance of low-wage jobs and the low level of support for children.

THE DIVISION OF POPULATION BETWEEN HOUSEHOLD TYPES

As noted above, the social groups who are at most risk from poverty are not necessarily those who make up most of the population with income below the poverty line. The share of the groups in question in total population is an equally important factor. These shares in respect of particular groups vary markedly across countries. Lone parents, therefore, accounted for 9% of the total population in the UK in 200, for 8% or just over in Germany and Sweden and for just under 8% in Estonia and Ireland but for under 2% in Spain and Greece (Table 2). The relatively high risk of poverty among lone parents in the latter two countries is, therefore, offset by the fact that they make up only a small proportion of the population, whereas in Ireland and Estonia, as well as the UK if to a slightly lesser extent, the relatively high risk is reinforced by their comparatively large numbers, so adding to the problem they pose for policy-makers.

The relationship between the numbers at risk of poverty and policy for supporting them is, however, a two-way rather than a one-way one. The low level of support in Greece and Spain might, therefore, contribute to the small number of lone parents, in the sense that they cannot afford to live alone, just as the higher level in Sweden means that they can.

There is less variation between countries in the share of the population accounted for by women aged 65 and over living alone, though this is slightly higher in Sweden, Denmark and Estonia than elsewhere, while the relative number of people under 65 living alone is also relatively high in Sweden and Denmark, as it is Finland. This applies both to those in work throughout the year and those who are not and contrasts markedly with Greece, Spain and Portugal, where those of working age living alone and not in work throughout the year (or at all) made up less than 1% of the population, the difference gain reflecting differences in support arrangements and the scale of – and extent of entitlement to – unemployment benefits.

Table 2 Division of total population by household type, 2005

	Lone parents	Lone women of 65+	Lone men of 65+	Single people <65		Couples 65+ w/o children	Couples with 1-2 children			Couples with 3+ children			Couples <65 w/o children		Other	Total
				WI<1	WI=1		WI<0.5	0.5<=WI<1	WI=1	WI<0.5	0.5<=WI<1	WI=1	WI<1	WI=1		
BE	6.1	4.1	1.5	3.9	5.1	10.5	1.6	6.9	17.0	1.7	3.9	6.8	8.5	5.4	17.	10
CZ	4.1	3.4	0.9	1.7	2.9	9.5	1.8	12.4	18.6	*0.6**	2.0	2.1	7.5	7.2	25.	10
DK	6.7	5.1	2.0	4.8	8.3	9.3	1.3	7.2	21.2	0.5	2.3	6.8	8.8	9.3	6.4	10
DE	8.4	4.1	1.5	3.0	3.4	13.7	2.8	14.6	14.4	0.8	4.5	2.2	7.7	4.6	14.	10
EE	7.5	5.0	1.2	2.5	4.3	9.2	1.4	9.5	17.0	0.8	2.8	3.0	5.3	5.2	25.	10
IE	7.5	2.6	1.4	1.6	2.0	7.0	2.5	9.7	13.1	3.0	7.2	5.0	4.9	4.7	27.	10
GR	1.8	3.5	0.6	0.7	1.9	11.5	1.1	16.9	17.6	0.1	1.0	0.7	5.6	3.1	33.	10
ES	1.6	2.4	0.7	0.8	1.9	9.5	1.7	14.4	13.2	0.3	2.6	1.9	4.9	5.0	38.	10
FR	5.5	4.5	1.4	2.9	4.6	11.2	1.7	11.2	21.4	0.8	4.2	3.9	9.0	6.2	11.	10
IT	2.5	4.4	1.3	1.4	3.9	11.5	1.1	14.9	13.0	0.2	2.9	1.6	5.7	3.5	32.	10
CY	2.8	2.0	0.7	0.9	1.8	8.7	1.5	13.3	21.5	0.3	5.0	5.5	5.0	3.5	27.	10
LV	5.8	3.9	0.7	2.1	3.1	9.3	1.7	9.1	13.7	0.6	1.9	1.8	6.2	4.1	35.	10
LT	6.3	4.4	0.8	2.6	3.2	8.6	2.0	9.8	20.9	0.9	2.7	3.0	5.8	3.8	25.	10
LU	3.3	2.9	1.1	2.1	5.5	8.6	1.6	13.6	16.1	0.6	7.8	4.4	6.1	6.5	19.	10
HU	4.8	4.4	1.3	2.3	3.7	9.1	1.2	5.6	19.4	*0.2**	2.2	5.5	6.7	5.5	28.	10
NL	3.8	4.0	1.2	3.9	5.2	9.2	1.4	9.6	19.5	0.5	4.7	7.4	9.3	8.1	12.	10
AT	3.7	4.3	1.1	3.1	6.0	9.2	1.6	11.8	13.8	0.6	4.5	3.1	7.0	6.2	24.	10
PL	2.6	3.5	1.0	2.4	1.8	6.8	3.2	10.0	12.2	1.2	3.4	3.3	5.6	2.3	40.	10
PT	2.6	2.9	1.0	0.7	1.3	10.1	1.4	9.9	20.9	*0.3**	1.7	2.4	5.1	3.4	36.	10
SI	3.4	3.7	0.8	1.6	1.5	8.3	1.9	8.0	21.4	0.5	1.8	3.8	5.7	2.0	35.	10
SK	2.6	4.2	0.8	1.8	1.4	6.3	1.3	8.1	18.8	0.4	3.2	5.6	4.9	2.5	38.	10
FI	5.1	4.8	1.3	5.3	5.7	10.0	2.2	11.5	14.1	1.0	5.1	5.9	10.	8.1	9.1	10
SE	8.0	5.4	2.1	3.8	7.6	10.2	1.2	8.3	19.6	0.5	3.1	7.4	7.2	9.1	6.6	10
UK	9.1	4.9	1.9	1.2	6.6	11.4	*0.3**	2.1	21.5	:	0.7	6.0	4.5	12.3	17.	10

Note: WI=work intensity; ":" = Number of observations less than 20. * = Estimates based on 20 to 49 sample observations.

The share of the population composed of those living in households with children (including the children themselves) where not everyone of working age is in employment also varies across countries and in the opposite way, reflecting the much larger number of women who are not in work in Greece and Spain, as well as in Italy – though also in Germany – than in Denmark or Sweden.

In addition, there is a wide variation between countries – partly as a corollary of the differences in the share of people living alone as well as in couples – in the proportion of people living in households with three of more people of working age or with two people of working age and one or more aged 65 and over. This proportion is particularly high in a number of the new Member States, especially Poland, Slovakia, Slovenia and Latvia (in each case over 35%), though also in Spain and Portugal and to only a slightly extent in Greece and Italy (32-34%). By contrast, the proportion living in such large households is particularly small in Denmark, Sweden and Finland.

THE COMPOSITION OF THOSE AT RISK OF POVERTY

The division of the population between household types combined with the risk of poverty rates examined above determines the composition of social groups with income below the poverty line. This composition varies as much between Member States as the risk of poverty rates (Table 3). The main groups concerned differ considerably across the EU, as shown by the series of pie charts presented in the annex to this chapter, which indicate the five groups which make up the largest proportions of the total with income below the poverty line in each Member State. There are, however, common features of the groups in question in many cases.

Women aged 65 and over living alone, therefore, account for a relatively large proportion of the population at risk of poverty in many countries, reflecting both the tendency for women to live longer than men and for them to have lower pension levels. In Finland, therefore, they account for 16% of all those with income below the poverty line, in Slovenia, for almost 15% and in Estonia and Sweden, for 12%. On the other hand, in Luxembourg, the Netherlands and Poland, they account for only around 1-2% of the total and in the Czech Republic, Hungary and Slovakia, for 4-5%, reflecting the relatively low risk of poverty among older people, even those who live alone.

Table 3 Composition of those at risk of poverty by household type, 2005

	Lone parents	Lone women of 65+	Lone men of 65+	Single people <65		Couples 65+ w/o children	Couples with 1-2 children			Couples with 3+ children			Couples <65 w/o children		Other	Total
				WI<1	WI=1		WI<0.5	0.5<=WI	WI=1	WI<0.5	0.5<=WI	WI=1	WI<1	WI=1		
BE	14.8	7.4	2.7	8.6	1.7	11.5	7.8	6.5	1.6	10.4	5.7	1.4	7.0	:	14.5	100
CZ	16.2	5.2	:	6.8	1.1	:	12.6	17.0	2.7	6.0	4.9	:	9.9	:	18.9	100
DK	11.8	8.4	4.0	16.1	7.0	10.2	3.4	2.3	5.6	2.9	3.5	4.8	5.8	:	21.1	100
DE	19.6	8.6	2.1	11.5	2.5	12.3	9.1	7.7	2.8	3.3	3.7	:	8.7	0.9	9.8	100
EE	16.2	12.0	2.0	9.6	2.3	5.4	5.4	8.8	3.7	3.9	3.2	1.3	7.2	0.9	20.4	100
IE	17.0	8.5	4.1	5.1	0.8	7.0	8.3	6.6	1.6	9.8	7.7	2.5	5.8	0.6	15.5	100
GR	3.9	6.4	1.0	1.5	0.5	16.0	3.1	19.8	6.3	0.4	2.0	0.6	2.1	1.7	35.3	100
ES	3.1	6.2	1.1	1.8	0.8	14.0	5.3	17.9	5.3	1.1	6.3	1.2	4.7	0.8	31.1	100
FR	10.8	7.6	2.1	6.8	2.4	11.0	7.0	11.9	4.8	4.4	8.0	1.4	8.1	1.0	15.2	100
IT	4.6	8.8	1.7	3.8	1.8	12.1	3.9	19.3	2.2	0.8	6.7	0.6	2.0	0.6	33.0	100
CY	6.0	9.2	2.4	3.0	1.3	25.5	6.3	11.6	2.3	1.3	7.3	0.8	5.9	:	18.4	100
LV	9.5	9.4	1.4	8.0	2.1	5.3	5.9	9.9	4.4	2.4	4.9	1.0	9.1	:	28.8	100
LT	14.7	7.6	:	7.4	1.3	3.9	7.3	13.5	5.5	4.4	5.5	4.8	6.9	0.7	17.7	100
LU	8.1	:	:	5.1	4.4	4.8	7.8	19.1	9.5	2.7	11.9	5.4	5.6	:	20.0	100
HU	9.8	3.9	:	6.5	5.0	3.0	4.7	12.7	12.1	1.8	7.2	6.3	7.1	1.4	23.5	100
NL	9.3	2.5	:	8.2	2.8	3.7	8.0	10.5	8.8	3.5	12.0	7.3	9.3	1.9	14.9	100
AT	8.1	9.4	:	8.3	3.4	8.3	4.7	15.0	3.5	2.7	8.8	1.9	8.4	:	21.0	100
PL	5.0	1.3	0.3	4.1	1.0	2.1	8.8	10.7	5.0	5.2	7.4	4.9	4.5	0.6	40.1	100
PT	4.4	5.7	2.2	1.9	1.1	14.0	3.1	17.8	12.0	1.2	3.8	3.5	5.5	1.2	23.6	100
SI	6.2	14.7	:	9.5	1.4	8.2	8.2	13.7	3.0	3.9	3.1	1.5	6.9	:	21.3	100
SK	6.1	4.2	:	4.3	1.0	1.8	6.8	12.2	13.6	2.3	7.8	6.5	4.3	1.4	28.7	100
FI	8.8	15.9	3.0	18.8	2.4	6.7	7.2	4.7	1.9	3.9	5.5	2.4	7.5	0.8	12.8	100
SE	15.8	12.1	2.8	11.7	8.0	4.4	2.8	4.4	5.5	2.9	5.2	2.8	7.9	:	21.7	100
UK	18.4	9.3	2.6	3.8	3.4	14.2	0.8	2.6	8.5	:	1.8	6.6	2.6	2.5	26.2	100

Note: WI=work intensity; ":" = Number of observations less than 20.

Although men aged 65 and over living alone make up only a small proportion of the population with income below the poverty line in all countries, couples where both partners are 65 and over account for a relatively large share in many countries. This is particularly the case in Cyprus, where they represent 25% of the total with income below the poverty line, much more than in other Member States, primarily because of the high risk of poverty they face rather than because they make up a large share of the population. They also account for a relatively large share of those at risk of poverty in the other southern countries, Greece (16%), Spain, Portugal (14% in each) and Italy (12%), as well as in the UK (14%) and Germany (12%). Apart from in Germany, this reflects both a relatively high risk of population among such households – and the fact that the pensions received by couples are in many cases not sufficient to give them an income above the poverty line – and the relatively large number of them.

As indicated above, lone parents bringing up a dependent child, almost all of whom are women, also face a relatively high risk of poverty in most countries. However, the fact that their share of total population varies substantially between countries means that the share of the total at risk of poverty also varies markedly across the EU. In the Czech Republic, Estonia, Ireland and Lithuania, where the risk of poverty rate is 40% or more, lone parents account for 15–17% of the population with income below the poverty line. They also account for a similar share in Belgium and Sweden, where the risk of poverty is much lower because of their relatively large numbers, while they account for an even larger share in Germany and the UK (18–20%) for the same reason.

By contrast, in Greece and Spain, lone parents make up under 4% of those with income below the poverty line despite the high risk they face because of their relatively small numbers, which is also the case in Poland, where they account for just 5% of the total below the poverty line even though around 40% of them have income below this line.

People living alone of working age are also vulnerable to the risk of poverty even if they do not have a dependent child if they are not working. Such people make up a particularly large share of those with income below the poverty line in Finland (19%). Denmark (16%), Germany and Sweden (12% in each), not so much because of their high risk of poverty – indeed in Sweden, it is lower than anywhere else in the EU – but because of their relatively large numbers. The large number of people of working age living alone in Denmark and Sweden means that even those in employment throughout the year make up 7–8% of the total below the poverty line in these two countries.

Joblessness is equally responsible for a large number of people sharing a household with their spouse or partner or others of working age having income below the poverty line. This is especially the case if for those with children who make up a substantial proportion of those at risk of poverty in most countries. In the Czech Republic, therefore, those living in couple

households with 1-2 dependent children and with no-one in work or with only one person working and then for only part of the year (i.e. with work intensity of less than 0.5) make up almost 13% of the total at risk of poverty, while those with only one person employed or with both people working for only part of the year, make up a further 17%. People in the latter type of household account for an even larger share of the total at risk (18-20%) in all four southern countries, Greece, Spain, Italy and Portugal, as well as in Luxembourg). By contrast, in Denmark and the UK, where such couples make up a relatively proportion of total population, they account for under 3% of those at risk.

In Belgium and Ireland, those living in couple households with three or more children where neither is working or where one person works only for part of the year make up 10% of the total at risk of poverty, much more than in other countries. In the two other Benelux countries, Luxembourg and the Netherlands, those living in such households where only one person is working throughout the year account for 12% of the total.

Those living in households without children where not everyone is working account for a relatively small proportion of those with income below the poverty line in most countries, though in the Czech Republic, Latvia and the Netherlands, the figure is around 9-10%.

Joblessness, however, is not the only reason for people of working age being at risk of poverty. Low wages also seem to play a role in a number of Member States if the people concerned have children. This is especially the case in Slovakia, Hungary, Portugal where those living in households with 1-2 children and where everyone of working age is in employment, make up 12-14% of the total with income below the poverty line, while in the Netherlands, Luxembourg and the UK, they make up 9-10%. The figure in Hungary and Slovakia is increased to 18-20% if households with 3 or more children are included and in the Netherlands and the UK, to 15-16%.

In both the Netherlands and the UK, this relatively large proportion can be attributed to a large extent to at least one of the people in employment working part-time, women in particular. This is not the case in Hungary and Slovakia, or indeed Portugal, where relatively few people work part-time. In these countries, therefore, it is predominantly a result of the low wages paid to those in full-time employment.

COMPOSITION OF THOSE AT RISK OF POVERTY BY BROAD AGE GROUP

The variation in the composition of those with income below the poverty line across the EU is associated with variations in the age composition of the total concerned. Since the division of population does not differ much between countries, differences in the age composition largely reflect differences in the risk of poverty rates, which are substantial. Among children, the

proportion with income below the poverty line in 2004 varied from 31% in Poland and over 25% in Spain, Lithuania, Luxembourg and Portugal to 8% in Sweden and 5% in Denmark (Table 4).

The risk of poverty among those of working age is reflected in the risk among children to the extent that they live in the same households. For those of working age (those aged 15–64), therefore, the risk ranged from 22% in Poland and 19–20% in the three Baltic States, Greece, Spain and Portugal to 5% in Denmark and 7–8% in the Netherlands, the Czech Republic, Slovenia and Sweden.

Among those of 65 and over, the risk of poverty varies much more across the EU, ranging from 50% in Cyprus, 36% in Ireland, around 30% in Greece and Spain and just below in Portugal to around 6% in the Czech Republic, Slovakia and Hungary and just 4% in the Netherlands.

Table 4 Poverty rates by age

	Total population aged 0-15	Total population aged 16-64	Total population aged 65+
BE	18.6	12.5	19.4
CZ	15.7	7.9	5.5
DK	5.1	5.0	13.4
DE	12.4	11.4	14.6
EE	24.5	19.0	16.3
IE	21.6	17.1	36.0
GR	24.1	20.3	30.4
ES	25.7	18.9	30.3
FR	15.6	12.3	15.9
IT	21.2	15.4	22.2
CY	13.5	11.5	49.8
LV	23.0	20.4	21.4
LT	27.1	19.7	13.8
LU	25.7	15.0	8.0
HU	19.8	12.7	6.4
NL	11.3	7.2	3.8
AT	15.2	11.1	13.5
PL	30.9	22.4	8.1
PT	25.8	19.5	28.7
SI	9.9	8.0	14.8
SK	18.3	13.3	6.3
FI	11.1	10.2	12.3
SE	8.3	7.9	8.0
UK	21.8	14.9	25.9

These variations in risk of poverty rates in the broad age groups are reflected to a large degree in variations in the age composition of those with income below the poverty line, allowing for differences in overall rates. While children make up 29–30% of the total population at risk in

Luxembourg and the Netherlands and around 25–27% in the Czech Republic, Ireland, Hungary and Poland, they account for only 15–17% in Denmark, Germany, Greece, Cyprus, Latvia, Slovenia and Finland (Table 5).

Table 5 Division of population at risk of poverty by age group

	Total poor population aged 0–15	Total poor population aged 16–64	Total poor population aged 65+	Total poor population
BE	23.5	54.0	22.4	100.0
CZ	27.2	65.4	7.4	100.0
DK	16.7	61.1	22.2	100.0
DE	15.2	62.6	22.2	100.0
EE	18.7	62.7	18.6	100.0
IE	24.7	56.3	19.0	100.0
GR	15.3	58.2	26.5	100.0
ES	18.4	56.4	25.2	100.0
FR	20.4	58.1	21.5	100.0
IT	18.5	58.1	23.5	100.0
CY	15.8	46.7	37.4	100.0
LV	16.9	64.5	18.7	100.0
LT	23.8	63.5	12.7	100.0
LU	29.8	62.6	7.6	100.0
HU	24.7	67.6	7.7	100.0
NL	28.8	64.1	7.1	100.0
AT	20.5	60.6	18.9	100.0
PL	24.7	70.3	5.0	100.0
PT	19.0	57.2	23.9	100.0
SI	14.9	59.8	25.4	100.0
SK	22.0	71.5	6.5	100.0
FI	15.8	59.4	24.8	100.0
SE	18.1	63.3	18.6	100.0
UK	23.4	52.2	24.4	100.0

Those of working age make up over 70% of the total at risk in Poland and Slovakia and 68% in Hungary but 54% in Belgium, 52% in the UK and 47% in Cyprus, where those age 65 and over account for 37% of the total, much more than anywhere else in the EU. Elsewhere, people in the latter age group make up around 27% of the total at risk in Greece and around 25% in Spain, Slovenia and Finland and just under in the UK, but for only 7–8% in the Czech Republic, Luxembourg, Hungary and the Netherlands and for just 6–7% in Slovakia.

CONCLUDING REMARKS

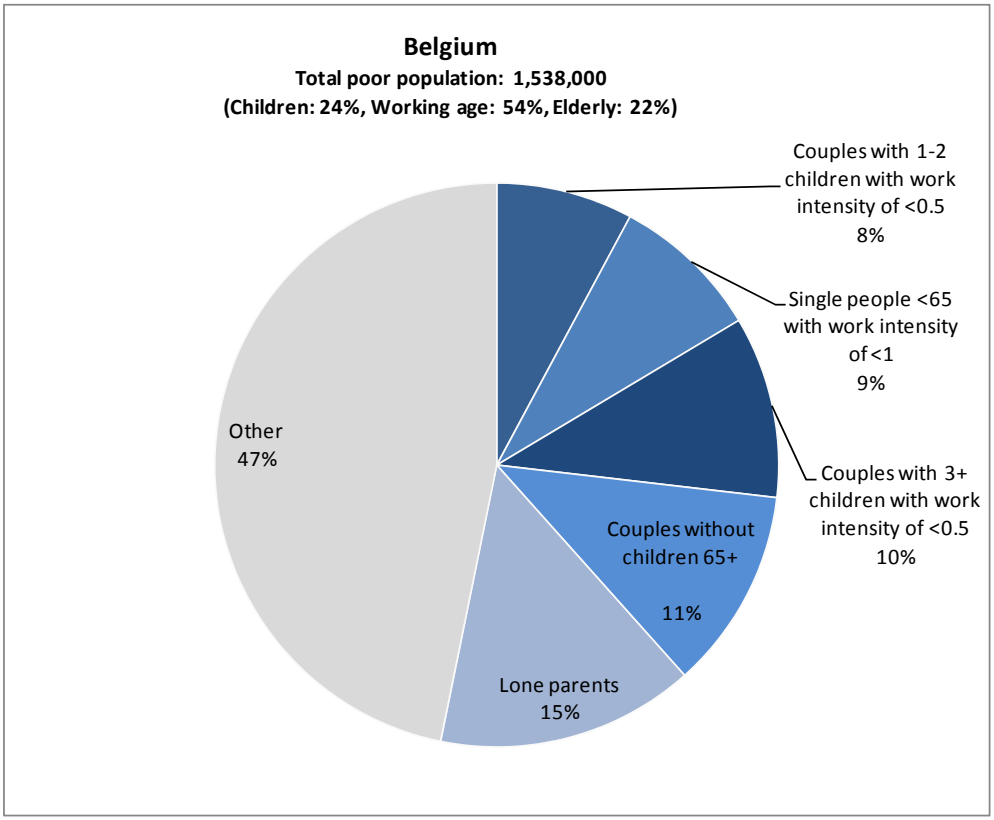
The above analysis indicates that there are differences between the social groups which have the highest risk of poverty, in the sense that the proportion of them with income below 60% of the median in the country where they live is relatively large, and those that make up the bulk of the population with income below this level. These differences reflect the differing composition of households across the EU – and, in particular, the extent to which people live alone instead of sharing a house with a spouse, partner or other people – as well as differences in the level of pensions and social transfers, especially transfers to the unemployed. They also reflect, however, the level of wages in different countries and the ability of households to secure a level of income above the poverty line without more than one person being in employment. This is especially the case for households where there are dependent children, which perhaps points to a lack of affordable childcare to allow both partners to work.

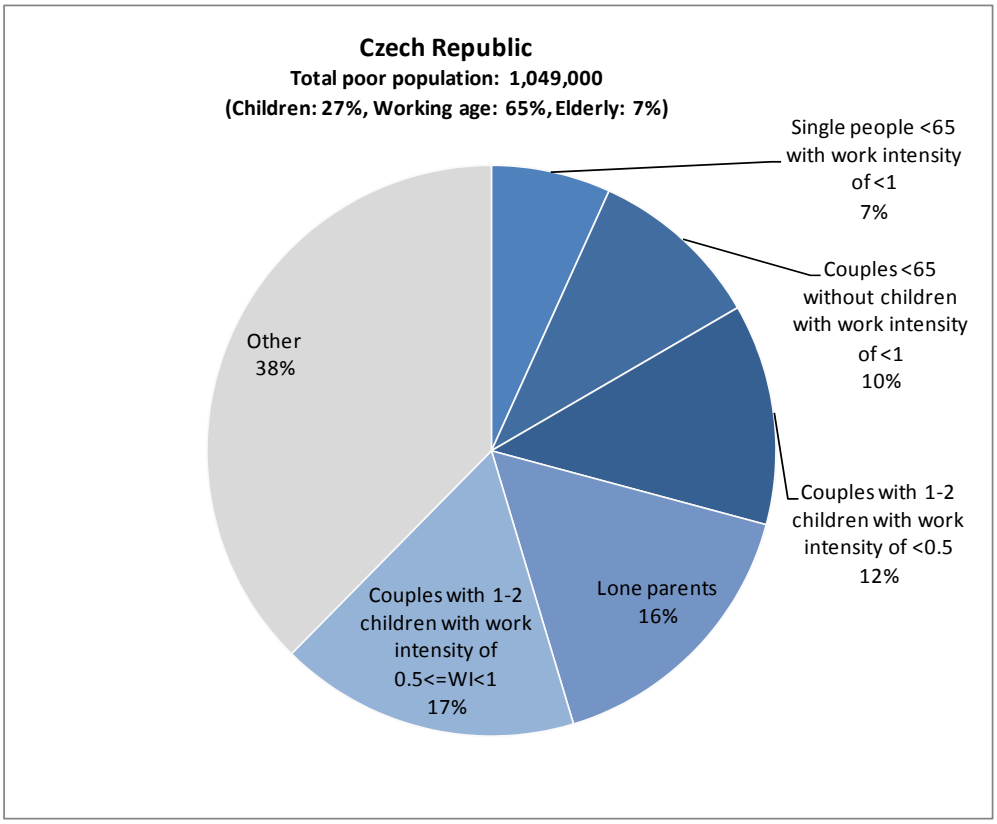
In 14 of the 24 Member States, therefore, couples with one or two children where one of the partners is not working (at least throughout the year) are the largest group among those at risk of poverty, while in another three countries, they are the second largest group. All of the new Member States are included in the first set of countries, apart from Estonia and Cyprus, which are included in the second set. In another two countries, Belgium and Ireland, couples with three or more children where one of the partners is not in work represent the largest group, and these are the second or third largest group among the total at risk of poverty in 9 of the countries where those with one or two children are the largest.

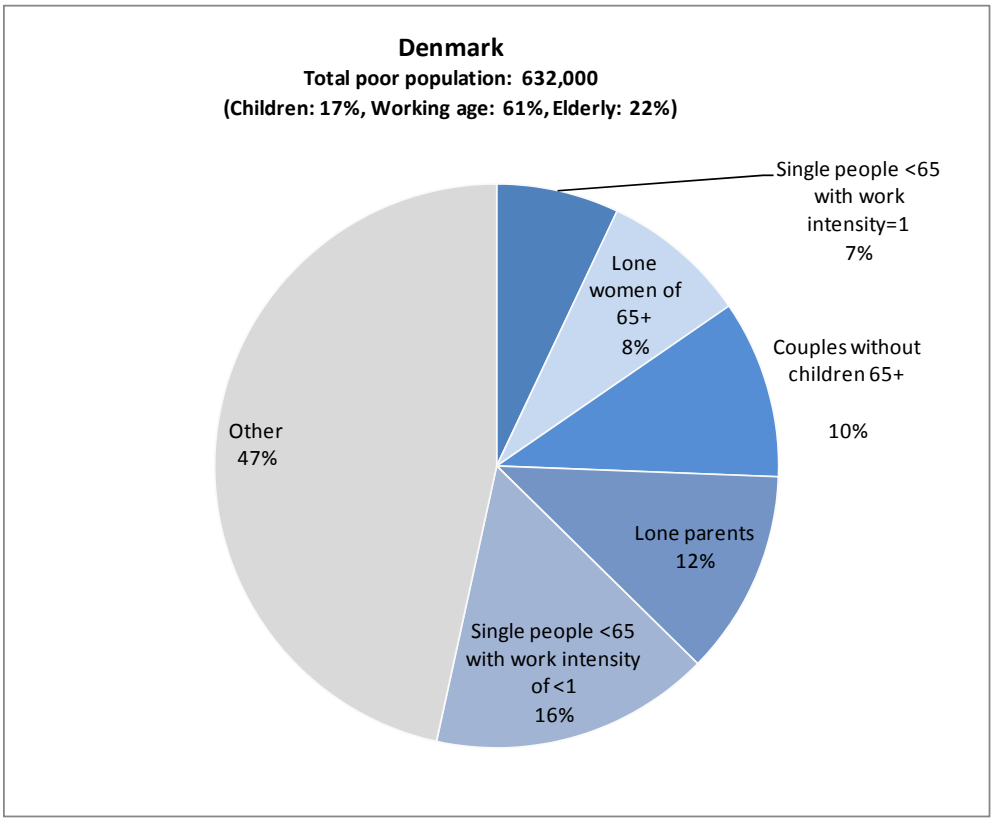
In other countries, people living alone represent the largest group among the population with income below the poverty line. This is the case in Denmark, Finland and Sweden as well as in Estonia, where those of working age living alone feature among the main groups with this level of income, especially if they are not employed throughout the year, though also in Denmark and Sweden, if they are. Lone parents also figure prominently among the main groups with income below the poverty line in these four countries – though to a lesser extent in Finland than in the other three – as they do in Germany and the UK.

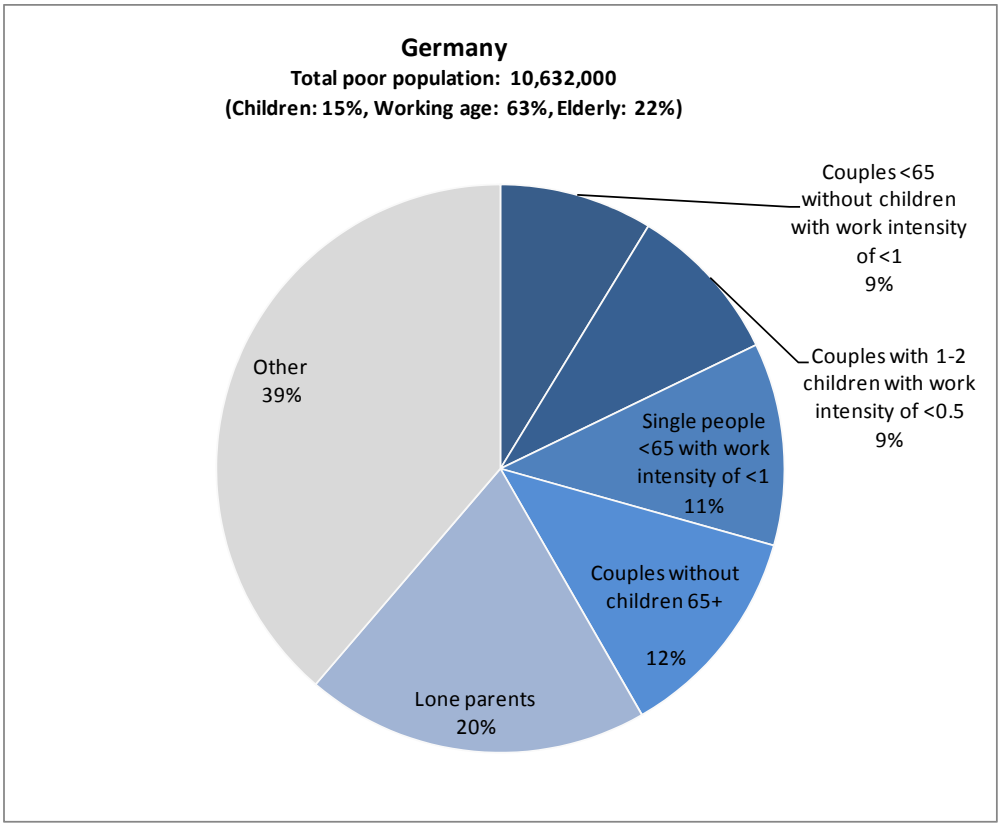
In addition, in Denmark, Estonia, Finland, Sweden and the UK, as well as Cyprus, people of 65 and over feature among the main groups with this level of income, either as couples or women of this age living alone or both. This is also the case in Greece, Italy, Portugal and Slovenia.

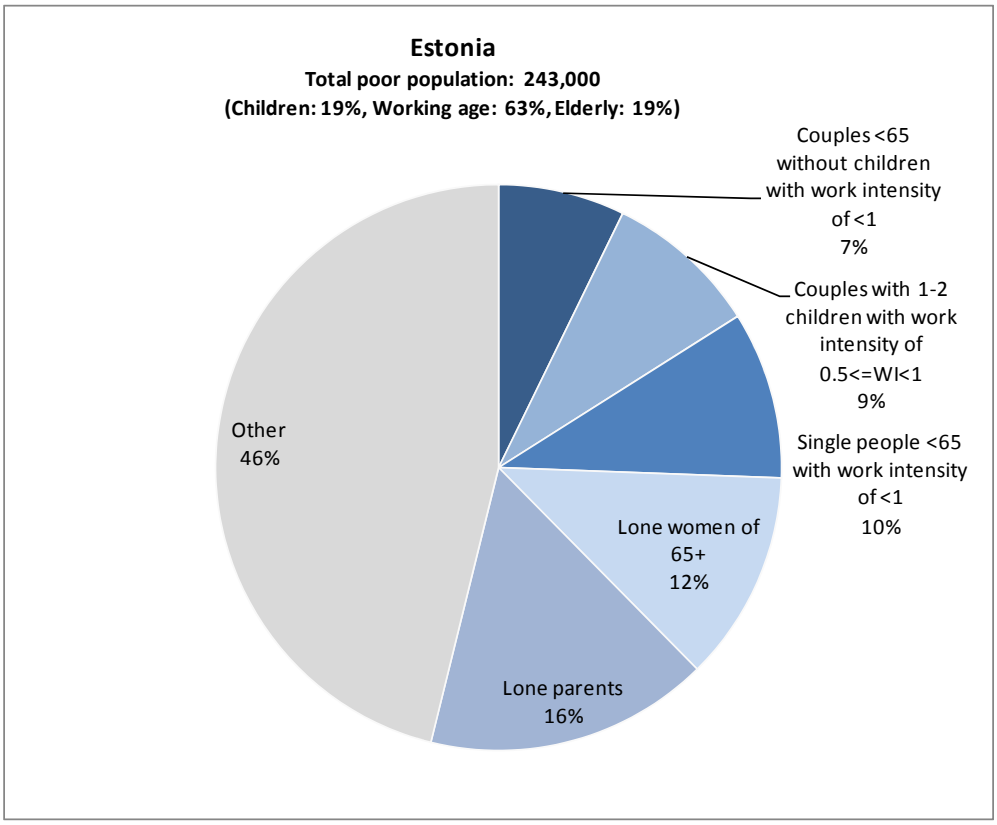
This diversity among the social groups which make up the bulk of those at risk of poverty across the EU emphasises the difference between Member States in the way that policy would need to be focused in order to reduce the overall risk by most.

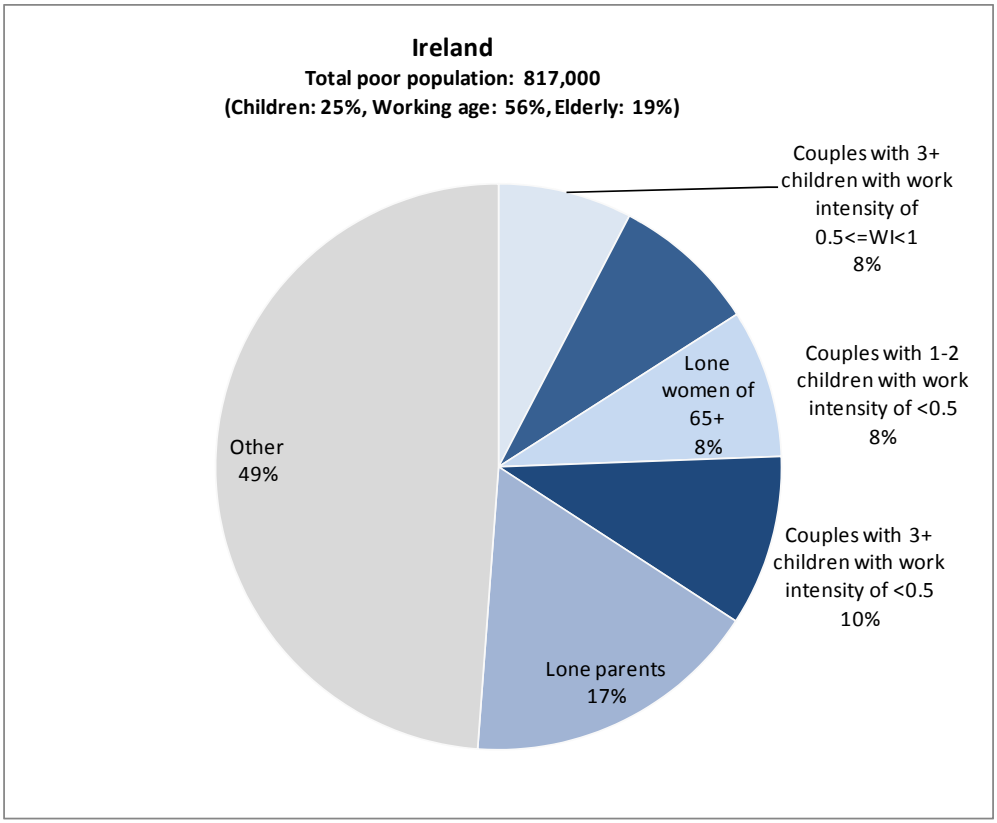

Belgium
Total poor population: 1,538,000
(Children: 24%, Working age: 54%, Elderly: 22%)
Couples with 1-2 children with work intensity of <0.5 8%
Single people <65 with work intensity of <1 9%
Couples with 3+ children with work intensity of <0.5 10%
Couples without children 65+ 11%
Lone parents 15%
Other 47%

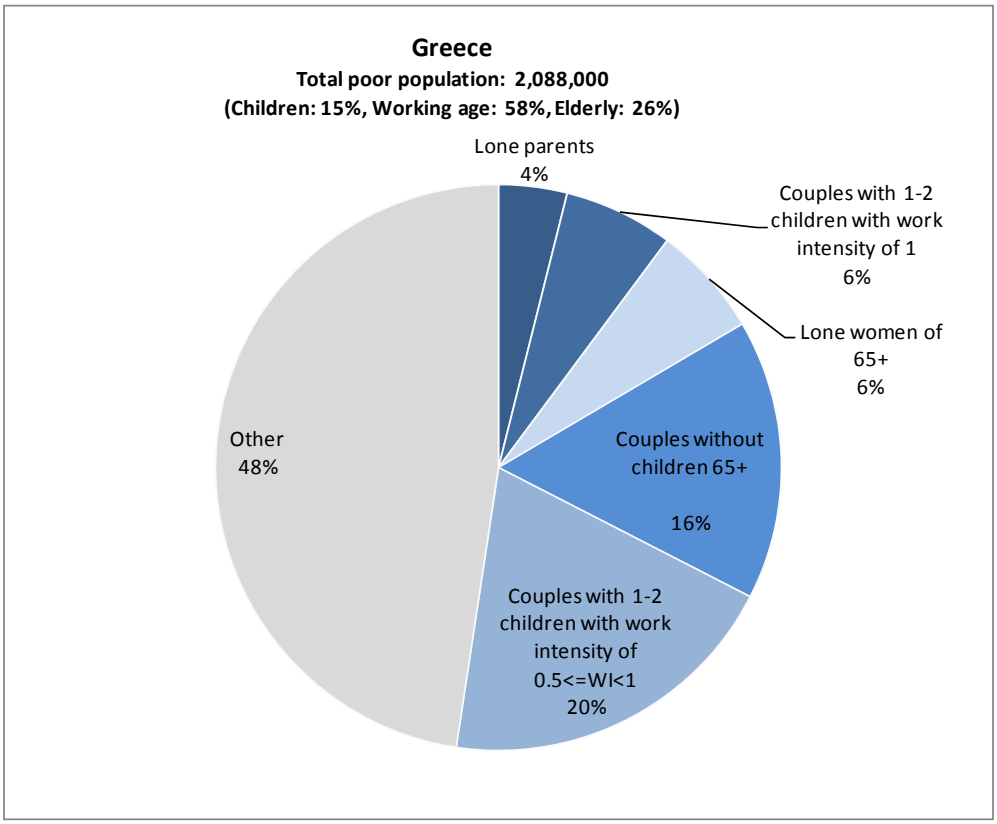

Czech Republic
Total poor population: 1,049,000
(Children: 27%, Working age: 65%, Elderly: 7%)
Single people <65 with work intensity of <1 7%
Couples <65 without children with work intensity of <1 10%
Couples with 1-2 children with work intensity of <0.5 12%
Lone parents 16%
Couples with 1-2 children with work intensity of 0.5<=WI<1 17%
Other 38%

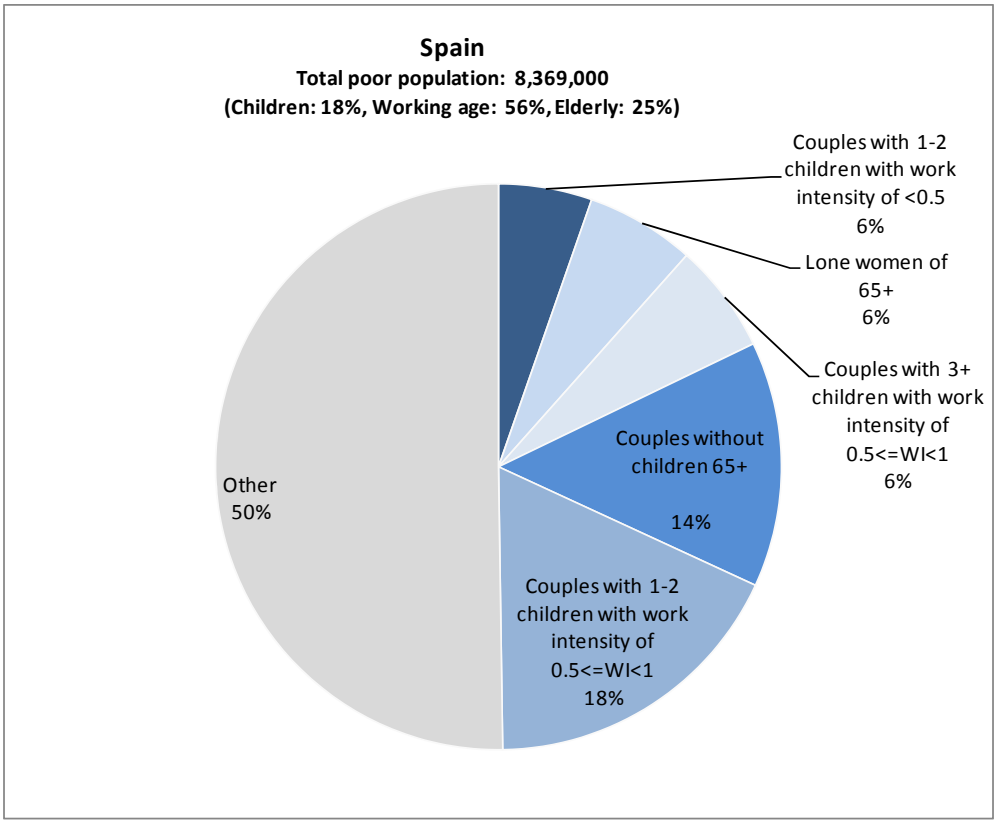

Denmark
Total poor population: 632,000
(Children: 17%, Working age: 61%, Elderly: 22%)
Single people <65 with work intensity=1 7%
Lone women of 65+ 8%
Couples without children 65+ 10%
Lone parents 12%
Single people <65 with work intensity of <1 16%
Other 47%

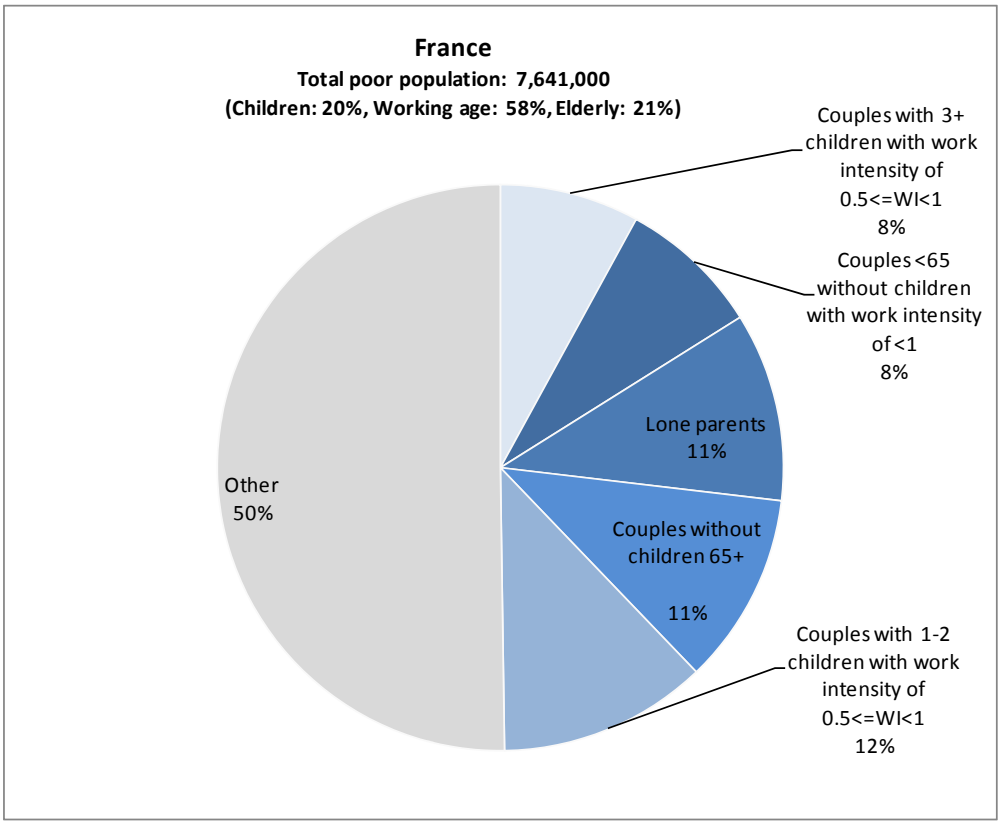

Germany
Total poor population: 10,632,000
(Children: 15%, Working age: 63%, Elderly: 22%)
Couples <65 without children with work intensity of <1 9%
Couples with 1-2 children with work intensity of <0.5 9%
Single people <65 with work intensity of <1 11%
Couples without children 65+ 12%
Lone parents 20%
Other 39%

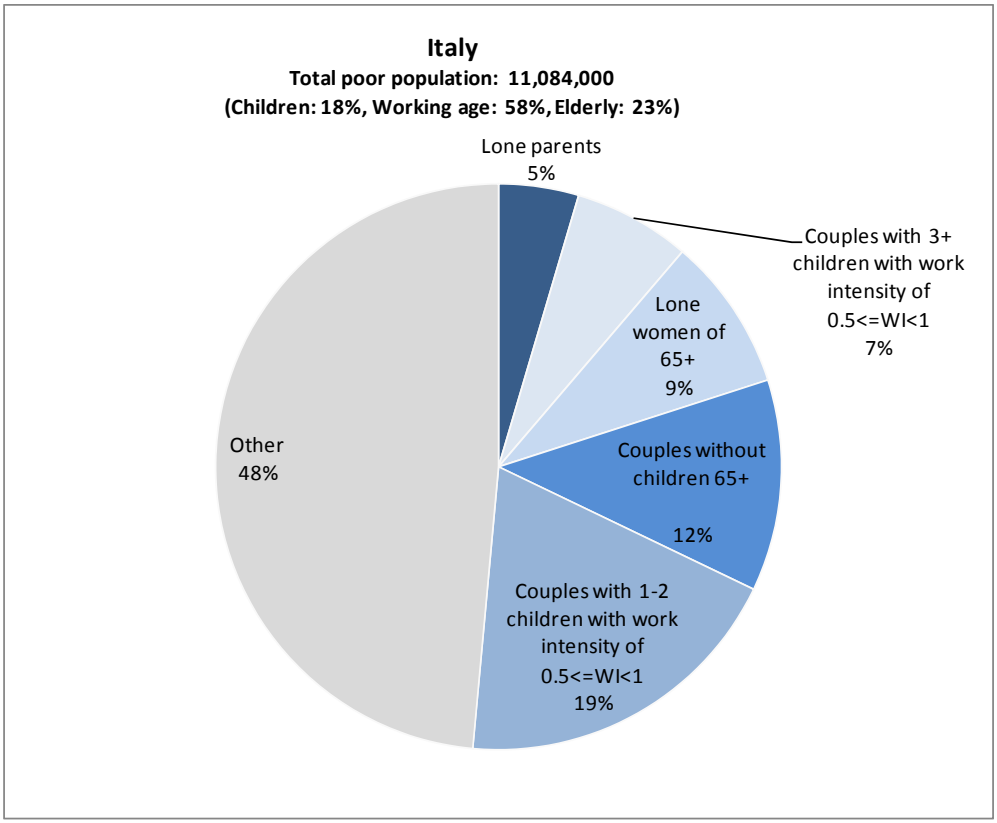

Estonia
Total poor population: 243,000
(Children: 19%, Working age: 63%, Elderly: 19%)
Couples <65 without children with work intensity of <1 7%
Couples with 1-2 children with work intensity of 0.5<=WI<1 9%
Single people <65 with work intensity of <1 10%
Lone women of 65+ 12%
Lone parents 16%
Other 46%

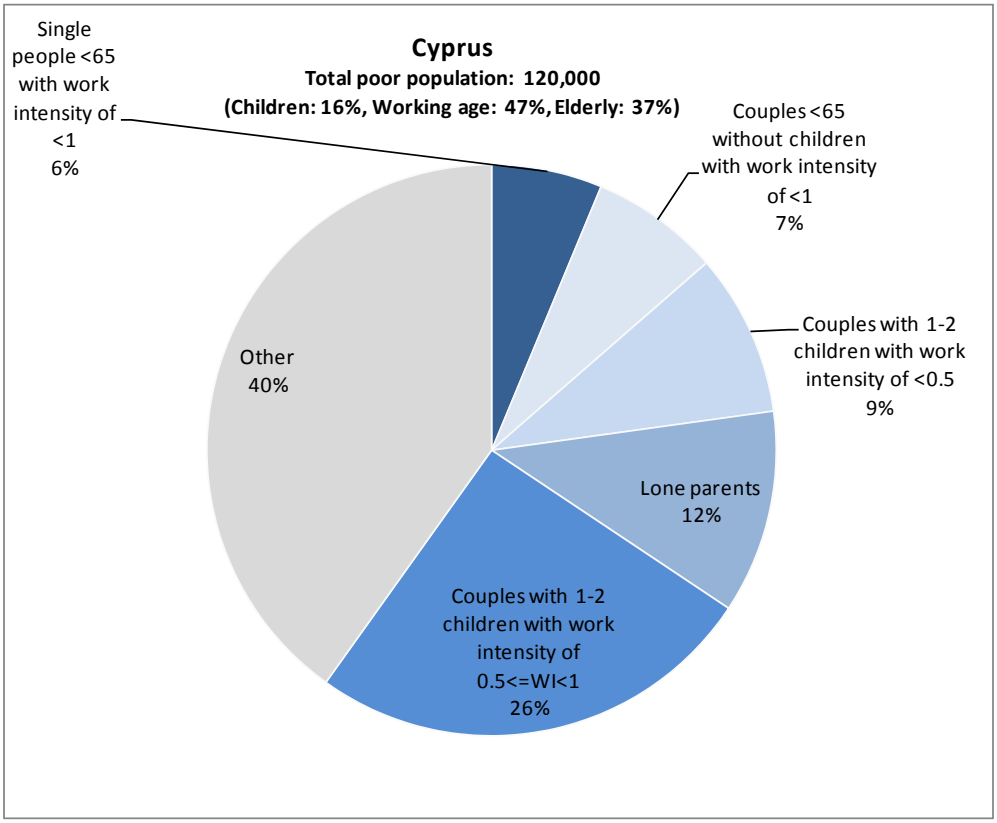

Ireland
Total poor population: 817,000
(Children: 25%, Working age: 56%, Elderly: 19%)
Couples with 3+ children with work intensity of 0.5<=WI<1 8%
Couples with 1-2 children with work intensity of <0.5 8%
Lone women of 65+ 8%
Couples with 3+ children with work intensity of <0.5 10%
Lone parents 17%
Other 49%

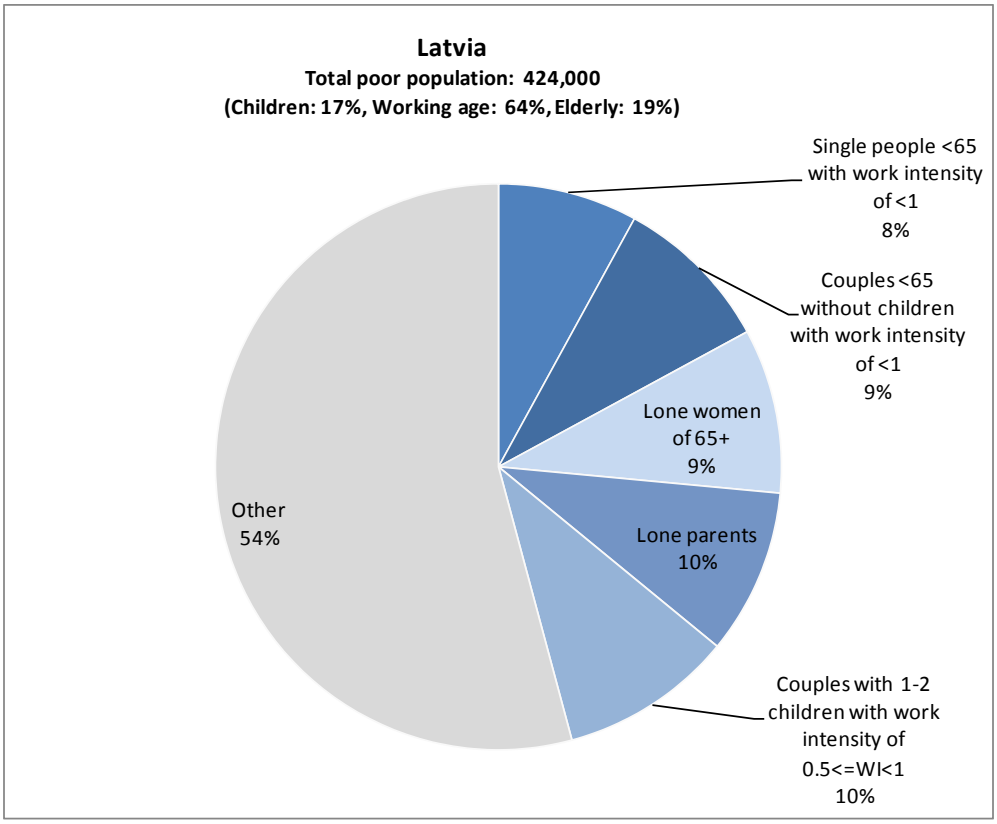

Greece
Total poor population: 2,088,000
(Children: 15%, Working age: 58%, Elderly: 26%)
Lone parents
4%
Couples with 1-2 children with work intensity of 1
6%
Lone women of 65+
6%
Couples without children 65+
16%
Couples with 1-2 children with work intensity of 0.5<=WI<1
20%
Other
48%

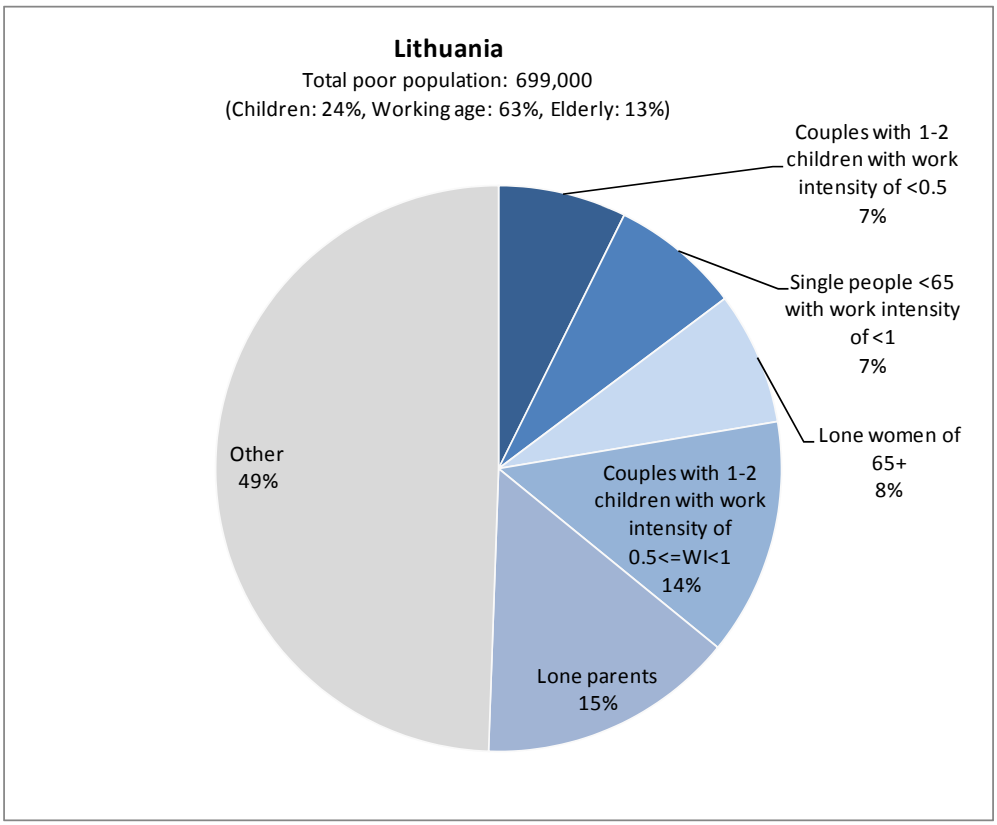

Spain
Total poor population: 8,369,000
(Children: 18%, Working age: 56%, Elderly: 25%)
Couples with 1-2 children with work intensity of <0.5
6%
Lone women of 65+
6%
Couples with 3+ children with work intensity of 0.5<=WI<1
6%
Couples without children 65+
14%
Couples with 1-2 children with work intensity of 0.5<=WI<1
18%
Other
50%

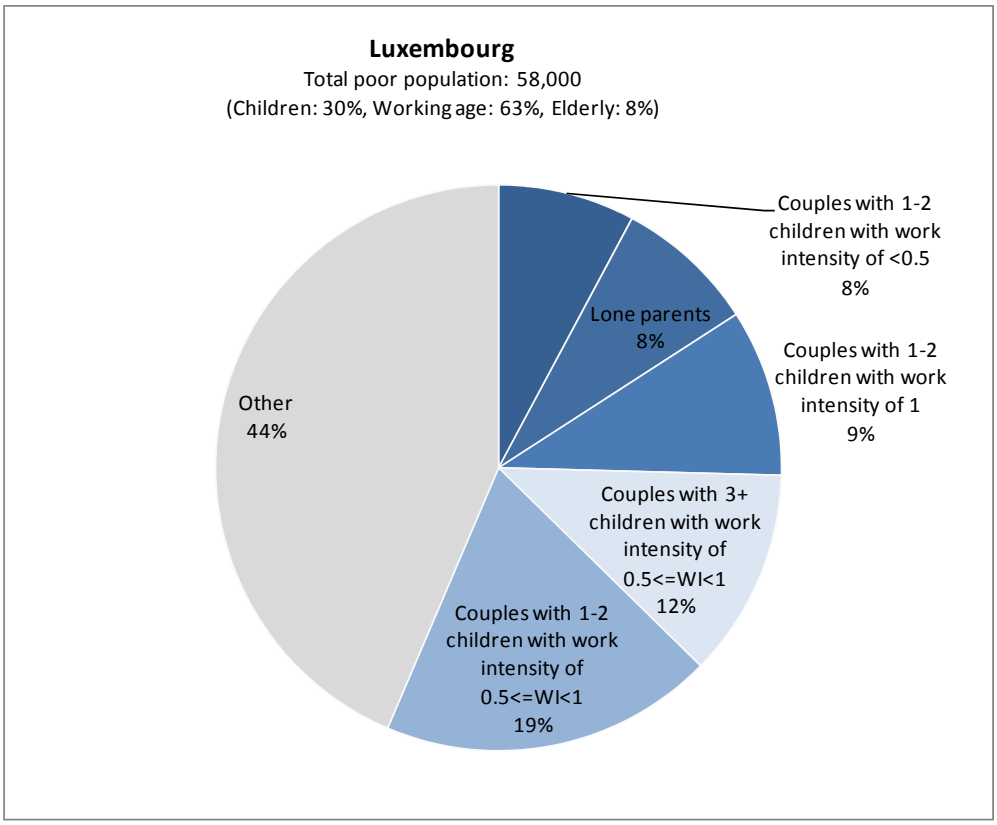

France
Total poor population: 7,641,000
(Children: 20%, Working age: 58%, Elderly: 21%)
Couples with 3+ children with work intensity of 0.5<=WI<1 8%
Couples <65 without children with work intensity of <1 8%
Lone parents 11%
Couples without children 65+ 11%
Couples with 1-2 children with work intensity of 0.5<=WI<1 12%
Other 50%

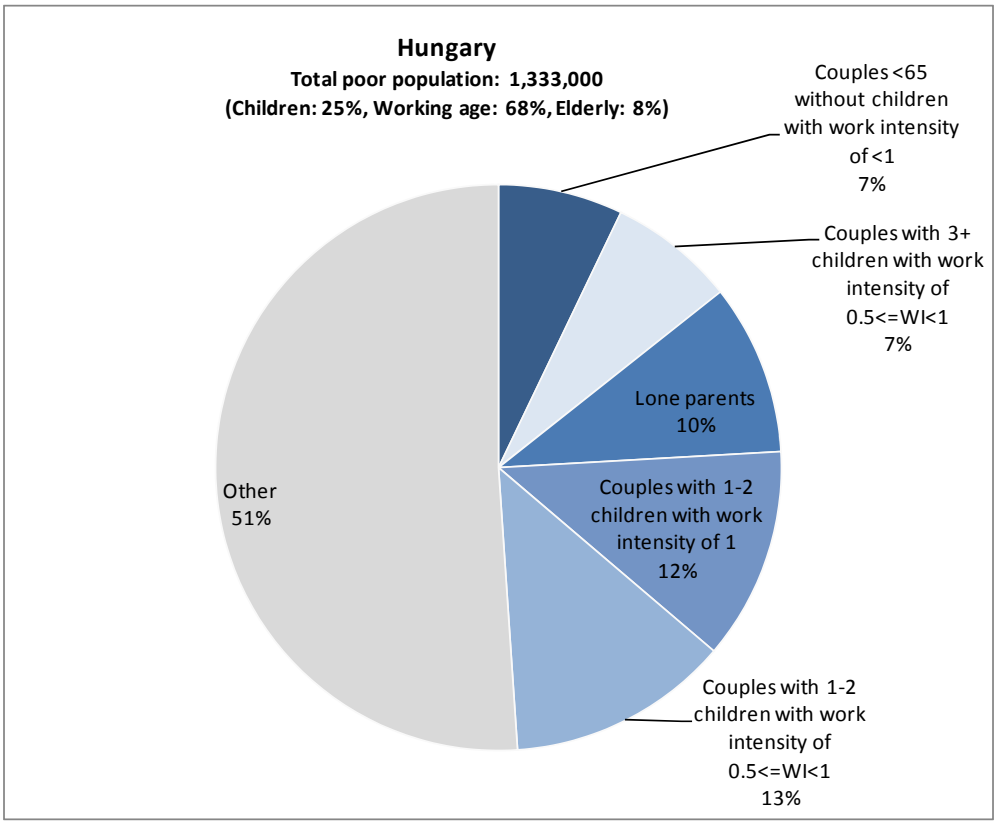

Italy
Total poor population: 11,084,000
(Children: 18%, Working age: 58%, Elderly: 23%)
Lone parents 5%
Couples with 3+ children with work intensity of 0.5<=WI<1 7%
Lone women of 65+ 9%
Couples without children 65+ 12%
Couples with 1-2 children with work intensity of 0.5<=WI<1 19%
Other 48%

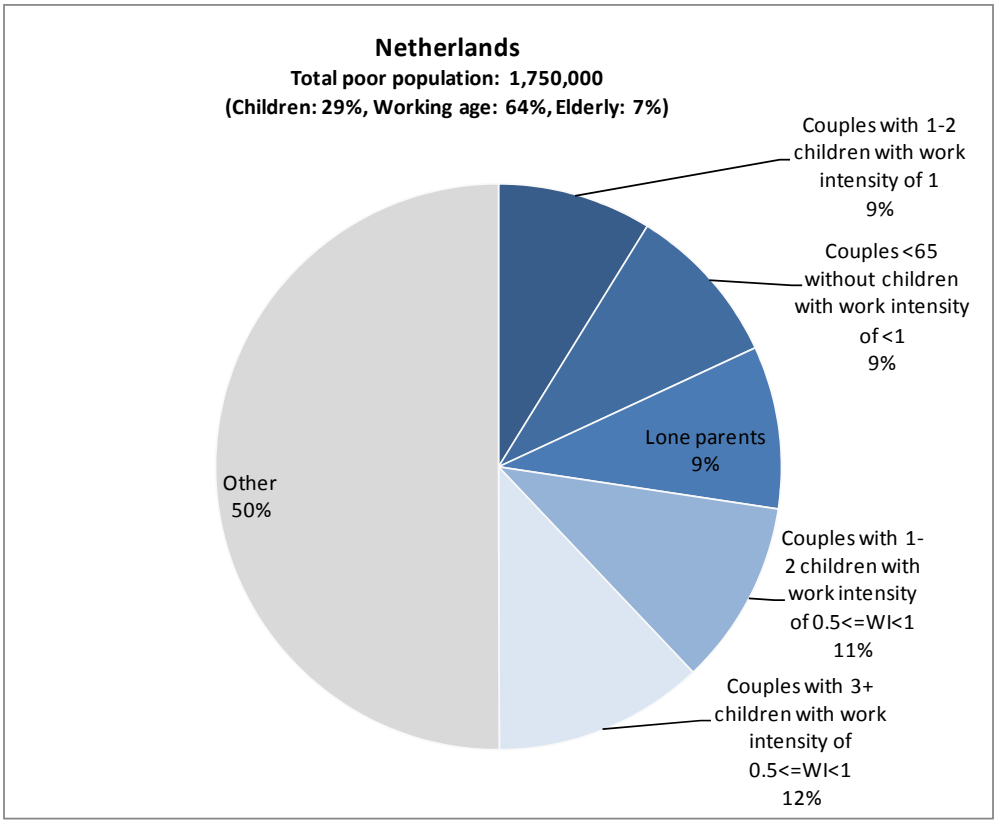

Cyprus
Total poor population: 120,000
(Children: 16%, Working age: 47%, Elderly: 37%)
Single people <65 with work intensity of <1 6%
Couples <65 without children with work intensity of <1 7%
Couples with 1-2 children with work intensity of <0.5 9%
Lone parents 12%
Couples with 1-2 children with work intensity of 0.5<=WI<1 26%
Other 40%

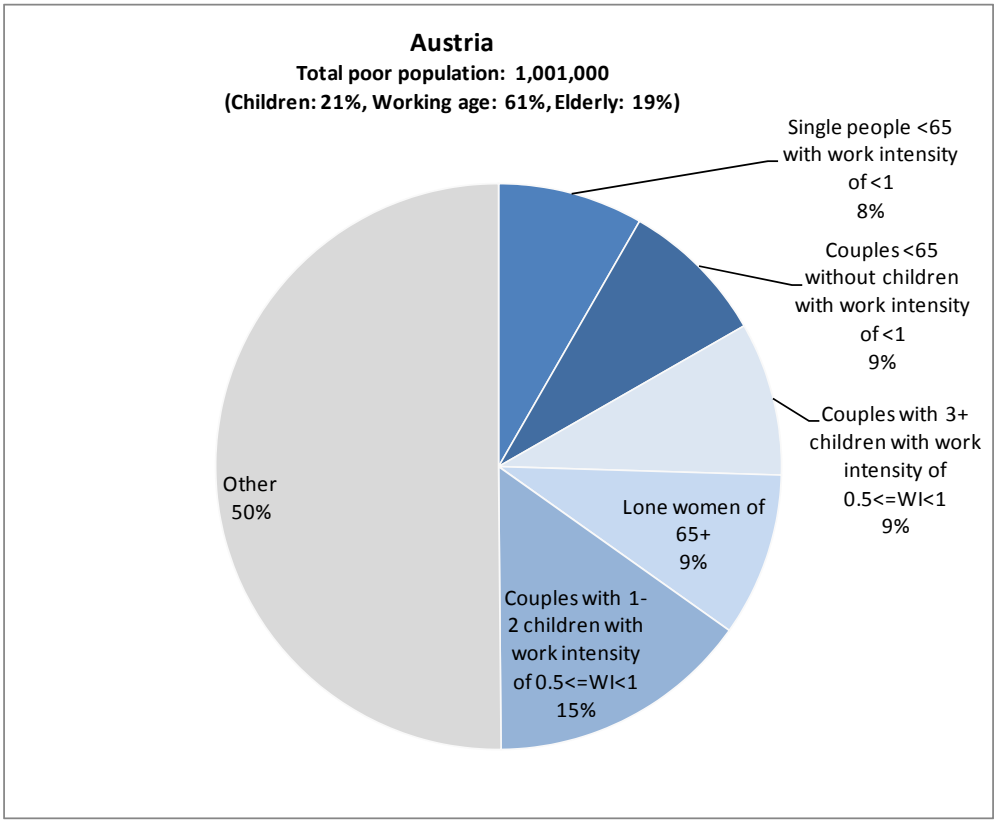

Latvia
Total poor population: 424,000
(Children: 17%, Working age: 64%, Elderly: 19%)
Single people <65 with work intensity of <1 8%
Couples <65 without children with work intensity of <1 9%
Lone women of 65+ 9%
Lone parents 10%
Couples with 1-2 children with work intensity of 0.5<=WI<1 10%
Other 54%

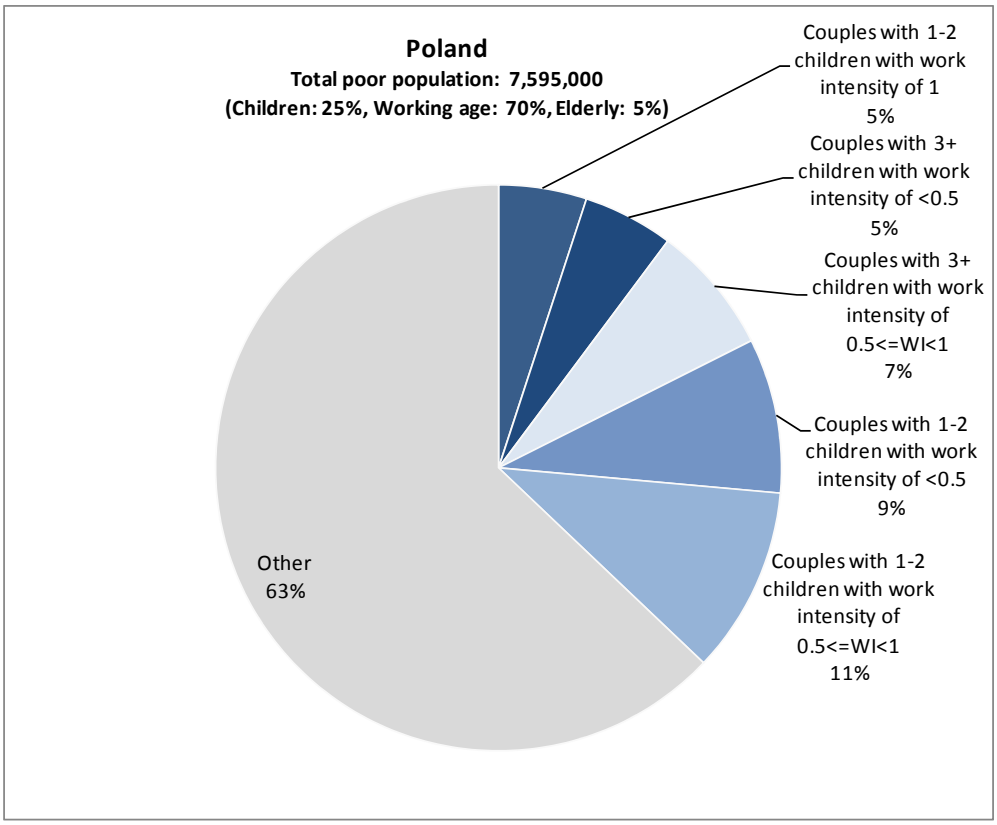

Lithuania
Total poor population: 699,000
(Children: 24%, Working age: 63%, Elderly: 13%)
Couples with 1-2 children with work intensity of <0.5 7%
Single people <65 with work intensity of <1 7%
Lone women of 65+ 8%
Couples with 1-2 children with work intensity of 0.5<=WI<1 14%
Lone parents 15%
Other 49%

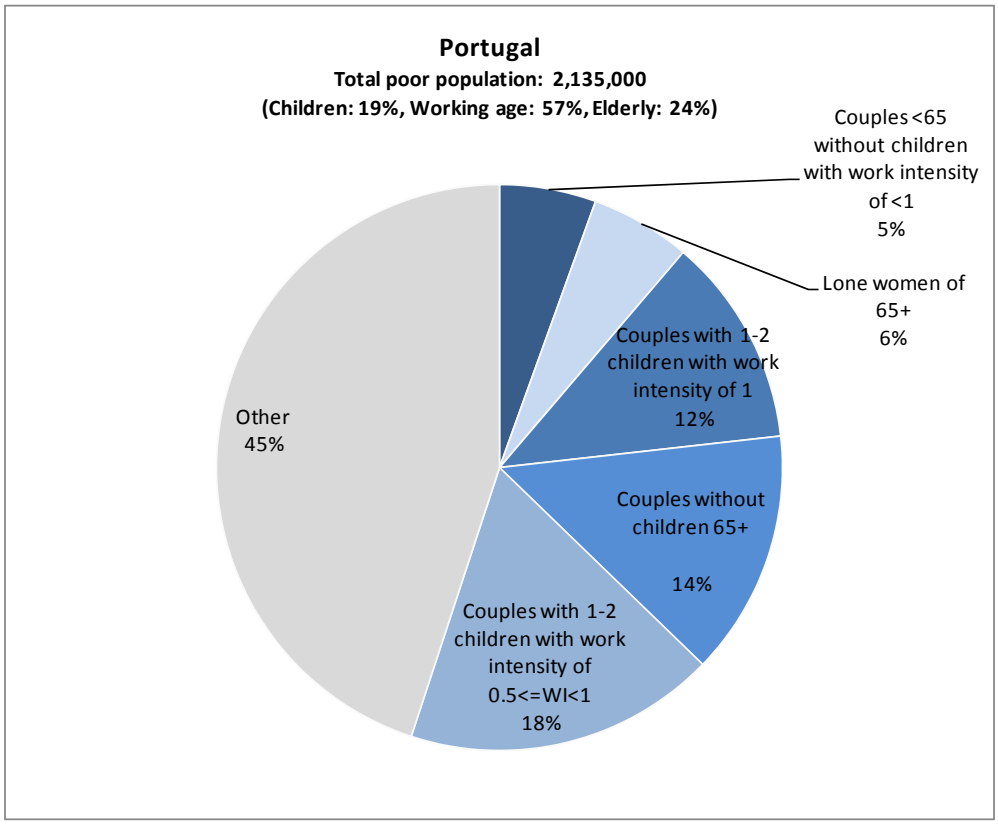

Luxembourg
Total poor population: 58,000
(Children: 30%, Working age: 63%, Elderly: 8%)
Couples with 1-2 children with work intensity of <0.5 8%
Lone parents 8%
Couples with 1-2 children with work intensity of 1 9%
Couples with 3+ children with work intensity of 0.5<=WI<1 12%
Couples with 1-2 children with work intensity of 0.5<=WI<1 19%
Other 44%

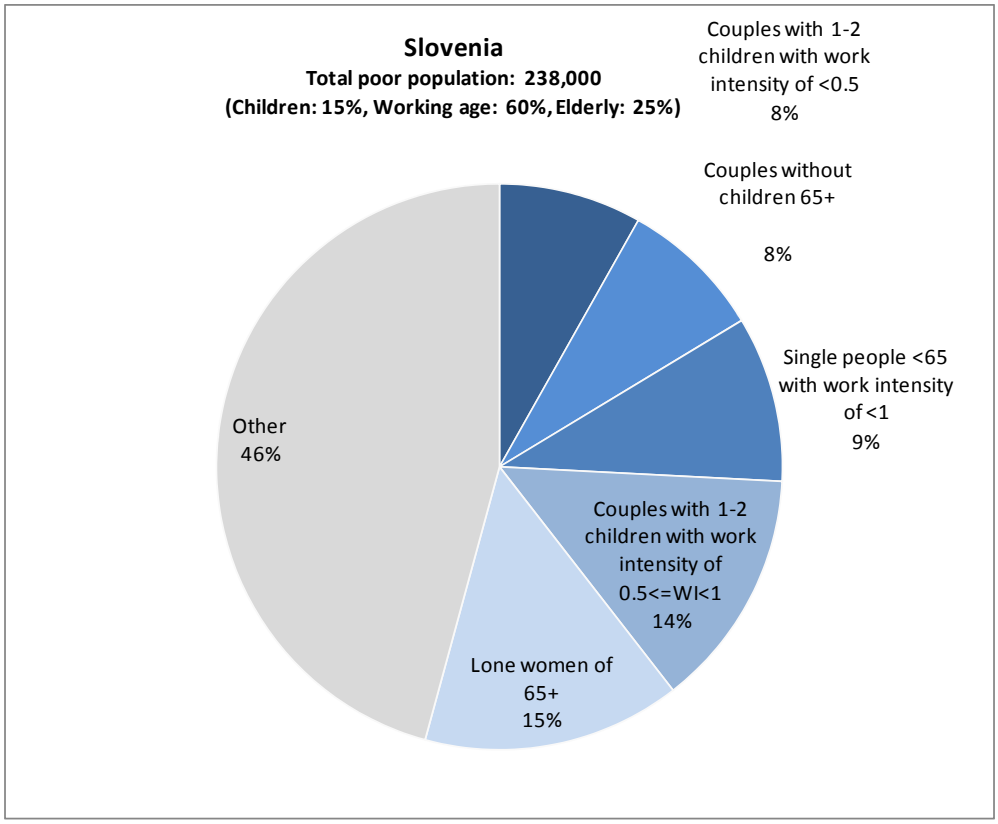

Hungary
Total poor population: 1,333,000
(Children: 25%, Working age: 68%, Elderly: 8%)
Couples <65 without children with work intensity of <1 7%
Couples with 3+ children with work intensity of 0.5<=WI<1 7%
Lone parents 10%
Couples with 1-2 children with work intensity of 1 12%
Couples with 1-2 children with work intensity of 0.5<=WI<1 13%
Other 51%

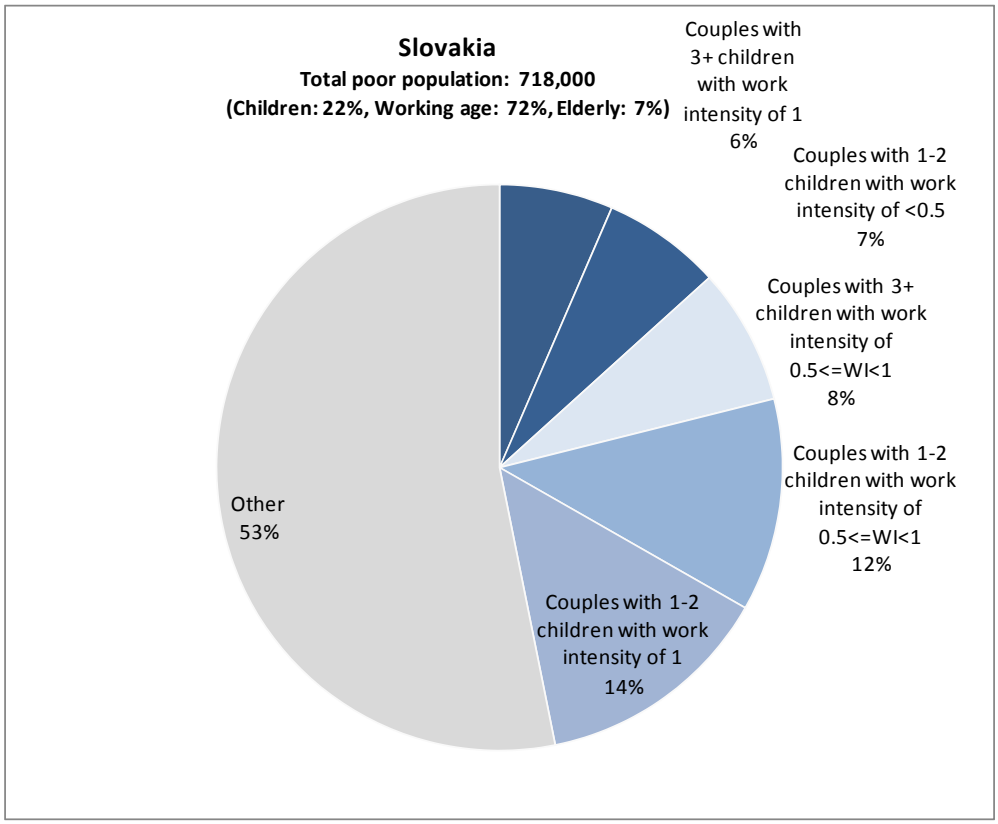

Netherlands
Total poor population: 1,750,000
(Children: 29%, Working age: 64%, Elderly: 7%)
Couples with 1-2 children with work intensity of 1 9%
Couples <65 without children with work intensity of <1 9%
Lone parents 9%
Couples with 1-2 children with work intensity of 0.5<=WI<1 11%
Couples with 3+ children with work intensity of 0.5<=WI<1 12%
Other 50%

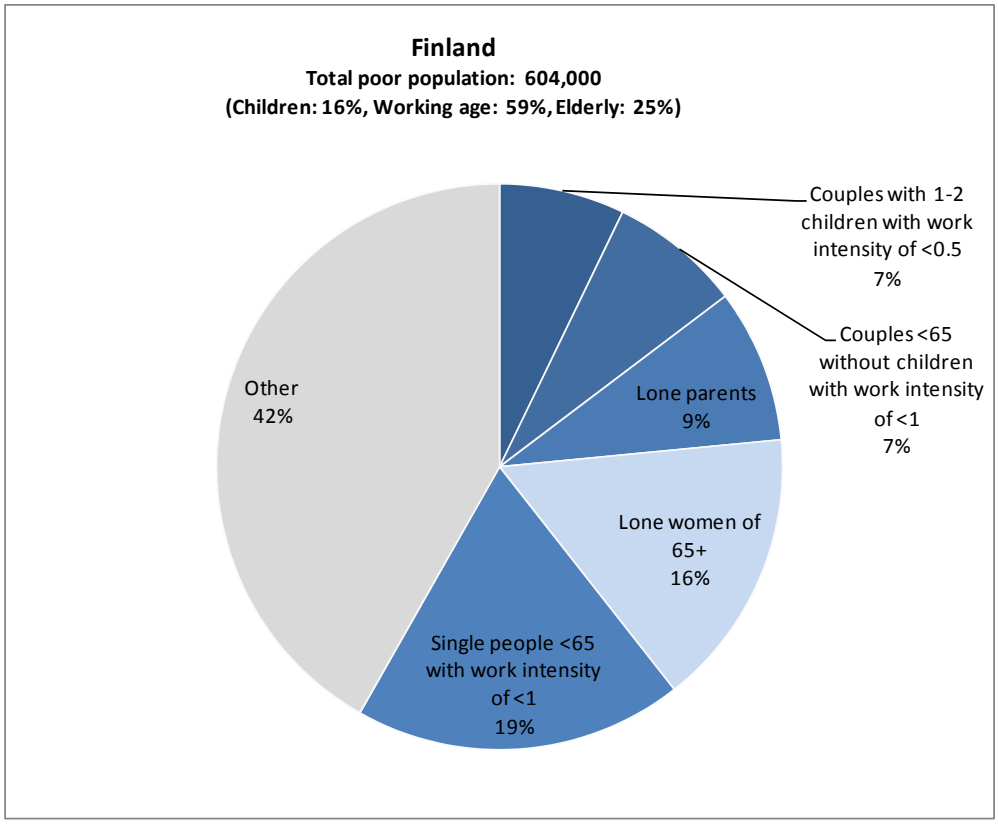

Austria
Total poor population: 1,001,000
(Children: 21%, Working age: 61%, Elderly: 19%)
Single people <65 with work intensity of <1 8%
Couples <65 without children with work intensity of <1 9%
Couples with 3+ children with work intensity of 0.5<=WI<1 9%
Lone women of 65+ 9%
Couples with 1-2 children with work intensity of 0.5<=WI<1 15%
Other 50%

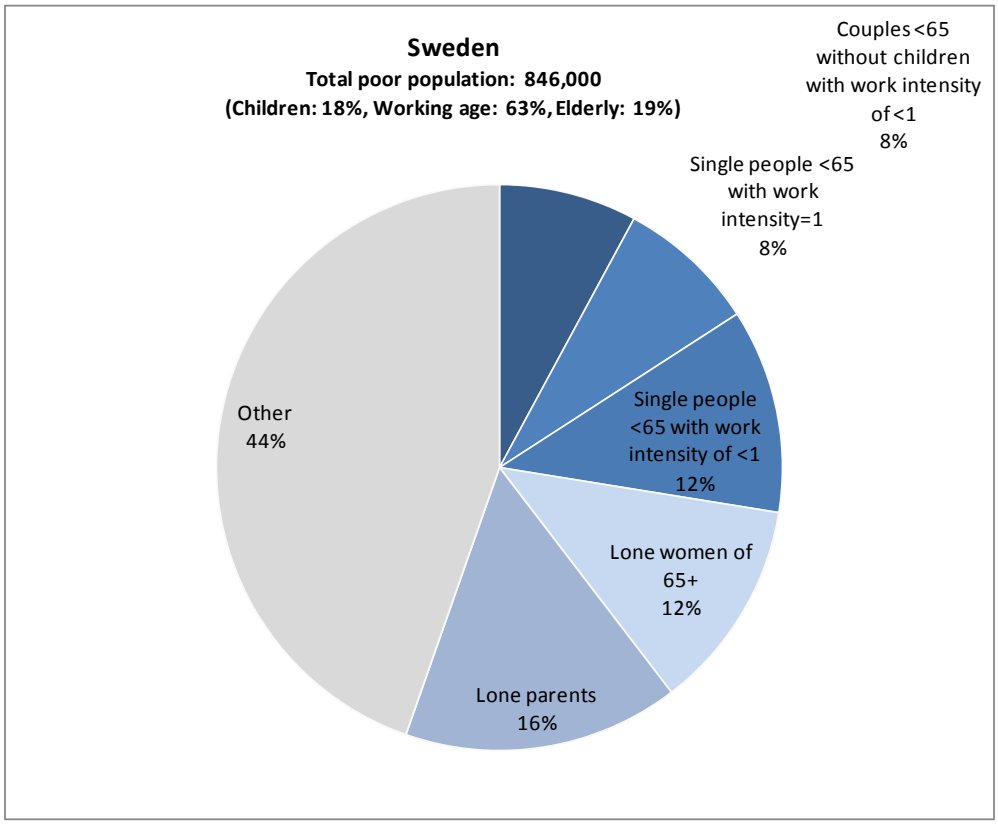

Poland
Total poor population: 7,595,000
(Children: 25%, Working age: 70%, Elderly: 5%)
Couples with 1-2 children with work intensity of 1 5%
Couples with 3+ children with work intensity of <0.5 5%
Couples with 3+ children with work intensity of 0.5<=WI<1 7%
Couples with 1-2 children with work intensity of <0.5 9%
Couples with 1-2 children with work intensity of 0.5<=WI<1 11%
Other 63%

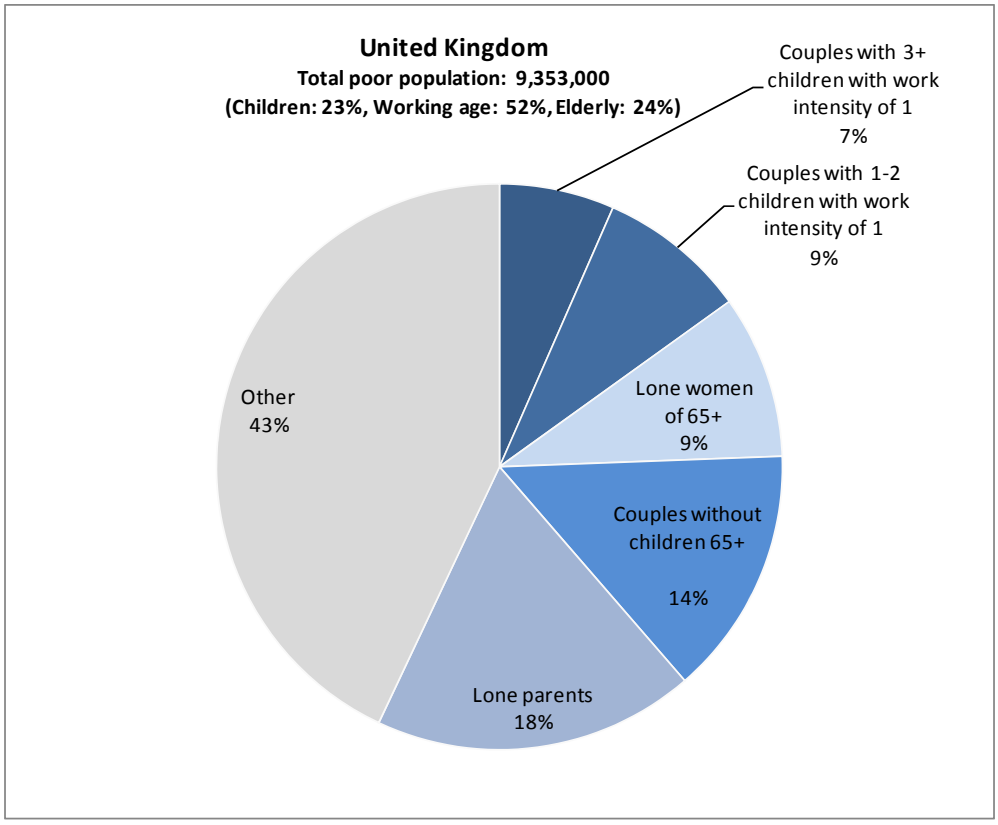

Portugal
Total poor population: 2,135,000
(Children: 19%, Working age: 57%, Elderly: 24%)
Couples <65 without children with work intensity of <1 5%
Lone women of 65+ 6%
Couples with 1-2 children with work intensity of 1 12%
Couples without children 65+ 14%
Couples with 1-2 children with work intensity of 0.5<=WI<1 18%
Other 45%


Slovenia
Total poor population: 238,000
(Children: 15%, Working age: 60%, Elderly: 25%)
Couples with 1-2 children with work intensity of <0.5 8%
Couples without children 65+ 8%
Single people <65 with work intensity of <1 9%
Couples with 1-2 children with work intensity of 0.5<=WI<1 14%
Lone women of 65+ 15%
Other 46%


Slovakia
Total poor population: 718,000
(Children: 22%, Working age: 72%, Elderly: 7%)
Couples with 3+ children with work intensity of 1 6%
Couples with 1-2 children with work intensity of <0.5 7%
Couples with 3+ children with work intensity of 0.5<=WI<1 8%
Couples with 1-2 children with work intensity of 0.5<=WI<1 12%
Couples with 1-2 children with work intensity of 1 14%
Other 53%


Finland
Total poor population: 604,000
(Children: 16%, Working age: 59%, Elderly: 25%)
Couples with 1-2 children with work intensity of <0.5 7%
Couples <65 without children with work intensity of <1 7%
Lone parents 9%
Lone women of 65+ 16%
Single people <65 with work intensity of <1 19%
Other 42%


Sweden
Total poor population: 846,000
(Children: 18%, Working age: 63%, Elderly: 19%)
Couples <65 without children with work intensity of <1 8%
Single people <65 with work intensity=1 8%
Single people <65 with work intensity of <1 12%
Lone women of 65+ 12%
Lone parents 16%
Other 44%


United Kingdom
Total poor population: 9,353,000
(Children: 23%, Working age: 52%, Elderly: 24%)
Couples with 3+ children with work intensity of 1 7%
Couples with 1-2 children with work intensity of 1 9%
Lone women of 65+ 9%
Couples without children 65+ 14%
Lone parents 18%
Other 43%

CHAPTER 3 — THE RISK OF POVERTY AT EU LEVEL

INTRODUCTION

The risk of poverty of people living in EU Member States is conventionally measured in terms of their income as compared with the average in the country in which they live. Specifically, the measure adopted, which is the indicator used to monitor the situation in different Member States and developments in this over time, is the proportion of the population with disposable household income, equalised for differences in the size and composition of households, of less than 60% of the national median[18]. This measure is a relative one which focuses on the people with the lowest levels of income in each Member State who are most likely to be deprived of access to the resources which other people in the community take for granted. It is less meaningful, however, as an indicator of those who are most likely to be deprived at the EU level, since it takes no account of differences in the level of median income as between Member States. These differences can be substantial. In particular, in 2004, median equivalised household income in Luxembourg, the country with the highest level in the EU, was 6 times higher than in Lithuania, the country with the lowest level, even when income is measured in purchasing power parity terms to allow for differences in price levels.

Although, therefore, those with income below 60% of the national median in Lithuania may be most at risk of poverty in this country, it is questionable whether those with income just above this level are at less risk of poverty than those in Luxembourg with income below 60% of the median in that country. The same applies to those in Latvia, Poland or others of the new Member States, where income levels are much lower than in most of the EU15 countries, or even to those in Portugal or Greece, where income levels are also relatively low, as compared with people in Austria, Denmark or other high-income countries.

Moreover, while Member States have prime responsibility for tackling problems of low income and social exclusion, there is also an EU-level interest in these issues in that one of the main objectives is to raise the standard of living and quality of life for all its citizens and to promote economic and social cohesion throughout the Union. Progress towards achieving this is

[18] Income of households, net of the taxes and social contributions paid by household members and gross of social transfers received, is equivalised according to the modified OECD scale, which attributes a weight of 1 to the first adult in the household, 0.5 to each other adult and 0.3 to children under 16. Income so equivalised is then assumed to be equally distributed between household members including children.

primarily assessed at present by reference to GDP per head, measured in purchasing power parity terms. This, however, is an indicator of the economic strength of the countries, or regions, concerned and of the output produced, rather than of income levels as such, which can differ significantly from this because of transfers. The income received by households can differ even more since this depends on the share taken by companies, while this is yet more the case as regards the distribution of income between households, which affects what each individual household receives.

GDP per head, therefore, gives only an approximate indication of how income levels vary between Member States. Accordingly, there is a strong case for examining household incomes across the EU directly in order to monitor differences in living standards and to assess how social cohesion is changing. This need has been recognised ever since the present indicators used to monitor social exclusion in EU Member States were first developed in 2001[19]. The concern here is to examine the relative number of people with disposable income below a particular level both in relation to median income across the EU as a whole – i.e. the income received by someone at the mid-point of the income distribution at EU level – which amounted to around EUR 1,100 a month in 2004, and in absolute terms. Income throughout is measured, as invariably is the case in respect of GDP per head, in purchasing power parity terms to allow for price level differences and ensure comparability across countries.

Such a measure is not new but has been suggested on a number of occasions in the recent past[20]. The EU-SILC makes its calculation more possible, and more meaningful, than before by providing data on household income for all Member States – with the exception at present of Bulgaria and Romania – on a reasonably comparable basis. It, accordingly, makes it more possible to identify those whose income falls below a certain level and in which countries they live, as well as their characteristics.

Measuring disposable income across the EU on a comparable basis, however, is not without problems. Although the application of purchasing power parity (PPP) estimates takes explicit account of price level differences and allows household income to be compared in different countries in terms of what income is capable of purchasing, this can be done only approximately. In practice, it is difficult to identify an equivalent package of goods and services in different parts of the EU on which prices can be compared, since consumption patterns vary

[19] See the discussion and references in Atkinson, A.B., Cantillon, B., Marlier, E. and Nolan, B. *Taking forward the EU Social Inclusion Process,* An independent Report commissioned by the Luxembourg Presidency of the Council of the European Union, 2005.

[20] Atkinson *et al, op. cit.*

between countries. At the same time, it is even more difficult to compare price levels between regions than between countries and despite the palpable differences which exist at this level – between the Sicilian countryside and the centre of Milan, for example – the (usually implicit) assumption is invariably made that a common PPS measure can be applied across a country. Indeed, such an assumption is, in practice, forced by the lack of data on regional prices in the EU. Moreover, the income being measured does not include income in kind, such as food grown for a household's own consumption, which is important in a number of places, especially in the more rural parts of some of the new Member States.

The limitations of the PPS measure which arise from these consideration, as well as the range of other factors which make it difficult to compare income levels across the EU (such as the varying incidence of both income and benefits in kind), need to be kept in mind when interpreting the results of the analysis presented below. It ought also to be kept in mind, however, that the same limitations apply to comparisons of GDP per head between different parts of the EU[21].

THE POPULATION WITH INCOME BELOW VARIOUS POVERTY THRESHOLDS IN THE EU

As indicated above, estimates of the relative number of people with income below a certain level in the EU can be made from the data collected by the EU-SILC in 2005 for disposable household income in 2004, equivalised to adjust for differences in the scale and composition of households. These data, however, do not include Bulgaria and Romania. Moreover, no detailed data are available for Malta. Accordingly, the estimates presented below relate to 24 Member States.

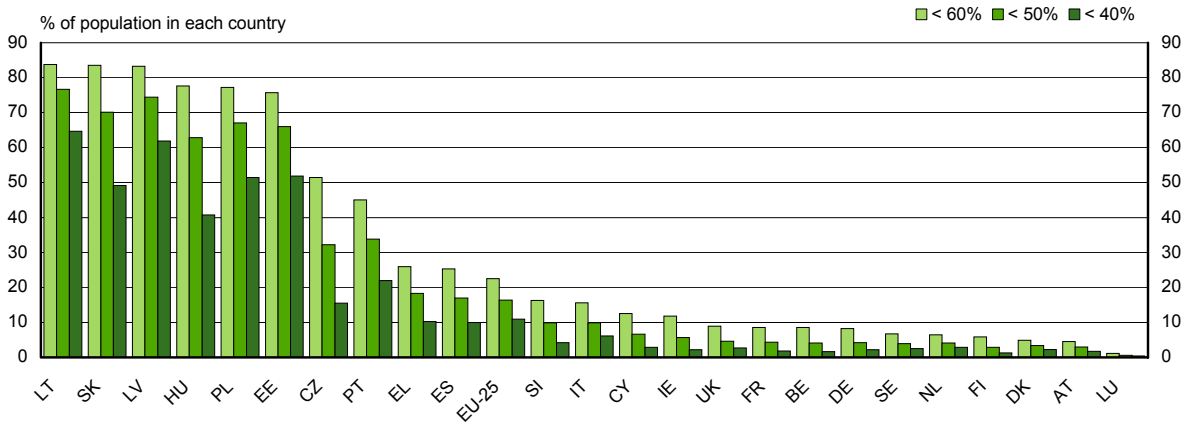
Since it is not clear what the most appropriate income threshold should be when identifying those at risk of poverty, the results of applying a range of possible thresholds is examined below in order to see how the relative number of people with income below each of these levels and their distribution across countries change as the threshold is varied.

[21] The difficulties of comparing GDP per head across regions are arguably even more acute insofar as there is a mismatch of varying degrees between the GDP being measured and the 'heads', or population, responsible for producing it. In other words, because of commuting the population resident in a particular country or region differs from the population working in that country or region. For example, the high level of GDP per head in Luxembourg is partly a result of the number of people working in the country being substantially larger than the number of people living there.

INCOME BELOW 60%, 50% AND 40% OF EU MEDIAN

The starting-point is to examine those with income below 60% of the EU median income, which is the threshold taken for measuring the risk of poverty at national level. At the EU level, this threshold amounts to some EUR 670 a month, or more precisely to the purchasing power equivalent of this in the different countries[22]. It is estimated that in 2004 there were some 22.5% of the population, or some 100 million people, in the EU (excluding the three countries mentioned above) with income below this level in the EU[23] (Figure 1). This compares with a figure of 16% with income below 60% of the median level in the country in which they live, which is the weighted average of the figures for the risk of poverty at national level across the EU (i.e. the indicator conventionally used to measure the risk across the EU as a whole).

Fig 1 Proportion of people with income below 60%, 50% and 40% of the EU median level of disposable income (in PPS), 2004



Source: EU-SILC 2005

The proportion of people in each Member State with income below this threshold is obviously much larger in the countries with relatively low levels of income per head than in those with higher levels, irrespective of the degree of income dispersion in individual countries. In Latvia, Lithuania and Slovakia 83-84% of the population in each case have an income below 60% of the EU median (i.e. only 16-17% of people have an income above this), in Estonia, Hungary and Poland, 76-78% and in the Czech Republic just over 51%. On the other hand, in Slovenia, the

[22] Once differences in prices levels are taken into account, EUR 670 is equivalent, to take the extremes, to EUR 507 in Denmark and EUR 1390 in Poland, while in Greece, it is equivalent to EUR 818, with the levels in the new Member States being in between the Polish and Greek levels, though in most cases closer to the former than the latter, and the level in Portugal being similar to that in Greece.

[23] Income in the EU is the sum of equivalised household disposable income, measured in PPP terms in the 24 Member States covered.

figure is only just over 16% and in Cyprus, 12-13%, which in both cases is below the EU average. It is also well below the proportion in Portugal (45%) which in turn is well above the proportion in Greece and Spain (25-26%).

These three countries apart, the only other Member States in which the relative number of people with income below 60% of the EU median is above 10% are Italy (just under 16% and only slightly below the figure in Slovenia) and Ireland (just under 12%)[24]. By contrast, in Denmark and Austria, the figure is under 5% and in Luxembourg only around 1%.

A reduction in the poverty threshold from 60% to 50% of EU median income, of course, reduces the number of people below the threshold but to varying extents in different countries because of differences between them in the distribution of income. In the EU as a whole, the proportion with income below this level is reduced to just over 16% of the total population, or to some 73.2 million. In Latvia and Lithuania, the proportion is reduced but it is still around 75% of the population. In Slovakia it remains at 70%, slightly above the figures in Estonia and Poland at around 66-67%. These, in turn, are now higher than in Hungary (63%), reflecting the greater concentration of incomes in the latter at just below 60% of the EU median (and accordingly the more equal distribution of income). In the Czech Republic, the proportion is reduced to just under a third, slightly below that in Portugal, and in Slovenia, to the same level as in Italy (10%).

In the EU15, apart from in Portugal and Italy, the proportion of the population with income below the threshold in Greece and Spain is still as high as 17-18%, but elsewhere, it is less than 5% except in Ireland, where it is just above 5%.

A further reduction of the threshold to 40% of the EU median (or to just under EUR 450 a month) lowers the share of the population with income below this level to 11%, or to around 49 million. The proportion in Latvia and Lithuania is still well over 60%. In Estonia and Poland, it is reduced by more but remains at 51-52%, which is now above the proportion in Slovakia, and some 10 percentage points more than in Hungary. In the Czech Republic, the proportion is reduced to well below that in Portugal (to just over 15% as compared with 22%) and in Slovenia to only 4%, some 2 percentage points below that in Italy. In the EU-15 Member States except in the four southern countries less than 3% of people have income below 40% of the EU median.

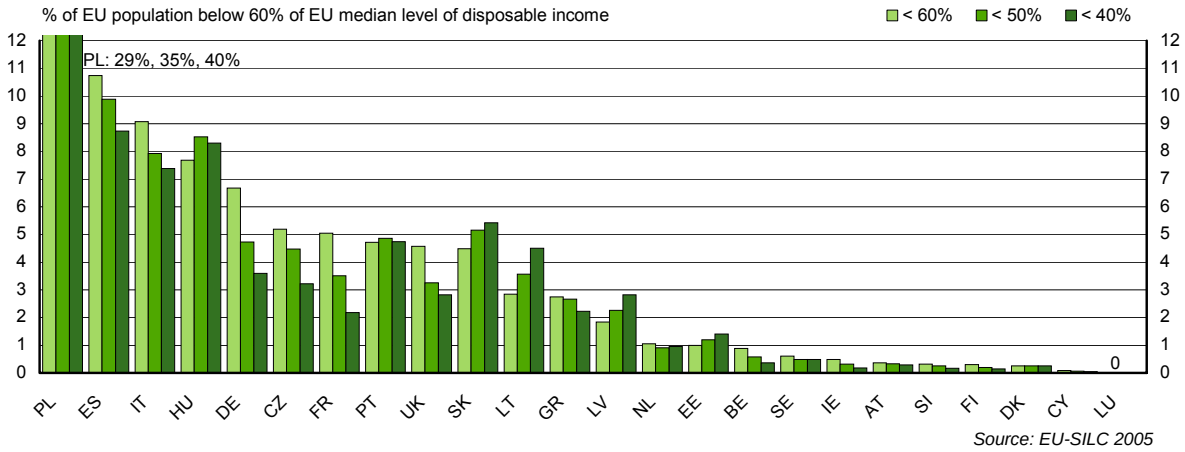
Despite the relatively small proportions of people with income below these thresholds in most of the EU15 countries, it is still the case that, because of their population size, a large share of

[24] Although GDP per head in Ireland is the second highest in the EU behind Luxembourg, average household income is much lower than this because of the substantial scale of net income transferred abroad (taking the form to a large extent, in practice, of retained profits of foreign-owned enterprises).

the total in the EU with incomes of these levels live in these countries. Almost half (just under 48%) of the people with income 60% of the EU median, therefore, live in the EU15, some 11% of them in Spain, another 9% in Italy and just under 7% in Germany. At the same time, 29% live in Poland (Figure 2).

With the poverty threshold at 50% of EU median income, some 60% of the people with income below this level live in the new Member States, around 35% in Poland alone. Nevertheless, 40% still live in the EU-15 countries, 18% in Spain and Italy taken together. With the poverty threshold reduced to 40% of the EU median, the proportion with income below this level living in the new Member States is increased to around 65%, with 40% in Poland. Nevertheless, some 16% live in Spain and Italy.

Fig 2 Division of people with income below 60%, 50% and 40% of the EU median level of disposable income (in PPS), 2004



INCOME BELOW EUR 10 PER DAY

The thresholds used to measure the relative number of people with low incomes can also be expressed in absolute rather than relative terms, which is the approach generally adopted by the UN in assessing income levels in developing countries. An income of 40% of the EU median in 2004 represents an average of just under EUR 15 a day (measured in purchasing power parity terms, or in terms of what this amount can purchase on average in different countries rather than at actual Euros). A significant number of people across the EU, and in the new Member States in particular, however, have equivalised disposable incomes even lower than this.

Just over 5% of the total population in the EU had a daily income in 2004 of less than EUR 10 a day, if measured in purchasing power parity, or standard (PPS), terms, which means some 23.5 million people overall. In Latvia and Lithuania, this applied to 37-40% of the population (over 2 million people in total) and in Estonia and Poland, to over a quarter (26-27%). The proportion

was also significant in Hungary (15%) and Slovakia (18%). In Portugal, it applied to 9% of the population, which represents almost 960,000 people – twice the total number and proportion in the Czech Republic (Table 1).

In all the other EU-15 countries, the proportion with this level of income was less than 5%. It is still the case, however, that almost a third of people with this level of income – over 7.5 million altogether – lived in the EU15 countries and around 15% of the total (3.5 million) in Spain and Italy. Nevertheless, the main concentration is, of course, in the new Member States, where almost 16 million people are estimated to have an income this low, almost 10.5 million of these living in Poland.

Table 1 Division of people with income below poverty line at EU level, 2004

% of EU population below poverty line

	Poverty line relative to EU median income*:				
	<60%	<50%	<40%	€10 a day	€5 a day
BE	0.9	0.6	0.4	0.3	0.4
CZ	4.0	5.2	4.5	3.2	1.8
DK	0.7	0.3	0.3	0.3	0.3
DE	13.0	6.7	4.7	3.6	3.6
EE	0.6	1.0	1.2	1.4	1.5
IE	0.7	0.5	0.3	0.2	0.1
GR	2.9	2.8	2.7	2.2	2.0
ES	11.1	10.7	9.9	8.7	7.3
FR	10.8	5.1	3.5	2.2	1.8
IT	11.7	9.1	7.9	7.4	7.6
CY	0.1	0.1	0.1	0.0	0.0
LV	1.0	1.8	2.3	2.8	3.5
LT	1.5	2.8	3.6	4.5	5.7
LU	0.0	0.0	0.0	0.0	0.0
HU	4.3	7.7	8.5	8.3	6.4
NL	2.4	1.1	0.9	1.0	1.2
AT	1.0	0.4	0.3	0.3	0.4
PL	15.9	29.0	34.6	39.8	44.2
PT	3.6	4.7	4.9	4.7	4.1
SI	0.5	0.3	0.3	0.2	0.1
SK	2.4	4.5	5.2	5.4	4.2
FI	0.9	0.3	0.2	0.1	0.1
SE	1.6	0.6	0.5	0.5	0.6
UK	7.6	4.6	3.3	2.8	3.2
EU-25	100.0	100.0	100.0	100.0	100.0

** Household income equivalised for differences in household size and composition and shared equally between members, expressed in PPS terms in each country.*

These figures need to be interpreted with caution. In particular, the limitations of the EU-SILC data on income need to be recognised. They inevitably involve a degree of uncertainty, which is especially large for incomes at the two extremes of the distribution. At the bottom end of the scale, there are a number of people with negative incomes, which are the self-employed who reported trading losses in 2004, since the disposable income of the self-employed is measured

by the net earnings recorded in their businesses. In these cases, income so defined is unlikely to reflect their actual purchasing power and their potential command over goods and services, not least because the people concerned may well pay themselves out of business expenses.

Moreover, since those with the lowest incomes may well include people with accumulated wealth, which is equally a source of purchasing power, the above figures may give a misleading impression of the number who are unable to afford a reasonable level of consumption. In addition, many of those with low income levels as measured in cash terms are likely to live in rural areas and produce food for their own consumption which again is not taken into account in the measure of income. For all these reasons, the relative number of people across the EU with income of only EUR 10 a day may overstate the proportion of the population in the EU at risk of poverty.

The number of people who were recorded as having negative income amounts to almost 200000 in Germany, Spain and the UK and more than 300000 in Italy. Although the people concerned amount to only around 0.5% or less of the total population in each country – and would accordingly reduce the proportion with income of less than EUR 10 a day by this amount – they represent a significant proportion of those with very low incomes in many EU15 countries in particular. In Denmark, they account for over half of those with income of below EUR 10 a day and in the Netherlands and the UK, over a quarter (Table 2). It is still the case, however, that 1.2-1.3 million people in each of Spain and Italy had income of less than EUR 10 a day in 2004.

Table 2 People with income below or equal to zero, 2004

	Number	Poverty line relative to EU median income*			<EUR10 a day	<EUR5 a day
		<60%	<50%	<40%		
	(' 000)	(% of people in each category)				
BE	6.9	0.8	1.6	4.0	9.8	24.8
CZ	-	-	-	-	-	-
DK	33.8	12.9	18.6	27.4	54.2	71.2
DE	191.2	2.8	5.5	10.9	22.7	46.3
EE	7.9	0.8	0.9	1.1	2.2	11.4
IE	4.9	1.0	2.1	5.5	17.4	56.5
GR	72.6	2.6	3.7	6.7	15.5	43.0
ES	180.1	1.7	2.5	4.2	10.5	25.9
FR	27.0	0.5	1.0	2.5	6.3	17.7
IT	304.9	3.3	5.3	8.5	17.1	35.9
CY	0.4	0.4	0.7	1.6	7.1	29.6
LV	16.8	0.9	1.0	1.2	2.0	8.7
LT	17.2	0.6	0.7	0.8	1.3	4.9
LU	0.1	2.8	5.3	7.0	11.7	34.6
HU	10.5	0.1	0.2	0.3	0.7	8.7
NL	89.7	8.5	13.4	19.3	31.2	50.7
AT	1.9	0.5	0.8	1.3	2.3	8.4
PL	110.0	0.4	0.4	0.6	1.1	4.2
PT	38.9	0.8	1.1	1.7	4.1	16.9
SI	0.8	0.3	0.4	1.0	2.7	12.1
SK	10.0	0.2	0.3	0.4	1.0	6.1
FI	1.4	0.5	1.0	2.1	5.8	22.2
SE	32.1	5.2	8.9	13.5	22.6	39.4
UK	193.6	4.2	8.1	14.0	26.1	47.2
EU25	1,352.8	1.4	1.8	2.8	5.8	19.7

** Household income equivalised for differences in household size and composition and shared equally between members, expressed in PPS terms in each country.*

Income below EUR 5 a day

A significant number of people in the EU have an income of even less than EUR 10 a day. According to the EU-SILC, around 1.5% of the EU population had a disposable income of just EUR 5 a day (again measured in PPS terms) in 2004. Although this is a small percentage, it still represents almost 7 million people. In Latvia and Lithuania, moreover, the proportion amounted to around 9-10% of the population, while in Poland, some 7% of the population had an income this low, or around 2.6 million people.

Although the majority of the people with an income of EUR 5 a day live in the new Member States – 39% in Poland – almost half live in the EU15 countries. While many of these are self-employed with negative trading income – some 20% with income of this level have negative or zero income – even if these are excluded, there are still just over 2 million people with this level of income in EU15 Member States and over 1 million in Spain and Italy taken together.

CONCLUDING REMARKS

The estimates presented above of the relative number of people across the EU with disposable income below a certain level, as defined either in absolute terms or in relation to median income at EU level, both adjusted for differences in prices levels, provide an alternative perspective on the risk of poverty in the Union to that based on national income levels as conventionally used. Moreover, it is one which is more suitable for assessing differences in living standards between people in Member States and for monitoring the process of catching up of the poorer the parts of the EU in income terms as a compliment to monitoring disparities in economic performance through GDP per head.

The measure highlights the fact that, although the problem of low incomes is most serious in many of the new Member States, there are nevertheless significant numbers of people in the richer parts of the Union whose income is well below the median level in the EU and who seem to have relatively little to live on. Further analysis is required to identify the people concerned in the different parts of the EU and their circumstances in order to assess both how far the income data in the EU-SILC accurately reflects their living conditions and the kinds of policy best suited to alleviating their situation.

There is a parallel need in the EU15 countries, in particular, to examine in more detail the position of the self-employed specifically in order both to investigate their living standards and to see how the problem of negative or zero incomes which arises from the way their income is at present measured can best be overcome.

CHAPTER 4 — THE RISK OF POVERTY AT REGIONAL LEVEL

INTRODUCTION

The extent to which the risk of poverty varies across regions within countries is of relevance for policy. The more that people with income below the poverty line are concentrated in particular regions, the more should policy be similarly concentrated and, in addition, take account of the regional aspects of the problem, such as a low rate of employment in the region in question. Up until now, however, there has been a lack of data on income per head at regional level to examine this issue. Although data on GDP per head, and more recently, estimates of household income, suggest that there are substantial differences in regional income levels across countries, it cannot necessarily be assumed from this that there are similarly large differences between regions in the proportion of people with income below the poverty line, defined at national level.

THE DATA AVAILABLE

Data from the EU-SILC for the first time enable the dispersion of income per head to be examined at regional level in a number of EU Member States. The coverage, however, is far from complete largely because the sample selected for survey in a number of countries has not been determined in order to be representative of the population in different regions. This is the case in the UK, Netherlands and Sweden, in particular, while in Italy, not all regions are covered. Moreover, in most of the countries which are covered – i.e. those in which the sample surveyed is representative at regional level – the regional breakdown is relatively broad as a consequence of the relatively small size of the sample from which data are collected by the EU-SILC. Nevertheless, these data provide a valuable insight into regional variations in the Member States concerned.

RESULTS

The data indicate that there are wide variations in the proportion of the population at risk of poverty as between regions, measured in the conventional way as those with equivalised income below 60% of the national median. They also indicate, at the same time, that these variations are not always in line with regional variations in GDP per head, which is the most commonly used measure to indicate regional differences in income levels (Table 1).

There are a number of possible reasons for this. In particular, the degree of dispersion of disposable income between people might vary significantly across regions, so that, for example, the regions with the highest income levels might also be those in which the distribution of income is most unequal, especially at the bottom end of scale. In addition, since GDP per head is not a measure of income as such, and even less a measure of household income, it is not necessarily the case that regions with the highest levels of GDP per head also have the highest levels of household disposable income per head. The relationship between GDP and household income is an issue for future investigation.

In Belgium, therefore, there is a reasonably close association between the risk of poverty as measured and GDP per head, at least so far as Wallonia and Flanders are concerned. In Wallonia, therefore, where GDP per head was only around 73% of the level in Flanders in 2004, almost 18% of the population had income below 60% of the national median in the same year as compared with just under 11% in Flanders. In the Brussels regions, however, where GDP per head is almost twice the level in Flanders – entirely due to the substantial number of people who commute into the region from outside to work and who therefore contribute to output without being residents (and recorded among the 'heads' over which GDP is measured) – around 30% of people have income below the poverty line, much more than in Wallonia and almost three times higher than in Flanders[25].

In Brussels, therefore, the high level of GDP because of commuting considerably overstates the level of income and, at the same time, it is accompanied by a relatively wide dispersion of income with a considerable number of people with income below 60% of the national median. Moreover, despite the much lower risk of poverty rate in Flanders than in Wallonia, there are still more people with equivalised income below 60% of the national median in the former region than the latter because of the larger number of people living there.

In the Czech Republic, there is a relatively close relationship between the risk of poverty and GDP per head. A relatively small proportion of the population (under 5%) in Prague, where GDP per head is well above that in the rest of the country, have income below the poverty line, while in Severozapad and Moravzkoslezsko, which have among the lowest levels of GDP per head, some 17-19% of people have poverty-levels of income. Nevertheless, the relationship is not entirely systematic as the region with the lowest level of GDP per head, Stredni Morava, has a smaller proportion of people with income below the poverty line than either of these two regions, partly reflecting its higher level of household income per head than in the two regions concerned.

[25] The level of household income per head in Brussels is estimated by Eurostat to be lower than that in Flanders but higher than that in Wallonia.

In Germany, data are available only for very broadly defined regions, but these still indicate that the risk of poverty is higher in the eastern Länder than in the rest of the country. In these regions taken together, therefore, just over 17% of the population have equivalised income of less than 60% of the median as compared, for example, with just under 12% In Baden-Württemberg or 11% in Bavaria, where average GDP per head is some 60% higher. The result is that 27% of the total German population with income below the poverty line live in the eastern part of the country and 73% in the western part.

In Greece, in contrast to Belgium, the risk of poverty in the capital city region (Attiki) is much lower than in other parts of the country, with just over 11% of the population with income below the poverty line as against well over 20% in other regions. Because of its size, however, some 22% of all those with poverty-levels of income live in the Athens region.

Table 1 Risk of poverty by region and GDP per head, 2004

	% population with income <60% national median	% total in MS with income <60% median	GDP per head in PPS as % EU25 average
Belgium	**14.9**		**119.4**
Vlaams Gewest	10.8	42.0	118.2
Région Wallonne	17.6	38.5	86.3
Bruxelles-Capitale	29.8	19.5	238.2
Czech Republic	**10.4**		**72.1**
Praha	4.2	4.6	150.7
Jihozapad	5.7	6.3	66.8
Jihovychod	8.2	12.7	64.6
Stredni Cechy	8.7	9.5	67.0
Severovychod	11.2	15.7	61.1
Stredni Morava	12.8	14.7	57.4
Severozapad	16.1	17.1	58.2
Moravskoslezsko	16.3	19.4	58.6
Germany	**13.1**		**111.1**
Bayern	10.9	12.6	132.3
Baden-Württemberg	11.7	11.6	125.1
Nordrhein-Westfalen	11.9	20.1	110.3
Hessen+Rheinland-Pfalz+Saarland	12.6	13.2	117.7
Bremen+Hamburg+Niedersachsen +Schleswig-Holstein	12.7	15.6	111.6
Eastern Länder, including Berlin	17.3	27.0	82.7
Greece	**19.7**		**81.4**
Attiki	11.4	22.3	108.1
Nisia Aigaiou, Kriti	22.8	11.1	79.3
Voreia Elláda	23.7	38.7	62.7
Kentriki Elláda	27.5	27.9	66.3
Spain	**19.7**		**96.6**
Comunidad de Madrid	12.0	8.2	126.8
Noreste	12.3	6.0	114.4
Este	15.7	22.8	105.7
Noroeste	18.0	9.2	81.2
Sur	27.3	29.3	75.5
Canarias	28.4	6.4	89.0
Centro (ES)	28.7	18.2	80.5
France	**13.0**		**107.7**
Ouest	10.2	11.1	95.3
Île de France	10.3	14.7	167.4
Centre-Est	11.6	10.3	105.0
Bassin Parisien	11.7	15.5	94.3
Est	12.7	9.3	94.9
Sud-Ouest	15.1	12.3	96.1
Nord - Pas-de-Calais	18.6	9.7	85.3
Méditerranée	19.0	17.2	94.6
Italy	**19.0**		**103.0**
Isole	5.9	1.2	67.9
Nord-Est	9.3	15.7	126.6
Centro (IT)	11.1	83.1	116.5
Hungary	**13.4**		**61.3**
Közép-Magyarország	7.5	15.6	97.4
Dunántúl	11.0	25.2	55.7
Alföld és Észak	19.2	59.2	41.1
Austria	**12.3**		**123.4**
Westösterreich	11.0	32.4	123.1
Ostösterreich	13.0	44.7	132.7
Südösterreich	13.1	22.9	105.6
Poland	**20.6**		**48.7**
Południowy	16.4	16.6	49.3
Centralny	19.1	18.8	64.0
Południowo-zachodni	20.2	10.1	47.5
Północno-zachodni	20.2	15.6	48.9
Północny	23.5	17.1	43.6
Wschodni	25.2	21.7	35.0
Finland	**11.7**		**110.8**
Etelä-Suomi+Åland	10.0	42.3	128.1
Länsi-Suomi	12.2	26.4	97.8
Pohjois-Suomi	12.3	13.0	97.5
Itä-Suomi	16.7	18.3	81.8

The risk of poverty is also relatively low in Madrid as compared with the rest of Spain, affecting 12% of the population, while it is relatively high in both the central and southern regions and the Canaries, in each of which some 27-29% of people have income below the poverty line. These regions also have relatively low levels of GDP per head, especially the southern region in which it averages around 40% less than in Madrid. Some 55% of those with poverty-levels of income live in these three regions as compared with only around 14% who live in Madrid and the North-Eastern region, which together account for almost a quarter of Spanish population.

In France, the variation in the risk of poverty is less, but the proportion of people with income below the poverty line still amounts to 19% in the Mediterranean region in the south and just under 19% in the Nord Pas de Calais in the north, almost twice the proportion in the Ile de France (just over 10%). Although there is a broad relationship between the risk of poverty and GDP per head, it is not particularly close. The Paris Basin (Bassin Parisien), for example, has much the same level of GDP per head as the Mediterranean region, but a risk of poverty rate which is substantially lower (12%), which is only partly attributable to its slightly higher level of household income per head (around 2% higher than the latter region).

In Italy, data are available for only three broad regions which account for only around half the population in the country. They include only the island regions of Sicily and Sardinia of the southern part which has a much lower GDP per head than the rest of the country. Unexpectedly, the risk of poverty is estimated to be much lower in these two island regions, with only 6% of the population having equivalised income below 60% of the national median, significantly less than in the central or North-Eastern region (9% and 11%, respectively) where GDP per head is much higher.

Nevertheless, the risk of poverty in the latter two regions is still well below the average for Italy as a whole (19%), which implies that the relative number of people with income below the poverty line in the regions of the country for which data are not available – i.e. the North West and the South – is substantial. Almost 29% of the population, therefore, are estimated to have poverty levels of income in these two regions taken together. Although such a high proportion might be plausible for the southern regions concerned – even if it would be much higher than for the island regions for which data are available – it seems high for the north-western region which has the highest level of GDP per head of all Italian NUTS 1 regions. These estimates call for further investigation in order to check their reliability, and accuracy.

In Hungary, the risk of poverty in Közép-Magyarország, the region where Budapest is situated, is much less (under 8% of the population having income below the poverty line) than in the rest of the country, especially in Alföld és Észak in the east, in line with the much higher level of GDP per head – over twice as high as in the latter region.

In Austria, there is relatively little difference in the risk of poverty between broad regions, though the eastern region (Ostösterreich) where Vienna is situated – but also Burgenland which was an Objective 1 region in the past – has a higher average GDP per head (and equally a higher level of household income per head) than the other two broad region but also a slightly larger proportion of people with income below the poverty line.

In Poland, there is also relatively little difference in the poverty risk between broad regions, the proportion of the population with income below 60% of the national average ranging, with the exception of one region, from around 19% in Centralny, where Warsaw and Lodz are situated, to 25% in Wschodni in the agricultural east of the country. This is in line with the level of GDP per head, which is almost twice as high in the former region as in the latter. In the Południowy region in the south, however, (which is made up of Silesia and Małopolskie – the region where Krakow is situated), the proportion of people with poverty-levels of income is only just over 16%, significantly lower than in Centralny, despite GDP per head being over 20% less than in the latter (and household income per head being around 12% lower).

Finally, in Finland, the proportion of the population below the poverty line is smallest (10%) in Etelä-Suomi in the south of the country where Helsinki is located and highest (almost 17%) in Itä-Suomi in the east. This is in line with the difference in GDP per head which is some 55% higher in the former than in the latter.

CONCLUDING REMARKS

The estimates of disposable household income at regional level which can be obtained from the EU-SILC data, although far from complete, reveal interesting differences in the risk of poverty between regions within countries. These differences are not altogether in line with differences in GDP per head or in average household income levels and deserve further investigation in order to check both their reliability and the underlying reasons for the differences, in terms of household characteristics and the circumstances of the people concerned, such as, for example, the extent to which they are in employment.

CHAPTER 5 — LOW INCOMES AND MATERIAL DEPRIVATION

INTRODUCTION

The main indicator used to identify people at risk of poverty in EU Member States is having disposable income below 60% of the national median. This, however, is a relative measure which takes no account of absolute income levels and, accordingly, of what an income of 60% of the median is capable of purchasing. It, therefore, leaves open the question of whether or not it is sufficient to enable the people concerned to enjoy a standard of living which would be widely regarded as acceptable not only in the country in which they live but also more generally across the EU.

At the same time, monetary income in itself is not necessarily an adequate measure of the purchasing power that people have access to. There are a number of reasons for this. In particular, income as such takes no account of accumulated savings and wealth – except in the form of the interest they generate – which can equally be used to purchase goods and services. Equally, it does not incorporate any income in kind in the form, for example, of free or subsidised goods and services or food and other goods produced for own consumption.

While both of these factors are reasons why income may understate purchasing power, there are also reasons why it might understate it, such as, for example, the possibility that the income received in a given year may be much higher than that received in previous years and, accordingly, might be accompanied by the need to service significant debts so reducing the amount which can be used for purchases.

A means of overcoming these kinds of shortcoming is to try to identify directly people who suffer deprivation in the sense of not being able to enjoy a standard of living which is generally considered acceptable instead of doing so indirectly through their relative income level. Such an

approach has been advocated by a number of people over the years[26]. It was taken up at the end of 2006 by Anne-Catherine Guio and Isabelle Engsted Maquet[27], who both argued and demonstrated that a measure of those affected by material deprivation could usefully complement the present income-based indicator of the risk of poverty in order to capture the people missed by the latter. This was especially the case in respect of the new Member States, where income levels are very much lower than in most EU15 countries.

While the Guio and Maquet study was carried out on the basis of the EU-SILC data for 2004 which covered only 13 Member States plus Norway, the concern here is to extend the analysis to the 11 Member States not covered in 2004, which include all the new Member States which entered the Union in May, 2004 apart from Estonia – as well as Malta for which the necessary microdata are not available – and to update the analysis to 2005 for the other 13 countries. The focus is on the information collected by the EU-SILC on, first, the ability of people to afford certain consumer items which most households possess; secondly, on the capacity of households to cover essential financial costs and to meet unexpected spending needs and, thirdly, on housing conditions.

In each case, the concern is with the proportion of people who appear to be materially deprived on the basis of their responses to these questions, as well as with the relative number of these who have income above and below the poverty line, as defined as 60% of the national median. The aim, accordingly, is to identify, on the one hand, the extent to which those with levels of income this low also suffer material deprivation, and, therefore, how far the two indicators are correlated in different countries. This might be interpreted either as confirming the relevance for policy of the relative income measure or as demonstrating that the latter measure in itself is sufficient to assess the risk of poverty and deprivation without the need for other indicators. On

[26] See, in particular, Atkinson, Cantillon, Marlier and Nolan (2005), who argue the case for a multi-dimensional indicator of deprivation in *Taking forward the EU social inclusion process*, a report prepared for the the Luxembourg Presidency of the EU in 2005 on as a follow-up to their report to the Belgian Presidency in 2001 (Atkinson, Cantillon, Marlier and Nolan, 2001). This follows extensive literature on the concept and measurement of material deprivation, initiated 26 years earlier by Townsend (Townsend, 1979), who interpreted deprivation In the wide sense of not being able to live a decent life. The concept was subsequently redefined as not having adequate resources to lead a minimum acceptable way of life in the country in the question (Callan *et al.*, 1993; Nolan and Whelan, 1996; Kangas and Ritakallio, 1998; Layte *et al.* 2001; Whelan *et al.* 2002; Perry, 2002) or, alternatively, to lack the necessities which society regards as essential (Bradshaw and Finch, 2003; Nolan and Whelan, 1996). A number of empirical studies of material deprivation have been undertaken in the EU in recent years, largely based on data from the European Community Household Panel. See Boarini and Mira d'Ercole, 2006, for a summary of these.

[27] Guio and Maquet, 2006

the other hand, the aim is equally to identify the extent to which those with income above the poverty line, nevertheless, report being deprived in various ways in different countries, which in consequence gives an indication of the limitations of the relative income-based measure of poverty.

A further aim is to examine how far the different measures of material deprivation themselves are correlated, in the sense of those not being able to afford particular consumer items also reporting an inability to afford other items, financial difficulties in one form or another and poor housing conditions, such as a leaking roof, damp walls, rotten floors or window-frames and so on. In addition, however, it is also to consider the opposite of such accumulation of problems, namely, the relative number of people who report being deprived according to at least one indicator.

Moreover, throughout the analysis, a parallel concern is to examine the relationship between the relative number of people reporting being materially deprived according to the different indicators and the median disposable income per head in the country in question, measured in purchasing power parity terms. This is done by ranking countries in the various graphs and tables in terms of the latter measure.

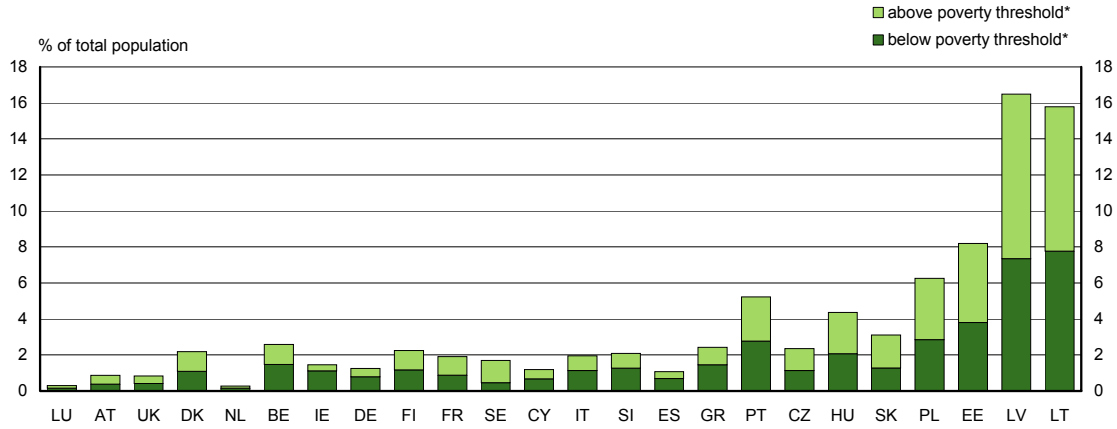
A point to note at the outset is that although the data in the EU-SILC relate to the ability of households to afford certain consumer items, cover financial costs and so on, the analysis here is conducted in terms of individuals in order to take explicit account of variations in household size. In other words, the focus is on the relative number of people living in households which have the difficulty in question.

ABILITY TO AFFORD KEY CONSUMER DURABLES

Very few people in nearly all EU countries report being unable to afford either a telephone, colour TV or washing machine – or, more accurately, live in households which cannot afford at least one of these items (see Figure 1 – where, as noted above, countries are ranked from left to right in terms of median income per head measured in purchasing power parity terms in order to indicate the relationship between the inability to afford any of these items and the level of income, or more accurately, purchasing power). Around half of those living in household reporting such difficulties have income above the poverty line (60% of the national median). In all countries, however, there is a much greater probability of those with income below the poverty line not being able to afford at least one of these items than those with income above.

In overall terms, the proportion of people who are unable to afford at least one of the consumer goods in question is around 2% or less in nearly all EU15 countries, together with Cyprus, Slovenia and the Czech Republic, with no discernible tendency for the figure to vary with average income per head.

Fig.1 Proportion of population not able to afford a telephone, colour TV or washing machine, 2005



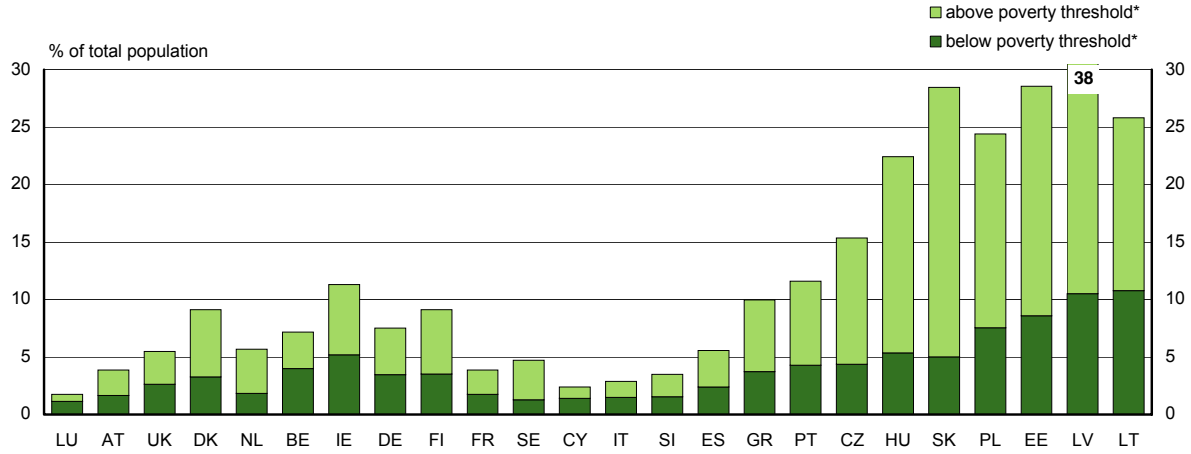
** poverty threshold: 60% of the national median equivalised income. Countries are ordered by average disposable income per (equivalised) head measured in PPP terms.*

Source: EU-SILC 2005

Only in Portugal among the EU15 countries is the figure much above 2% (at just over 5%). In 6 of the new Member States covered, however, the proportion exceeds 3%. In Poland, it is just over 6%, in Estonia, 8% and in Latvia and Lithuania, around 15%. In the new Member States, therefore, there is a tendency for the relative number unable to afford one or more of the items to increase as average income falls.

More people live in households which are unable to afford a car in all parts of the EU, but, nevertheless, in most countries the number is relatively small, especially among the EU15 Member States. In most of these countries, therefore, together with Cyprus and Slovenia, the proportion is less than 10%, the only exceptions being Ireland, Greece and Portugal (Figure 2).

Fig.2 Proportion of population not able to afford a car, 2005



** poverty threshold: 60% of the national median equivalised income. Countries are ordered by average disposable income per (equivalised) head measured in PPP terms.*

Source: EU-SILC 2005

Among the new Member States, however, apart from Cyprus and Slovenia, it exceeds 15% and is more than 20% in all but the Czech Republic. In Poland and Lithuania, the proportion is around 25%, in Slovakia and Estonia, around 28% and in Latvia, as much as 38%. In each case, substantially more people reporting not being able to afford a car have income above the poverty line than below (though again the probability of not being able to afford a car is much greater among those below – around 50% or more in each of the three Baltic States). Again a broad tendency is evident for the proportion able to afford a car to decline with average income levels though the tendency is mainly confined to cases where there are large differences in income.

Whether not being able to afford a car represents a strong form of deprivation or social exclusion is likely to depend in particular on how widespread car ownership is in the community in which a person lives. While almost all households can afford a telephone, colour TV and washing machine, and accordingly, the sense of deprivation is correspondingly high among those that cannot, the proportion of households that own a car is slightly less in the EU15 countries, at around 80%, still high enough for it to represent a significant deprivation. In Hungary, Slovakia, Poland and the three Baltic States, however, less than 60% of people have cars – less than 50% in Latvia – so that the feeling of deprivation is correspondingly much less than in the case of a TV, telephone or washing machine[28].

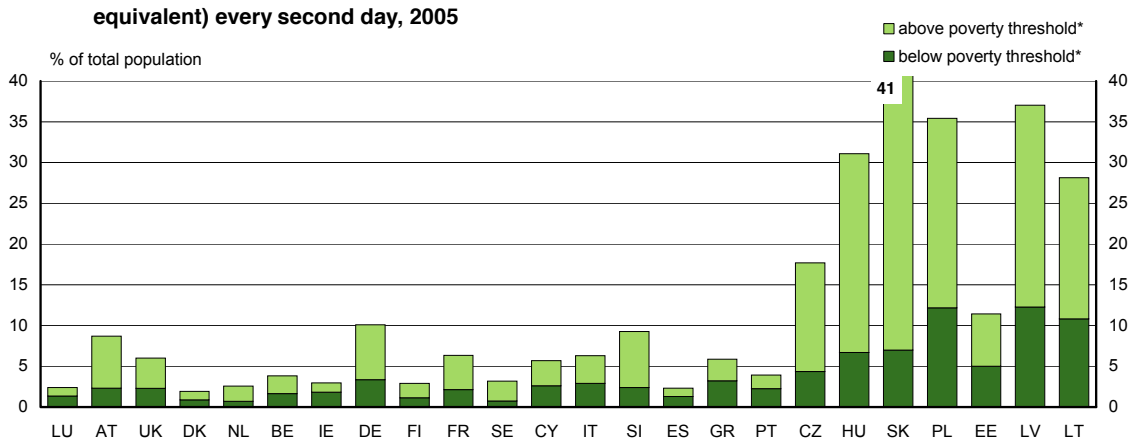
[28] This is even more the case in relation to computers, which are also included among the consumer durables people were asked about in the EU-SILC and which are possessed by less than half the population in 5 of the 6 new Member States with the lowest average income levels and only marginally above half in the other country, Estonia.

ABILITY TO AFFORD A DECENT MEAL EVERY OTHER DAY

A smaller proportion of people in most EU15 countries report not being able to afford a meal with meat or fish or the vegetarian equivalent at least every other day – something which is defined as a basic need by the World Health Organisation. In most of these countries, the proportion is less than 5% and it is much above 6% only in Austria (8%) and Germany (10%), in each case, many more people with income above the poverty line than below reporting such an inability (Figure 3). Given the relative prosperity of these countries, such a finding is difficult to explain and may, perhaps owe more to the interpretation of the question than genuine budget difficulties.

In the new Member States, however, a larger proportion in most cases report not able to afford a meal with meat or fish every other day than report to being able to afford a car. The only exception is Estonia, where the proportion is unexpectedly small given average income per head and again may reflect differences in the way the question was interpreted as compared with other countries. In Hungary, Slovakia, Poland, Latvia and Lithuania, the proportion is around 30% or more (slightly lower in Lithuania) and around 40% in Slovakia. Most of the people concerned, moreover, have income above the poverty line (Figure 3).

Fig.3 Proportion of population not able to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day, 2005



** poverty threshold: 60% of the national median equivalised income. Countries are ordered by average disposable income per (equivalised) head measured in PPP terms.*

Source: EU-SILC 2005

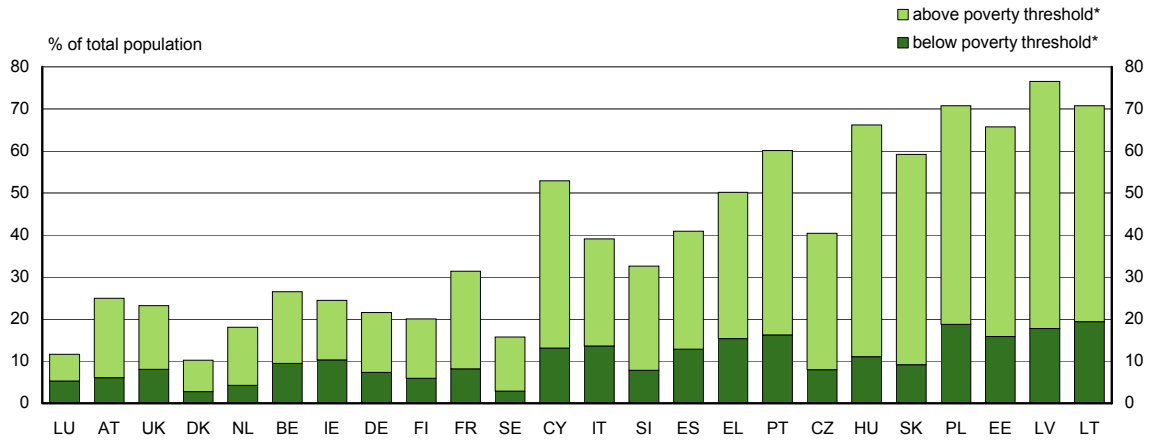
ABILITY TO AFFORD AN ANNUAL HOLIDAY

A significantly larger proportion of people throughout the EU report not being able to afford one week's holiday away from home a year, so much so that in many countries, it is not really a measure of deprivation as such since most of the population are in the same position.

Nevertheless, it seems closely to reflect differences in purchasing power across both countries and households within countries.

In EU15 countries, therefore, the proportion unable to afford an annual holiday is under 20% only in Denmark, Luxembourg, Sweden and the Netherlands (Figure 4). It is just over 30% in France, close to 40% in Italy and Spain, around 50% in Greece and 60% in Portugal. The proportion is, therefore, highest in the countries with the lowest levels of income per head, though at the same time, it does not vary systematically with income per head in the countries with relatively similar levels of income. In all of the countries, those with income above the poverty line make up the majority of those unable to afford a holiday, in most cases, around two-thirds or more.

Fig.4 Proportion of population not able to afford paying for one week annual holiday away from home, 2005



* poverty threshold: 60% of the national median equivalised income.
Countries are ordered by average disposable income per (equivalised) head measured in

Source: EU-SILC 2005

In the new Member States, the proportion unable to afford an annual holiday is over 50% in all countries apart from Slovenia (33%) and the Czech Republic (40%) and is over 65% in Hungary, Poland and all three Baltic States. In all of these countries, those with income above the poverty line make up well over 70% of the people concerned. Nevertheless, in all countries throughout the EU, the probability of not being able to afford an annual holiday is much greater for those with income below the poverty line than above, the proportion concerned reaching around 90% or above in Poland and the three Baltic States.

The tendency for the ability to afford an annual holiday to vary closely with income within countries is shown by comparing the proportions unable to do so across income quintiles (Table 1). In all countries, therefore, the proportion unable to afford a holiday falls systematically as income rises. In the new Member States, it is also evident that even among the highest income earners, a substantial number report not being able to afford a holiday, the proportion in the top quintile exceeding a third in all of the countries, apart from Cyprus, Slovenia and the Czech Republic and being as much as a half in Latvia.

Table 1. People living in households unable to afford one week's holiday a year, by income quintile, 2005

% in each quintile

	Quintiles [1]				
	1	2	3	4	5
LU	35	13	7	2	1
AT	45	33	23	15	9
UK	45	34	21	12	5
DK	24	18	5	3	1
NL	41	28	13	6	2
BE	58	36	23	12	5
IE	51	41	18	9	3
DE	51	28	15	9	4
FI	46	26	16	9	2
FR	60	44	28	16	8
SE	35	21	15	7	2
CY	81	70	59	40	15
IT	71	51	38	24	11
SI	62	43	32	18	9
ES	64	55	44	30	11
EL	77	69	56	36	13
PT	81	81	68	51	20
CZ	74	55	37	26	11
HU	84	79	73	59	36
SK	71	72	66	53	34
PL	89	87	80	63	34
EE	88	85	74	56	26
LV	93	89	81	69	50
LT	92	85	77	65	34

[1] *Quintiles are based on equivalised income*

Source: EU-SILC 2005

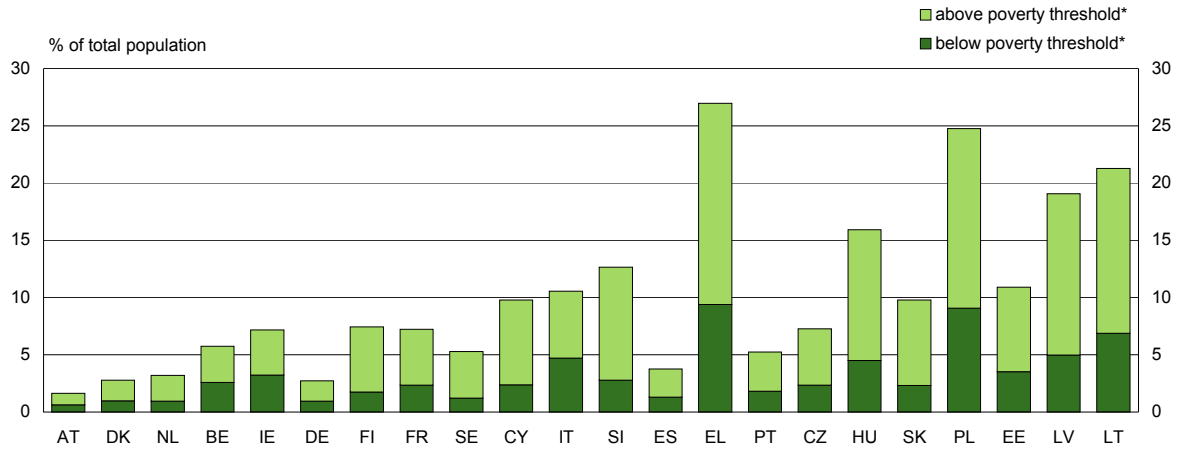
FINANCIAL INDICATORS OF DEPRIVATION

The EU-SILC contains a number of indicators of financial difficulty, including being in arrears on rent or mortgage payments, on hire purchase or other loans payments and on utility bills. The last seems to be the most relevant of the three to serve as an indicator of deprivation, since nearly all households are likely to have such bills whereas this is not necessarily the case as regards the other two, particularly the first, as shown below. Unlike the other indicators examined above, however, is still likely to reflect differences in household behaviour – in particular, the extent to which the people concerned seek to avoid having debts – as well as financial hardship as such.

This is perhaps reflected in the fact that there is less of difference between the EU15 countries and the new Member States in the relative number reporting being in arrears in paying their utility bills. The number concerned is relatively small in most EU15 countries – around 5% or

less in the majority of cases and over 8% only in Italy (11%) and, most markedly, in Greece, where the proportion is higher than anywhere else in the Union (27%) (Figure 5). In the new Member States, it is less than 10% in Cyprus, the Czech Republic and Slovakia, but over 20% in Lithuania and around 25% in Poland. In all countries, most of the people concerned have income above the poverty line.

Fig.5 Proportion of population in arrears on utility bills, 2005



MT, UK: data not available;
** poverty threshold: 60% of the national median equivalised income*
Source: EU-SILC 2005

Although there is some overlap between the people who are in arrears on their utility bills and the other measures of deprivation examined above, is by no means complete. In particular, many of the people who report being unable to afford a meal of meat or fish every other day, do not report being behind on their utility bills, seemingly confirming that financial hardship as such does not necessarily lead to the accumulation of debt.

In the EU15 countries, therefore, with the exception of Luxembourg and Austria, relatively few of those reporting being behind on their utility bill payments report not being able to afford a decent meal every other day, even in the case of those with income below the poverty line (Table 2).

In the new Member States, however, apart from Cyprus and Slovenia, the overlap is greater, especially among those with income below the poverty line, with two-thirds or more of those reporting being in arrears on their utility bills also reporting an inability to afford a meal with meat or fish every other day in the Czech Republic, Hungary, Slovakia, Poland and Latvia. Even among those with income above the poverty line, the proportion is over 40% in the last four countries and over 35% in the Czech Republic.

Table 2 Overlap between being arrears on utility bills and not being able to afford a meal of meat or fish every other day

	In arrears and unable to afford a meal every other day	
	% above poverty line	% below poverty line
LU	6.9	41.3
AT	30.4	49.3
UK	-	-
DK	9.6	24.5
NL	10.3	23.9
BE	10.1	22.8
IE	14.1	27.8
DE	22.3	43.3
FI	8.0	17.4
FR	17.5	31.0
SE	11.2	18.8
CY	11.2	26.5
IT	14.5	27.5
SI	20.1	27.5
ES	3.3	17.9
GR	15.1	33.3
PT	3.5	19.9
CZ	35.8	70.8
HU	49.2	66.5
SK	45.2	68.6
PL	42.3	68.4
EE	19.1	49.0
LV	46.0	75.4
LT	29.9	56.5

Note: UK no data

Capacity to face unexpected expenses

The EU-SILC also contains a question on the capacity of households to cover an unexpected cost from its own resources In order to try to make this more objective and the answers more comparable across Member States, the amount of the unexpected cost was explicitly related to the level of income in each country (specifically to the poverty threshold)[29]. The number of people who reported not having the ability to do so was relatively large in all Member States. It was considerably larger, however, in most of the new Member States than in other parts of the EU, despite the fact that the scale of the cost involved represented a similar share of income as in other parts of the EU. This suggests that the ability to meet such costs is not proportionate to income but is less in low income countries, reflecting the smaller amount of money left over after essential items have been purchased.

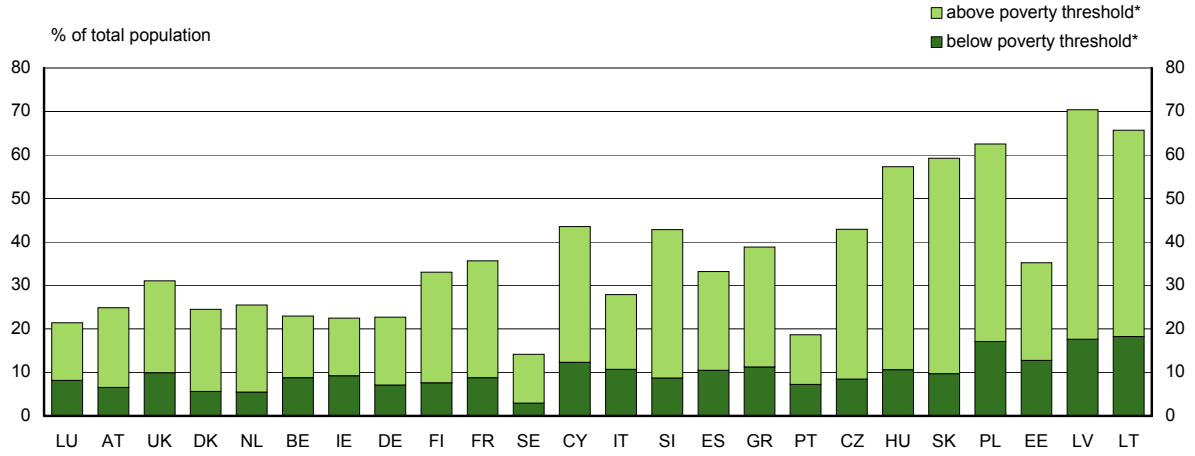
In EU15 countries, therefore, with the sole exception of Sweden and, perhaps surprisingly, Portugal, over 20% of the population reported difficulties in meeting an unexpected cost of this

[29] Specifically, respondents were asked whether their household could afford an unexpected required expense of an amount equal to the poverty threshold, expressed as a monthly sum, from its own resources.

size. In the UK, Finland, France and Spain, the proportion was over 30% and in Greece close to 40% (Figure 6).

In all the new Member States, with the sole exception of Estonia, where the question asked was somewhat different, over 40% of the population reported that they would have difficulties, including in Cyprus and Slovenia where average income levels are higher. In Hungary and Slovakia, the proportion was 55-60% and in Poland, Latvia and Lithuania, 60-70%. In all cases, over 70% of those declaring themselves unable to cover an unexpected cost had income above the poverty line. In broad terms, therefore, the ability to cover a significant unexpected cost varies with income levels. In all countries, moreover, those with income above the poverty line accounted for more of the people concerned than those with income below the line, in most countries, substantially more (in all of the new Member States except Estonia, over 70% of the total concerned).

Fig.6 Proportion of population unable to face unexpected financial expenses, 2005



** poverty threshold: 60% of the national median equivalised income. Countries are ordered by average disposable income per (equivalised) head measured in PPP terms.*

Source: EU-SILC 2005

Housing costs – a digression

The EU-SILC includes, in addition, a question on whether or not households are in arrears on their rent or mortgages. Although this is intended to give an indication of the extent of financial hardship they experience, in practice, a large number of people in all EU Member States are found to have no such costs as such either because they own their own houses and not have a mortgage or because they live in housing which is rent free. Accordingly, the data collected gives only a very partial view of financial difficulties because the question is not relevant for many households but it does, on the other hand, give an insight into the extent to which people with different levels of income do not have housing costs to meet.

In the EU15, the number of people concerned varies from only 6% in Sweden – the only country in the Union where the proportion is less than 25% – to over two-thirds in Italy and Greece (Table 3). In the new Member States, the proportion is much higher than in the EU15 in most cases, rising to around 90% in Slovenia, Poland and Lithuania. In 8 of the 24 countries, the proportion of people with income above the poverty line not having housing costs exceeds the proportion of those with income below the poverty line, while in three countries – Ireland, France and Sweden, the two proportions are much the same. Only in a small majority of countries, therefore – 13 of the 24 – does the proportion of those with income below the poverty line not having to pay housing costs exceed the proportion above the line. In 6 of these countries, moreover, the difference between the two proportions is 3 percentage points or less and in only two countries – Cyprus and Portugal – is the difference more than 8 percentage points. In most Member States, therefore, there is not much difference between the relative numbers of people with income above and below the poverty line who do not have housing costs to pay.

Table 3 Proportion of people living in households with no housing costs, 2005

	Income above poverty line					Income below poverty line				
	% with no rent or mortgage	Owner	Tenant	Reduced rent	Rent free	% with no rent or mortgage	Owner	Tenant	Reduced rent	Rent free
		% total with no rent/mortgage					% total with no rent/mortgage			
LU	**35**	92	0	0	8	**21**	70	0	0	29
AT	**40**	86	0	0	14	**34**	75	0	0	25
UK	**25**	96	0	0	4	**33**	93	1	0	6
DK	**-**	-	-	-	-	**-**	-	-	-	-
NL	**-**	-	-	-	-	**-**	-	-	-	-
BE	**34**	96	0	0	4	**28**	89	0	0	11
IE	**44**	99	0	0	1	**45**	95	0	0	5
DE	**26**	92	0	0	8	**21**	76	1	0	23
FI	**35**	98	0	0	2	**38**	92	0	0	8
FR	**29**	89	0	0	11	**30**	79	0	0	21
SE	**6**	98	1	1	0	**6**	93	7	0	0
CY	**59**	82	0	0	18	**75**	60	0	0	40
IT	**68**	88	0	0	12	**65**	80	0	0	20
SI	**90**	92	0	0	8	**78**	88	0	0	12
ES	**58**	91	0	0	9	**66**	86	0	0	14
EL	**68**	92	0	0	8	**75**	90	0	0	10
PT	**48**	85	0	0	15	**58**	79	0	0	21
CZ	**44**	94	0	0	6	**34**	85	0	0	14
HU	**78**	93	1	1	5	**81**	91	1	1	8
SK	**52**	87	5	6	2	**55**	80	5	8	6
PL	**89**	61	0	0	39	**91**	70	0	0	30
EE	**82**	95	1	0	4	**89**	88	1	1	9
LV	**79**	94	1	0	5	**77**	90	0	1	9
LT	**93**	93	0	0	7	**95**	82	0	0	18

Note: DK and NL, no data

In all countries, the main reason for people not having housing costs is because they own their own houses. Over 85% of those with income above the poverty line with no (or low) housing costs fall into this category in all countries except Cyprus and Poland, in the last of which almost 40% of those concerned live in rent-free accommodation, over twice the proportion in Cyprus, the country with the second highest proportion.

Among those with income below the poverty line, 20% or more with no housing costs live in rent-free accommodation in 8 of the countries, but it is still the case that 70% or more of those concerned own their own houses in all countries apart from Cyprus, where 40% live in rent-free accommodation.

People experiencing at least one form of deprivation

There is a good deal of overlap between the people reporting having difficulty affording the items examined above, being in arrears in paying their utility bills or not being able to cover unexpected costs. Many of the people, in other words, experience material deprivation according to more than one indicator. Nevertheless, a significant proportion of the population in nearly all countries experience material deprivation according to at least one of the items considered above. The proportion concerned, moreover, varies relatively closely with the median level of income per head of countries, with a few significant exceptions.

Leaving the capacity to face unexpected expenses aside, the proportion of people reporting not being able to afford any one of a telephone, TV, washing machine, a car or a decent meal at least once every other day or who were in arrears on their utility bills amounted to just 6% in Luxembourg, the country with by far the highest median income per head, and 10-12% in Austria, the UK, Denmark and the Netherlands, the four countries with the next highest levels (Table 4). The proportion, however, was equally small in Sweden and Spain, where income per head was lower, especially in the latter. Similarly in Portugal, only 17% of people lived in households not able to afford at least one of the items in question or in arrears on utility bills, which is the same as in Germany or Finland where income per head is much higher.

In the new Member States, the proportion was around 40% or more in all the countries apart from Cyprus and Slovenia where median income per head is higher than in Spain, Greece or Portugal, and the Czech Republic, where median income was lower but where the proportion (at 29%) was also well below 40%. In Slovakia, Poland, Latvia and Lithuania, it was 50% or more. In most countries, and in all of the new Member States, around two-thirds or more of those concerned had income above the poverty line.

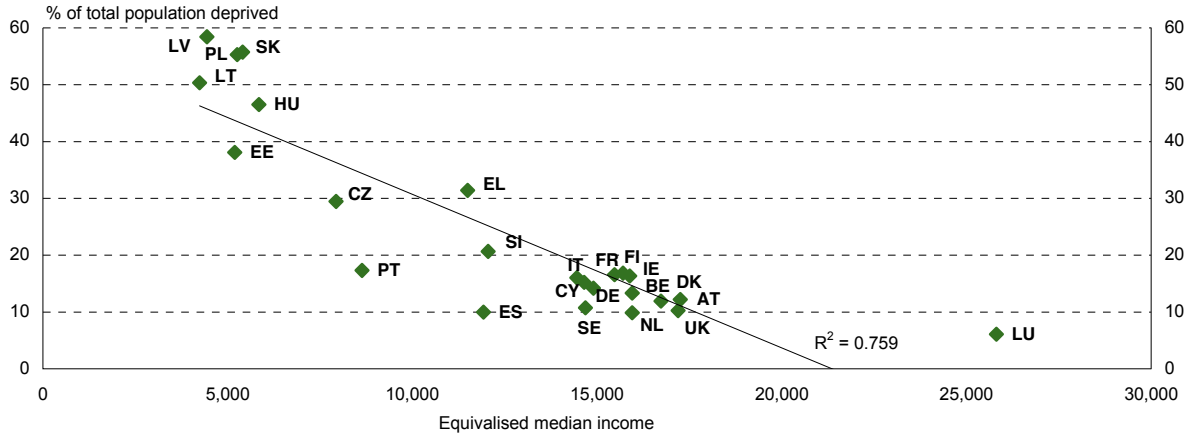
Table 4 Population deprived according to at least one indicator, 2005

	% of total population						*% unable to meet unexpected costs*		
	Phone, TV, washing machine, car, meal, utility bills			Phone, TV, washing machine, car, meal, utility bills+unexpected cost			Extent of overlap of capacity to meet unexpected costs with items in first columns		
	Total	Income above 60% median	Income below 60% median	Total	Income above 60% median	Income below 60% median	Total	Income above 60% median	Income below 60% median
LU	6	3	3	23	15	8	21	14	32
AT	12	9	4	29	22	7	33	28	46
UK	10	6	4	33	22	10	28	23	40
DK	12	8	4	28	22	7	33	27	55
NL	10	7	3	28	22	6	30	26	44
BE	13	7	6	26	17	10	44	34	60
IE	16	9	7	28	17	11	47	39	57
DE	17	11	6	29	21	9	46	38	64
FI	17	12	5	37	28	8	39	34	57
FR	14	10	5	38	29	9	33	28	48
SE	11	8	2	19	15	4	38	36	47
CY	15	10	5	46	34	13	28	24	39
IT	16	9	7	33	21	12	39	31	52
SI	21	16	5	47	38	9	38	35	52
ES	10	6	4	36	25	11	21	17	30
EL	31	21	11	49	35	14	54	47	70
PT	17	11	6	27	18	9	46	39	58
CZ	29	23	7	50	41	9	52	46	73
HU	46	37	10	66	55	12	65	62	82
SK	56	47	9	72	62	11	72	71	80
PL	55	40	16	73	54	18	72	68	84
EE	38	27	12	50	35	15	66	62	74
LV	58	43	16	78	59	18	73	68	86
LT	50	35	16	72	53	19	67	60	83
EU-25	20	13	6	38	28	11	44	39	57

Note: Countries are ranked by median disposable income per head on an equivalised basis and measured in purchasing power terms.

With a few exceptions, therefore, there is a close inverse association across EU Member States between the proportion who are materially deprived according to at least one indicator and the median level of income per head (Figure 7).

Fig 7 Distribution of EU Member States by equivalised median household income (in PPS) and proportion of population deprived*, 2004



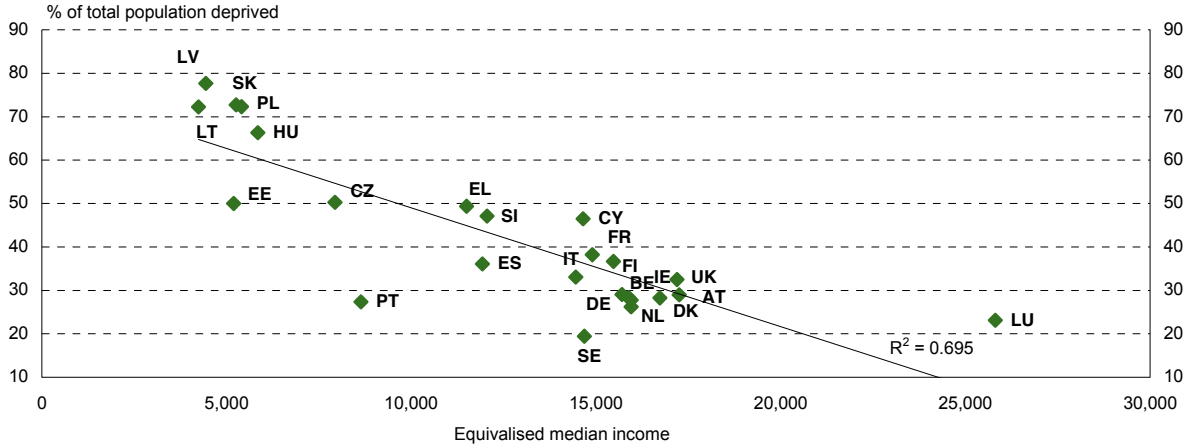
** Unable to afford phone / TV / washing machine / car / decent meal and/or in arrears on utility bills* *Source: EU-SILC*

If the range of indicators of financial hardship is extended to include a lack of capacity to meet unexpected expenses, the proportion of people measured as being materially deprived according to at least one indicator is increased significantly in all countries, reflecting the limited overlap between this indicator and the others in many cases. The proportion of people concerned increases to 25% or more in all Member States, except Luxembourg, where it is just below, and Sweden, where is only 19%, reflecting the smaller extent of financial difficulties than in other parts of the EU. In Greece, it is increased to almost half, while in all of the new Member States, except Cyprus and Slovenia, where it is just below, it is increased to 50% or more. In Slovakia, Poland, Latvia and Lithuania the proportion exceeds 70%.

In the new Member States, again with the exception of Cyprus and Slovenia, there is a higher degree of overlap between being unable to meet unexpected expenses and the other indicators of deprivation or financial hardship than in all the EU15 countries apart from Greece. In the Czech Republic over 50% of those without the resources to cover an unexpected expense also report being unable to afford one or more of the items taken as indicators of deprivation; in the other transition countries, this proportion rises to over 65%. The extent of overlap is particularly large among those with income below the poverty line. In Hungary, Slovakia, Poland, Latvia and Lithuania 80% or more of those with income below the poverty line and reporting an inability to meet unexpected expenses also report financial difficulties in relation to the other indicators.

If the indicators of material deprivation are extended in this way, there remains a relatively close inverse relationship between those measured as being deprived and median income levels (Figure 8)

Fig 8 Distribution of EU Member States by equivalised median household income (in PPS) and proportion of population deprived*, 2004



** Unable to afford phone / TV / washing machine / car / decent meal and/or unable to face unexpected expenses* *Source: EU-SILC*

Housing conditions

A significant number of people in all Member States, with the exception of the three Nordic countries and Slovakia, report problems with leaking roofs, damp walls, rotten floors and window frames or similar. The proportion of the population concerned in the EU15 ranges from 10% in Austria to around 20-21% in Greece and Portugal and 23% in Italy (Table 5). In the latter three countries, however, because of the warmer climate, it is perhaps not so much of a problem in many cases as in the north of Europe. In all the countries, well over two-thirds of the people affected have income above the poverty line, though it is still the case that a much larger share of those with income below this report this kind of problem (20-30% of them in all the countries apart from Austria and the three Nordic countries).

In the new Member States, apart from Slovakia, the number of people with housing problems of this kind ranges from 19-20% of the population in Slovenia and the Czech Republic and 25% in Estonia to 32-33% in Hungary and Lithuania and 40-44% in Latvia and Poland. Again, most of those concerned – over 75% – have income above the poverty line, but a much larger share of those with income below the poverty line have housing problems of this kind. The people concerned, therefore, suffer both from having a low income and living in poor housing conditions.

Hardly anyone in the EU15 countries lives in households where there is no indoor bath (or shower) or toilet for their sole use. However, this is not so in the new Member States. Although the proportion is not large in most countries, it is still the case that in Hungary and Poland, 7-9% of people live in households where there is either no bath or indoor toilet or both, while in

all three of the Baltic States, 20–23% of people live in households which do not have an indoor bath or shower and 17–25% in ones which do not have an indoor toilet.

Moreover, many of the households concerned also have a leaking roof, damp walls or similar problem. In Hungary, therefore, 5% of the population live in households with no indoor bath, shower or toilet and a leaking roof, damp walls or similar problems. In Poland and Estonia, the proportion was 6%, in Lithuania, 10% and in Latvia, as much as 14% – around one in 7 of the population.

Table 5 Population reporting various problems with housing, 2005

% Total population

		Leaking roof, damp walls, floors…	*No indoor bath or shower*	*No indoor toilet for sole use*	*Leaking roof, etc + no bath*	*Leaking roof, etc + no toilet*	*All 3 problems*	*At least 1 of 3 problems*
LU	>60% median	12	0	0	0	0	0	12
	<60% median	3	0	0	0	0	0	3
AT	>60% median	8	0	1	0	0	0	9
	<60% median	2	0	1	0	0	0	2
UK	>60% median	11	0	1	0	0	0	11
	<60% median	4	0	0	0	0	0	4
DK	>60% median	7	0	0	0	0	0	7
	<60% median	1	0	0	0	0	0	2
NL	>60% median	15	0	0	0	0	0	15
	<60% median	3	0	0	0	0	0	3
BE	>60% median	11	1	1	0	0	0	12
	<60% median	4	1	0	0	0	0	4
IE	>60% median	8	0	0	0	0	0	8
	<60% median	4	0	0	0	0	0	4
DE	>60% median	11	0	1	0	0	0	11
	<60% median	3	0	0	0	0	0	3
FI	>60% median	4	1	1	0	0	0	5
	<60% median	1	1	0	0	0	0	1
FR	>60% median	10	1	1	0	0	0	10
	<60% median	3	0	0	0	0	0	3
SE	>60% median	5	0	0	0	0	0	5
	<60% median	1	0	0	0	0	0	1
CY	>60% median	29	1	1	0	0	0	30
	<60% median	7	1	1	1	0	0	7
IT	>60% median	17	0	0	0	0	0	17
	<60% median	6	0	0	0	0	0	6
SI	>60% median	15	1	1	1	0	0	16
	<60% median	4	1	1	1	1	0	4
ES	>60% median	13	0	0	0	0	0	13
	<60% median	5	0	0	0	0	0	5
GR	>60% median	15	1	2	0	1	0	16
	<60% median	6	1	2	1	1	0	7
PT	>60% median	14	2	2	1	1	1	15
	<60% median	6	2	1	1	1	1	6
CZ	>60% median	17	1	1	0	1	0	18
	<60% median	3	1	1	1	1	1	3
HU	>60% median	27	5	5	3	3	3	29
	<60% median	6	3	3	2	2	2	7
SK	>60% median	5	1	2	0	1	0	7
	<60% median	2	1	1	0	0	0	2
PL	>60% median	32	5	4	4	3	3	33
	<60% median	12	4	3	3	3	3	13
EE	>60% median	18	14	12	5	4	4	28
	<60% median	7	6	5	3	2	2	10
LV	>60% median	29	14	14	9	8	8	36
	<60% median	11	9	9	6	6	6	13
LT	>60% median	23	13	15	6	6	5	32
	<60% median	9	10	10	5	5	5	15

Note: Countries ranked by median equivalised income of people

Poor housing conditions and financial hardship

In a number of cases, those living in poor housing conditions also face financial hardship – indeed the latter tends to reinforce the former. This is particularly the case in many of the new Member States, though much less so in the EU15 countries. Accordingly, in Hungary, Poland and Latvia, around 45% of those living in housing in a poor state of repair also had financial problems as indicated by their inability to afford a meal of meat or fish or the vegetarian equivalent at least every other day, while in Slovakia, the figure was as much as 57% (Table 6, right-hand columns). For those with income below the poverty line, the proportion was even higher in these countries, 64-67% in the first three and 73% in Slovakia.

In the EU15 countries, by contrast, the link between poor housing and financial difficulties was less close. The proportion of those living in poor housing and unable to afford a decent meal every other day was under 25% in all except Austria and Germany, where as noted above, there may be problems with this indicator.

As a result of the coincidence of poor housing and financial difficulties, some 21% of the population in Poland in 2005 reported that they suffered from both kinds of problem (Table 6 – left-hand columns). Over 60% of these had income above the poverty line, but 8% of the population could not afford such a meal, lived in poor housing and had income of less than 60% of the national median. In Latvia, the proportion facing all three problems was only slightly smaller at 7%.

Table 6 People living in poor housing who also have financial problems, 2005

	% population with leaking roof, etc plus cannot afford a decent meal every other day			% population with leaking roof, etc who cannot afford a decent meal every other day		
	Total	>60% median	<60% median	Total	>60% median	<60% median
LU	0.6	0.3	0.3	4.2	2.7	11.5
AT	1.7	1.2	0.5	17.7	14.9	31.2
UK	1.3	0.7	0.6	9.2	6.9	15.8
DK	0.2	0.1	0.1	2.6	2.0	5.6
NL	0.6	0.4	0.2	3.4	2.9	6.1
BE	1.2	0.5	0.7	8.3	4.6	18.6
IE	1.0	0.4	0.7	8.6	4.6	16.5
DE	2.4	1.4	1.0	17.8	13.4	34.6
FI	0.4	0.3	0.1	8.2	6.7	14.3
FR	1.5	0.9	0.6	12.4	9.2	24.0
SE	0.2	0.1	0.1	3.5	2.4	14.5
CY	3.1	1.7	1.4	8.5	5.7	19.9
IT	2.7	1.4	1.3	12.0	8.4	22.7
SI	3.3	2.2	1.0	17.2	14.5	28.6
ES	0.8	0.3	0.6	4.8	2.0	12.4
GR	2.6	1.2	1.4	12.3	8.0	23.3
PT	2.1	0.7	1.3	10.3	5.3	22.6
CZ	5.9	4.2	1.7	28.9	24.4	52.4
HU	14.3	10.3	4.0	43.1	38.1	64.7
SK	4.1	2.8	1.3	56.7	51.7	72.6
PL	20.6	12.6	7.9	46.7	39.9	64.1
EE	5.3	2.8	2.5	21.6	15.4	38.4
LV	18.1	11.0	7.1	45.3	37.4	67.4
LT	11.4	6.2	5.2	35.6	27.4	55.6

CONCLUDING REMARKS

The above analysis suggests that the extent of material deprivation and financial hardship across the EU is reflected only to a limited extent by the income based indicator conventionally used to measure the risk of poverty. This is particularly so in many of the new Member States where a significant proportion of the population live in households which report not being able to afford particular consumer goods or a decent meal at least once every other day. Most of the people concerned have income above the risk of poverty threshold. The same is the case as regards other indicators of financial hardship, in particular, being in arrears on utility bills and not having the resources to meet unexpected costs.

Equally, a significant number of people in many parts of the EU report living in poor housing, especially again in the new Member States, in some cases in accommodation which lacks an indoor bath or shower and/or an indoor flushing toilet for the sole use of the household. In the lowest income countries, in particular, a sizeable proportion of the population both live in poor housing and face financial hardship. Again many of these have income above the poverty line.

Accordingly, there is a strong case for supplementing the income-based measure used at present to identify and monitor the risk of poverty and social exclusion by indicators of material

deprivation and financial difficulties as well as by indicators of poor housing conditions. This is all the more so since the income-based measures used at present are defined in terms of income relative to the national median, which leaves out of account the large differences which exist between the national medians concerned.

CHAPTER 6 — THE EFFECT OF TAXES AND BENEFITS ON INCOME DISTRIBUTION IN THE EU[30]

INTRODUCTION

One of the main ways in which governments can influence income distribution is through social benefits and taxes. Taxes tend to be progressive in the sense that people with higher incomes pay a higher proportion in tax. Benefits may be targeted on the poor or, even if flat rate, tend to narrow the proportional difference between the incomes of the rich and the poor. When benefits are paid to people in particular circumstances, they, nevertheless, tend to be correlated with low income or greater needs (such as disability) or are benefits which are specifically intended to replace income from work (unemployment benefits and pensions, for example). The scale of this redistribution varies significantly across countries, depending not only on the extent of social security arrangements and the total personal tax burden but also on how benefits are targeted and the progressivity of the tax and social contribution system[31]. Some of the technical issues surrounding the assessment of the effects of taxes and benefits on income inequality were considered in last year's Annual Report[32], in particular how the measurement of incomes before taxes and benefits and the measure of inequality used affects the outcome.

The concern here is, first, to update some of the summary measures of the effects of taxes and benefits on income inequality and to examine the distribution of original and disposable income and the scale of redistribution in different Member States.

The main focus is on the effect of household composition on household disposable income given the taxes and benefits in place, some of which are contingent on the presence in households of individuals of a specific age. Many benefits, including public pensions, are designed to support people in particular circumstances. How these are used in particular types of household, however, is something we know very little about. In measuring income in order to assess the extent of poverty and inequality, the convention is to aggregate all household incomes, regardless of their source of income. Similarly, all taxes and charges ion income are deducted, regardless of the individual or couple on whom the liability falls. The analysis here draws out the implications of this household sharing assumption for the incidence of benefits

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[30] Holly Sutherland, Francesco Figari and Alari Paulus, Institute for Social and Economic Research, University of Essex. We are grateful to Manos Matsaganis for useful comments.

[31] See Annual Report of the Social Inclusion and Income Distribution Network, 2005,(Chapter 6/

[32] Annual Report of the Social Inclusion and Income Distribution Network, 2006,(Chapter 5.

intended for children and for pensioners. It also considers how the taxation of benefits and pensions mitigates or accentuates their redistributive effects.

The analysis in addition, addresses the issue of how to compare payment across countries using a common measure, given the differing levels of incomes across EU Member States and explores the sensitivity of the results to a range of adjustment factors. As well as examining their role in the redistribution of household income, the analysis also explores the effects of child benefits and benefits paid to those in retirement in protecting the specific groups concerned from poverty as compared with benefits that are not age-specific.

The estimates are derived by using EUROMOD, the multi-country tax-benefit micro-simulation model, which covers all EU-15 countries and is at present being extended to the New Member States (see Annex and Sutherland 2007). The estimates relate to 2003 for most countries, except for Denmark, France, Ireland, Italy and Sweden, where they are for 2001.

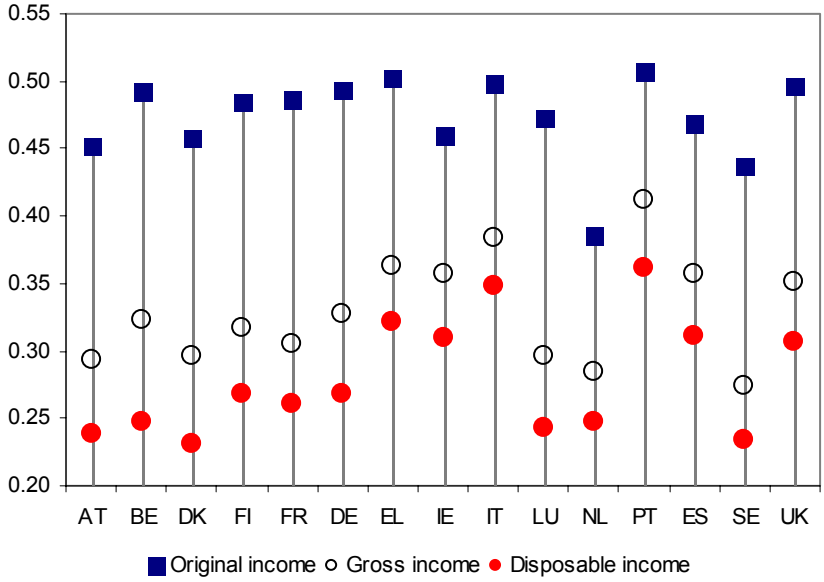
DISTRIBUTION OF ORIGINAL INCOME AND EQUALISING EFFECTS OF TAXES AND BENEFITS

Across EU, the distribution of original income varies as much as the effect of tax-benefits systems in reducing inequality levels. Figure 1 shows the Gini coefficient for the original income (blue square), for gross income (empty circle) and for disposable income (red circle) for each EU-15 Member State. The distance between the square and circle shaped markers represents the redistributive effect due to benefits and taxes.

In 2003, the inequality in the distribution of original incomes across EU-15 countries, measured by the Gini coefficient, ranged from 0.39 to 0.51. The countries with the lowest original income inequality are the Netherlands (0.39), Sweden (0.44) and Austria (0.45). At the other extreme, the more unequal countries in this regard are Portugal (0.51), the UK, Italy and Greece (0.50).[33]

[33] These calculations include cases where original household income is zero, which are quite prevalent, especially among the elderly in countries with pension systems mainly organised through the public sector, and here counted as benefits rather than original incomes.

Fig. 1 Income inequality 2003 (2001) (Gini coefficient)



Source: EUROMOD

Box – Definition of income concepts

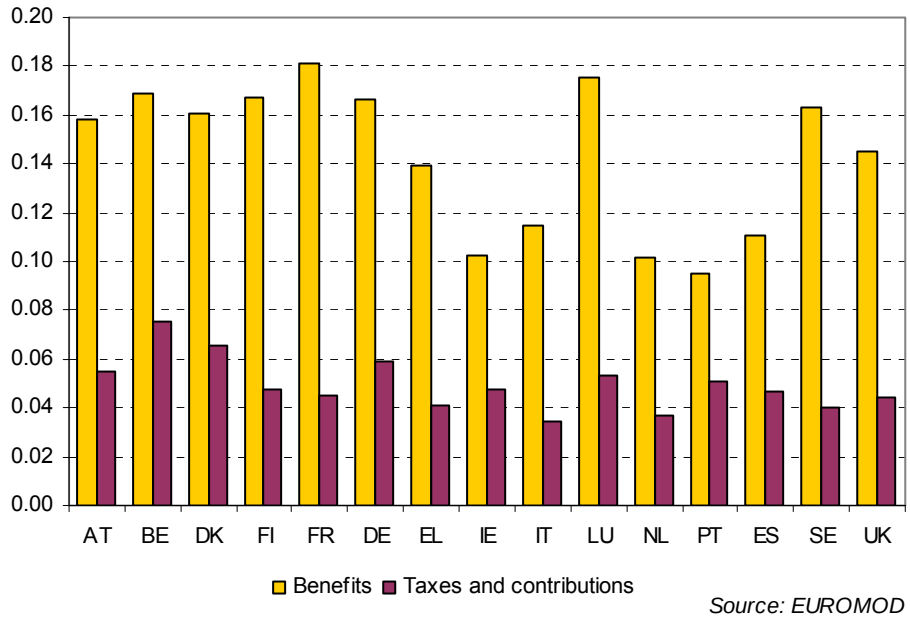
Throughout the analysis, "original income" refers to income before taxes are deducted or cash benefits added. It includes earnings from employment, income from self-employment, capital and private pensions and transfers from other households (such as alimony and child maintenance). "Gross income" is original income plus cash benefits and "disposable income" is gross income less taxes. "Taxes" include income taxes and employee and self-employed social contributions together with other taxes customarily included in the measurement of disposable household income, such as Council tax in the UK and Church taxes in Finland. Locally-administered income taxes are included along with national taxes but indirect taxes are not included. "Benefits" include all the main cash benefits and public pensions. but received by households.

Taxes and benefits play a complementary role in reducing the inequality in the distribution of original income. The overall scale of redistribution from taxes and benefits is relatively large in Belgium (0.24) and Luxemburg (0.23) and relatively small in the Netherlands (0.14) and Portugal, Italy and Ireland (0.15). In terms of disposable income, the countries with the lowest degree of inequality – i.e. the lowest Gini coefficients – are Denmark (0.23), Sweden (0.23) and

Austria (0.24), while those with the highest degree are Portugal (0.36), Greece (0.32) and Italy (0.35).[34]

Although benefits and taxes always have an equalising effect on incomes, the extent to which they serve to reduce inequality is significantly different. The absolute effect of benefits (including public pensions) in this regard is substantially larger that that of taxes in all countries (see Figure 2). Benefits are most effective in reducing inequality in France and Luxembourg (with the Ginis falling by 0.18 in both cases) while they are least effective in Portugal (the Gini falling by 0.09), Ireland and the Netherlands (the Ginis falling by 0.10 in both cases).

Fig. 2 Reduction in original income inequality due to taxes and benefits 2003 (2001) (absolute changes in the Gini coefficient)



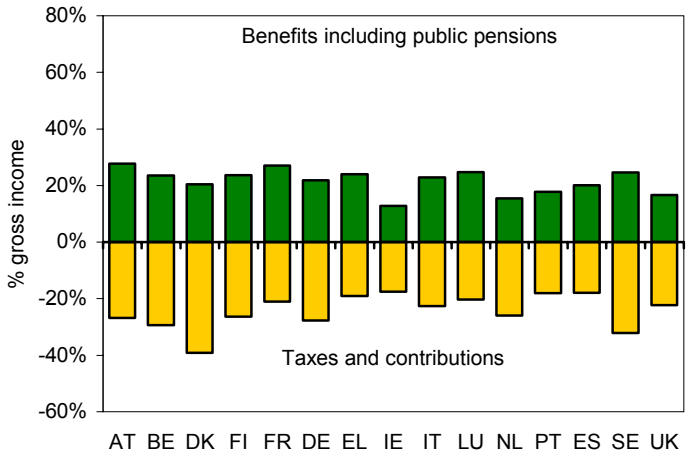
Source: EUROMOD

VARIATIONS IN THE EQUALISING EFFECTS OF TAXES AND BENEFITS

Among the EU-15 countries, benefits (including public pensions) range from 28% of gross income (in Austria) to 13% (in Ireland) (see Figure 3). Taxes and contributions represent deductions from gross income of between 39% of gross income (in Denmark) to 18% (in Portugal, Spain and Ireland).

[34] It should be emphasised that the estimates of inequality and relative poverty presented here are derived from EUROMOD (version D1) and relate to 2003 (2001). They may, therefore, differ from those presented elsewhere in this report, which are based in some cases on different sources. The concern here is not so much with the estimates of income inequality in different countries *per se* but on the effect of benefits and taxes on these.

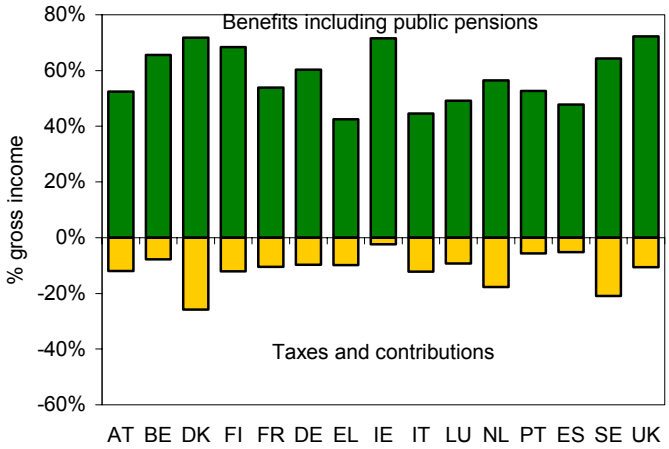
Fig. 3 Taxes and benefits as a proportion of gross incomes 2003 (2001): all households



Source: EUROMOD

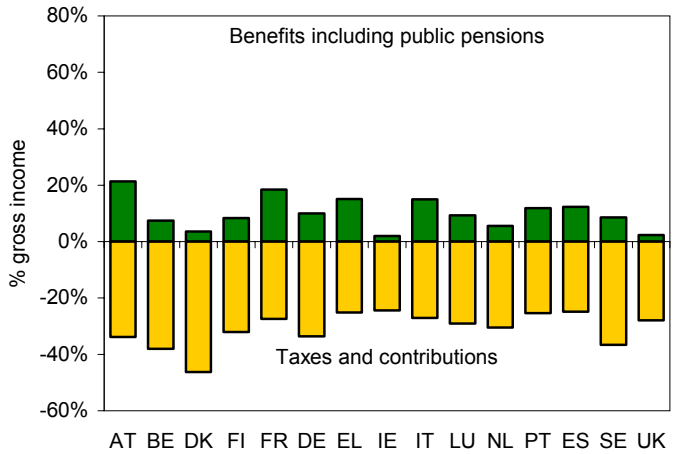
The redistributive effect of a tax-benefit system depends on the size and the structure of the various components and the underlying characteristics of the population in terms of income distribution. The share of gross income made up by benefits and taxes differs for the wealthier and poorer across countries because taxes may be more progressive and benefits more targeted on those with less financial resources. Some indication of this difference is given in Figures 4 and 5 (which show the same information as Figure 3 but for the bottom and top quintiles of disposable income only).

Fig. 4 Taxes and benefits as a proportion of gross incomes 2003 (2001): bottom quintile



Source: EUROMOD

Fig. 5 Taxes and benefits as a proportion of gross incomes 2003 (2001): top quintile



Source: EUROMOD

As expected, social benefits and public pensions are much more important for low income households in the bottom quintile of the income distribution (Figure 4). Social benefits and pensions vary from 43% of gross income in Greece to between 45% and 60% in the majority of countries, over 60% in the Nordic countries and Belgium, and as much as 71-72% in Ireland and the UK. Although most income taxes are progressive, people with low income still pay some taxes and/or social contributions, most especially, in Denmark and Sweden, where they amount 20-25% of the gross income of those in the bottom quintile.

At the top of the income distribution, as would be expected, the relative importance of taxes and benefits in relation to gross income is reversed. In the top quintile, social benefits are still significant in a few countries –around 20% of gross income in Austria and France. On the other hand, they account for only 2-3% of gross income in the UK and Ireland, where social transfers are more targeted on the poorest (Figure 5). The taxes paid by the 20% of households with the highest income levels range from 37% to 46% of gross income in Sweden, Belgium and Denmark to around 25% in Ireland, Spain, Portugal and Greece.

HOUSEHOLD SHARING, HOUSEHOLD COMPOSITION AND THE INCIDENCE OF AGE-TARGETED PAYMENTS

Taxes and benefits can each be decomposed and classified into broad types in order to assess the relative role of each in different countries. The 2006 Annual Report distinguished between public pensions, other non-means-tested benefits and means-tested benefits, and between income taxes and social contributions. Here a somewhat different categorisation is employed: one which focuses on the type of person in the household on whom the support is targeted and, in particular, on payments that are contingent on a child or an elderly person being

present. On the one hand, payments targeted on children are viewed as being intended for spending on children and pension incomes as being intended for the elderly in retirement who in the past contributed to pension schemes or who have derived rights to such pensions[35]. On the other hand, household members are assumed to benefit equally from household income when assessing the risk of poverty or the extent of income inequality, regardless of the specific source of the income concerned. (The extent to which there actually is sharing of individual incomes within the household is not possible to identify from the type of household survey data available.). Accordingly, the way people are grouped into households is critical to their economic well-being. Belonging to a household with people who have l entitlement to large amounts of benefit will, therefore, increase economic well-being relative to being in a household with people without such entitlement. In the case of relatively large payments such as pensions, being in a household with recipients might even result in a higher level of 'equivalised' income as n compared with living alone.

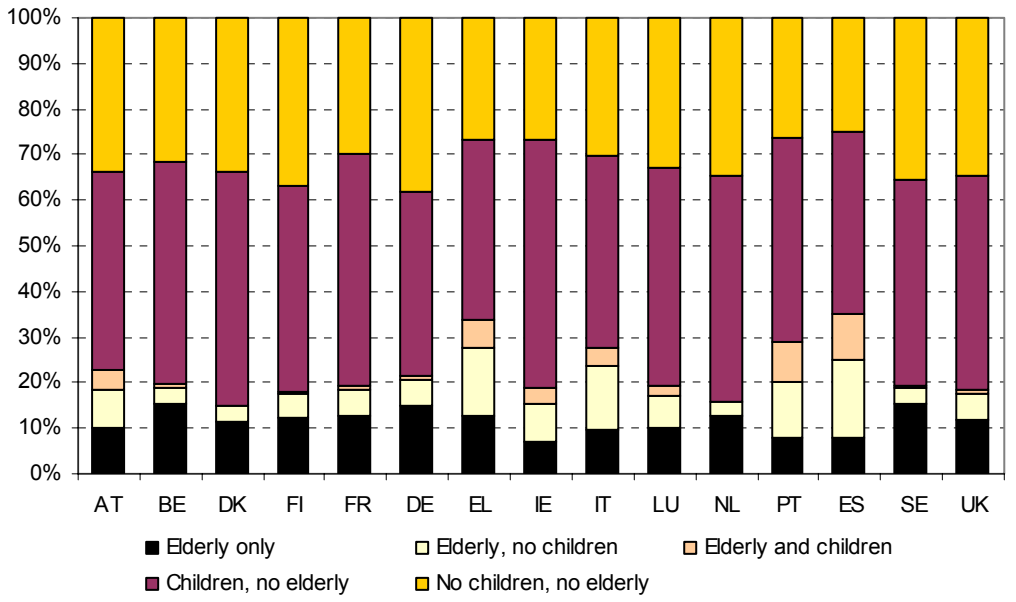
In order to gauge the extent of potential sharing of benefit incomes across the two main demographic groups in receipt of state support (children and the elderly), it is relevant to consider first their presence in different types of household across the EU15 (as indicated in the EUROMOD database which mostly relates to 2003, but see the Appendix to this chapter for the year to which the data relate for each country).

The proportion of people living in households with children exceeds 50% in five out of the 15 countries: Denmark, France, Ireland, Portugal and Spain (Figure 6). (This, it should be noted, is not the same as the proportion of households containing children or the proportion of the population who are children.) At the other extreme, the share of population living in households with children is only 41% in Germany. Restricting the comparison to people living in households with children but without any elderly, the countries with the largest proportions are Denmark, France and Ireland, whereas in the Southern countries, there are more households containing children and the elderly. In Spain, 10% of the population live in such three-generation households, in Portugal, 9%, in Greece, 6% and in Italy, 4%.[36]. The proportion is also relatively large in Ireland and Austria (4% in each case) but very small elsewhere – in Denmark, the Netherlands and Sweden 0.3% or less. The scope for children to benefit from sharing pension incomes – or the elderly to benefit from sharing child-contingent payment – is, therefore, limited in most countries, the main exceptions being Spain and Portugal.

[35] Or, in the case of non-contributory pensions, have entitlement to these incomes by virtue of age and residence or citizenship.

[36] It is possible that some of these households consist of those aged 65 and over with children dependent on them, though the number concerned is likely to be small.

Fig. 6 Share of people by household composition



Source: EUROMOD

The number of households with the elderly sharing with people of working age is larger. The proportion of populations living in such households amounts to between 12% and 17% in the four Southern European countries, though it is only 3-4% in Belgium, Denmark, the Netherlands and Sweden.

Box – Public pension and child contingent income definitions

Public pension income is defined so as to be restricted to those aged 65 or more and to benefits specifically intended to provide income during old age or to replace earnings during retirement. Any other pensions paid to younger people or other benefits paid to the elderly are included in one or other of the cash benefit categories rather than as pension income. Means tested old age schemes are not considered as pensions unless they are an integral part of the pension system. If low pensions are topped up to reach a certain minimum, these supplements are counted as pension income. Private pensions are not included as such but as original income, on the grounds that they are private rather than public. This raises issues of comparability with countries where private pensions are encouraged through tax incentive schemes or are compulsory alternatives to public schemes.

Appendix 2 lists the elements of income in each country that are counted as public pensions.

Child-contingent income is defined as the parts of the tax and benefit system that households receive because of the presence of children. This includes more than payments which are labelled as family benefits since some other benefits contain complements for children. It also includes tax concessions as well as benefit payments. In practice, therefore, all cash payments made because of the presence of a person aged under 18 in the household are considered as child-contingent payments.

The next step in the analysis is to consider the size of benefit payments targeted on children and the elderly and how they are distributed across households of different types given the

assumption of equal sharing of income within households. The focus is, therefore, on the one hand, on "child contingent" benefits – i.e. those dependent on the presence of a dependent child in the household – and, on the other, on "old age person contingent" (see Box above). The remainder of benefit payments are termed "other benefits" below.

The size of public support can be compared across countries in terms of the total amount of benefit payments, net of any taxes on them, averaged over the population as a whole and expressed in relation to average household disposable income per head. In these terms, support is smallest in the EU-15 in Ireland and largest in France at more than twice the size (Figure 7, in which countries are ranked according to the size of the total average benefits paid net of taxes)[37]. This, it should be noted, is not the only method for comparing net benefit levels across countries and an alternative, that of expressing payments in terms of purchasing power parity terms, is considered in the Box below.

It is clear that non-child contingent payments make up the bulk of support in all countries but that the ranking of countries would change somewhat if child-contingent benefits were not included, since their aggregate importance varies more than non-child contingent benefits.

[37] Note that the assumption about the incident for child contingent incomes differs from that used in the previous two Annual Reports in which it was assumed that children alone were beneficiaries since the focus there was on child support. Here all benefit payments are equally apportioned between household member. It should also be noted that benefits payments are assumed to be the "top slice" of the relevant tax base and are, therefore, subject to the marginal tax rate. Accordingly, taxes on child contingent payments are computed as the difference between tax paid on all taxable income and tax paid on income without gross child contingent benefits. Taxes on other benefits are computed as the difference between the tax paid on all taxable income less the tax paid on taxable income less benefits, minus the tax on child contingent benefits.

Fig. 7 Net benefit payments per person as a % of per capita disposable income 2003 (2001)

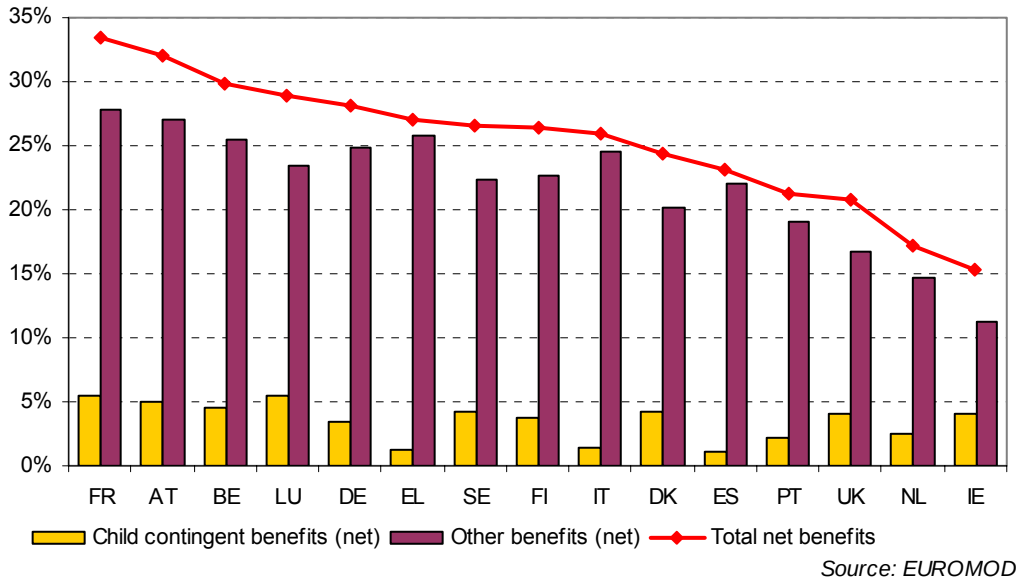
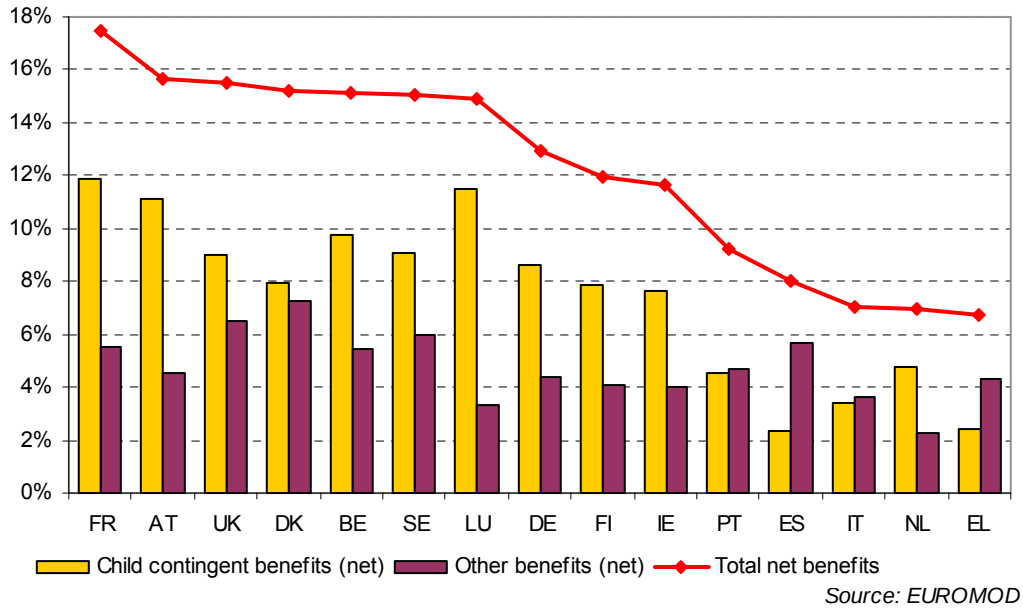


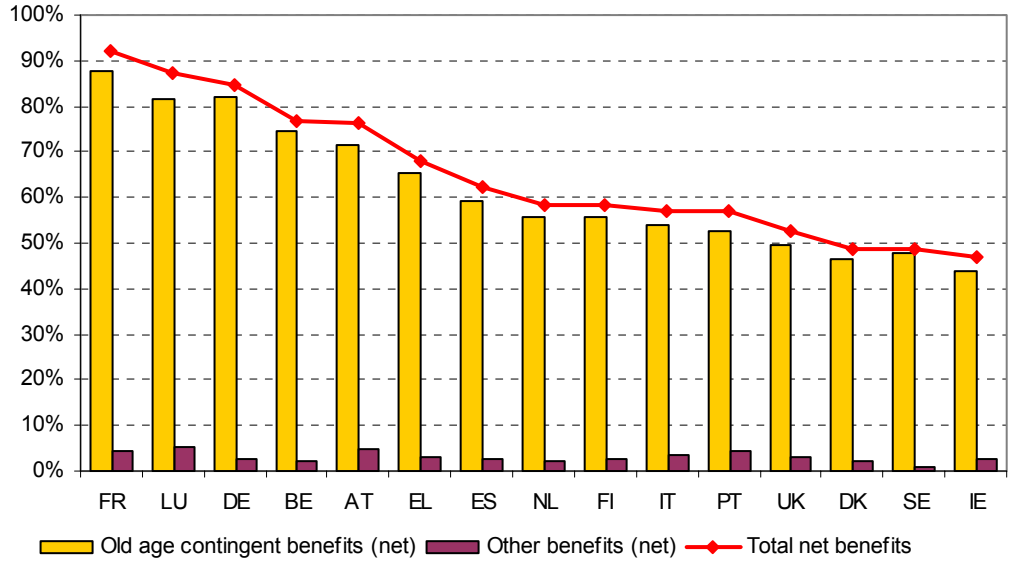
Fig. 8 Net benefit payments per child as a % of per capita disposable income 2003 (2001)



If payments made to households with children alone are considered, not only is the average total net payment per child approximately half the size of the average payment across the whole population but, not surprisingly, the relative importance of child-contingent payments increases (Figure 8). Again, France has the highest total payment (payment per child being around 17.5% of per capita disposable income) and in this case Greece has the lowest payment at just over a third of the relative amount in France. In 6 countries (the UK, Austria, Denmark, Sweden, Luxembourg and Belgium), the total level of support is very similar, though the role played by child-contingent payments in these countries ranges from 78% of the total in

Luxembourg to 52% in Denmark. At the lower end of the scale, total net payments are lowest in the four Southern countries and the Netherlands. The mix between child-contingent and non child contingent net payments also varies in these countries, child-contingent payments being relatively important in the Netherlands (68% of the total) but being small in Greece (36%) and most especially in Spain (29%). In general, there is little correlation between the size of child contingent payments and the size of other payments: they are neither systematically substitutes nor complements for each other.

Fig. 9 Net benefit payments per elderly person as a % of per capita disposable income 2003 (2001)



Source: EUROMOD

A similar analysis for those aged 65 or over highlights the larger scale of old-age contingent benefits relative to other benefits in all countries and relative to child-contingent benefits, in particular[38]. In France, in which the scale is again the largest, the total net benefit payment to the elderly is around 5 times larger than the payment per child. In the UK, where the child payment is the third largest but the payment to the elderly is the fourth lowest among the 15 countries (partly reflecting the relative importance of private pension schemes), the latter is only just over three times larger than the former. In Greece, where payments to the elderly are relatively high and the child payment is the lowest, the former is 10 times larger than the latter.

Nearly all the payments going to households with elderly people are made up of pensions and other benefits contingent on a person being elderly. In all countries, the contribution made by

[38] Child contingent benefits received by some households containing elderly people, which are mostly very small, are included with other non pension benefits.

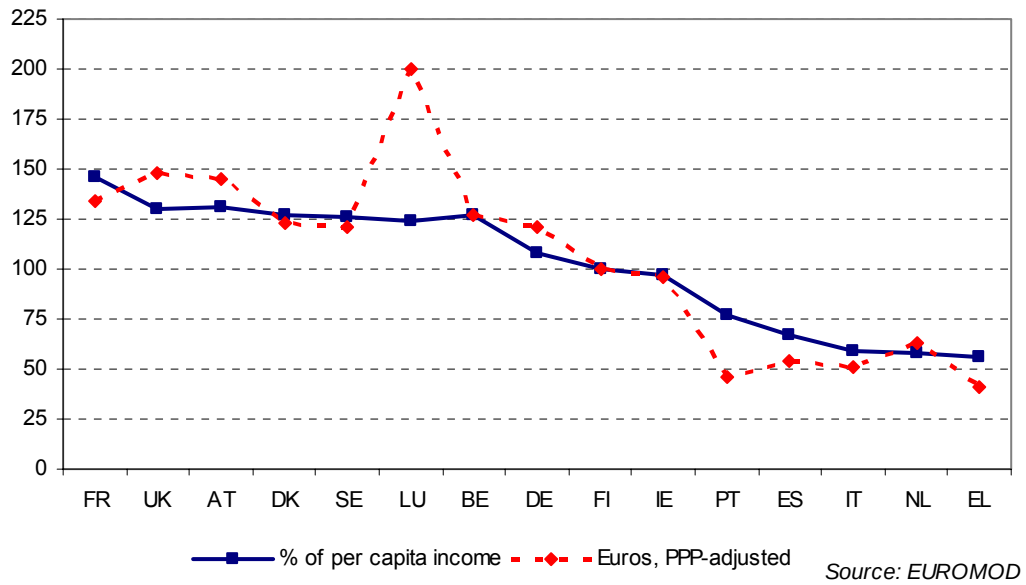
payments to other household members (indicated by "other benefits" in Figure 9) is very small. It is largest in absolute terms in Austria and Luxembourg (6% of the total payment) but makes up the largest share of the total in Portugal (8%).

Box – Comparability of income levels across countries

Throughout the analysis in this chapter, incomes and taxes are normalised by expressing the mounts involved in relation to national per capita household disposable income. In order to indicate how sensitive the comparisons across countries might be to the method of normalisation, the rank order of countries in Figure 7 can be compared with that using payments expressed in purchasing power parity terms, shown in Figure 10, taking Finland (as a country with relatively stable ranking) as 100 in both cases.

Overall, the ranking does not change much. Payments in Luxembourg are increased by most in relative terms, while those in Southern European countries are reduced, most especially in Portugal. Payments in the UK, Austria and Germany appear slightly larger in relative terms when measured in PPP whereas those in France appear slightly smaller.

Fig. 10 Ranking of countries: % of per capita income vs. purchasing power parity adjusted euros (Finland =100)



THE SCALE OF PAYMENTS ACROSS THE INCOME DISTRIBUTION AND BY AGE GROUP

The differences in the average effects of net benefits across countries shown in Figures 7 to 9 may not be the same at different points in the income distribution for two main reasons. First, support may be deliberately targeted by income and delivered through taxes (generally benefiting the better off) or means-tested benefits (generally affecting lower income households the most). Secondly, the distribution of support for children and the elderly will be affected by the position of these in the distribution of original income. The combined effect is

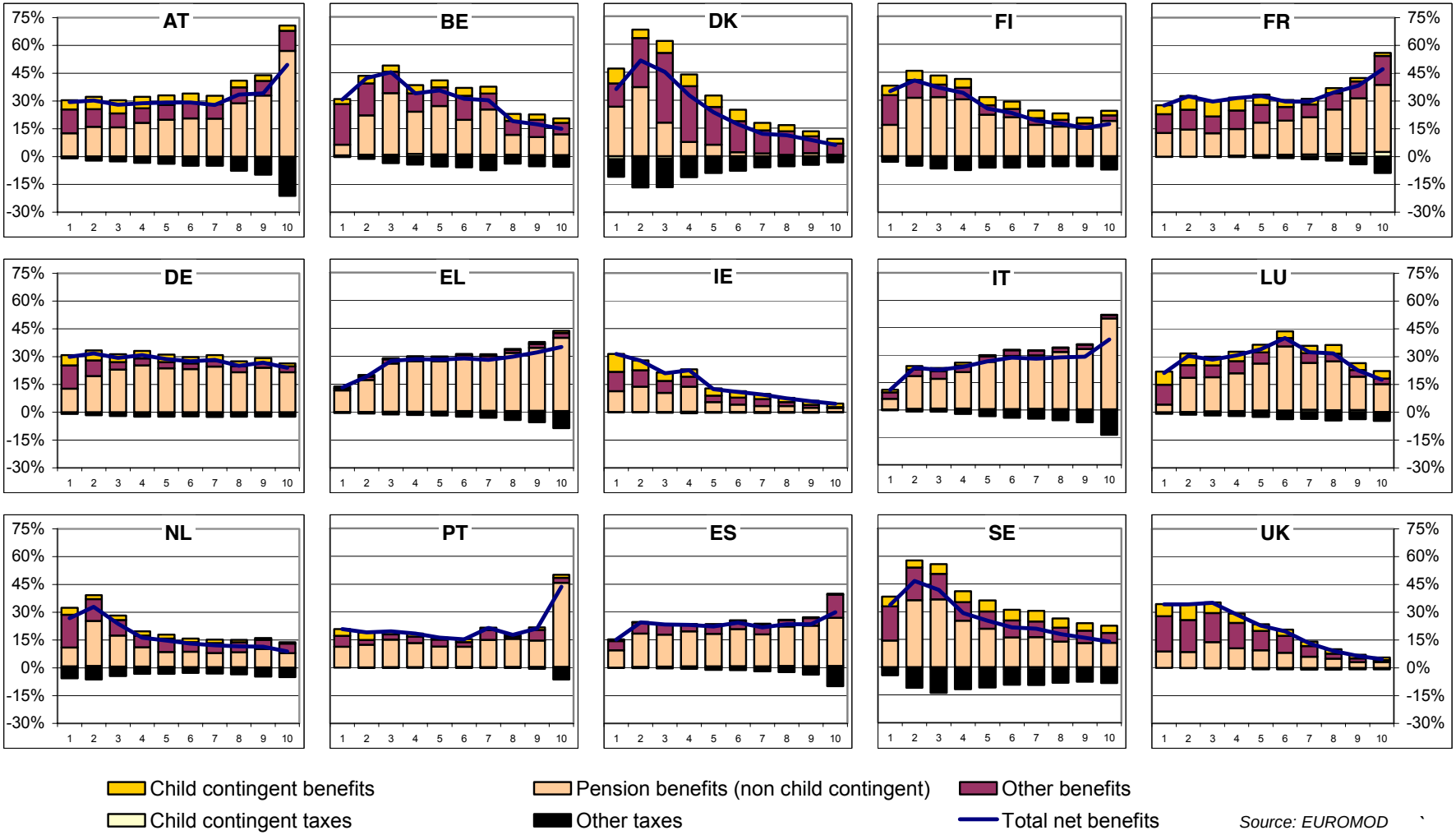
illustrated by the scale of the average net payment of benefits per person in Figure 11 (shown as the line drawn across deciles). As before, payment is normalised by relating it to national per capita household disposable income and the decile groups are constructed on the basis of equivalised household disposable income.

The distributions of total average payments relative to income vary markedly across countries. In some cases, net payments rise with income (Austria, France, Greece, Italy, Portugal and Spain); in some they fall either from the bottom decile (Ireland and the UK) or from the second to the bottom one (Denmark, Finland, the Netherlands, Sweden); and in others, they show an inverse U-shaped form in relation to income with the highest payments in the middle of the distribution (Belgium and Luxembourg) or are virtually proportional to income (Germany).

Breaking down the net effect into its components indicates the basis of these diverse net outcomes. Figure11 splits the net effect into gross payments (shown as positive sections of the bars), divided into child contingent benefits, pension payments and other benefits, and taxes paid on these.[39] Taxes are generally shown as negative amounts but "child contingent taxes" can consist of child tax concessions, which are shown positively, or taxes on child contingent benefits, which are shown negatively. In many countries, a large proportion of the total is made up of pension payments and it is the scale of these at each level of income which largely determines the relationship of the net effect to income. This is particularly so in the countries where the average size of pension payments appears to be largest for those whose income is already relatively high. Almost by definition an elderly person in the top income decile either has a large pension or has significant income from other sources (including from other household members). Countries with large earnings-related public pension systems such as Austria, Greece, France and Italy all show increasing pension payments across all deciles. They also show the effects of tax on these incomes, especially in the upper deciles.

[39] Taxes on pension payments and other benefits are shown together.

Fig. 11 Net benefit payments per person as a % of per capita disposable income 2003 (2001) by decile group



Source: EUROMOD

There is a marked absence of such a pro-rich effect of pensions in the Netherlands, Ireland and the UK where private pensions substitute for public payments, especially for middle and upper income groups. Sweden and especially Denmark, where pension benefits are to a large extent flat-rate in absolute terms, also show a declining effect of pensions as household income rises.

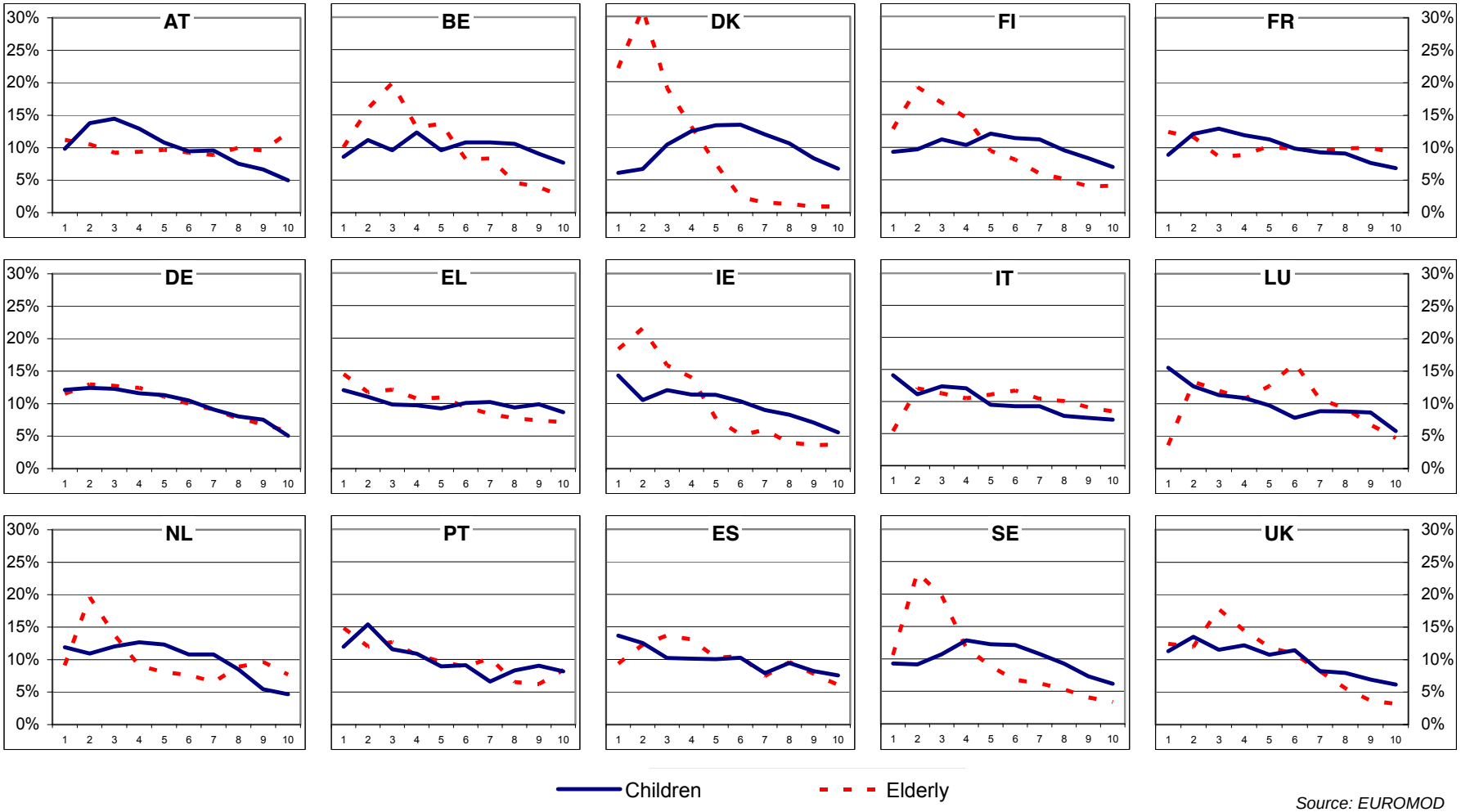
Child-contingent benefits have a smaller effect, as seen above, and tend to have a pro-poor rather than pro-rich distribution across households. In a number of counties, these payments are largest in size not for those in the bottom decile but in the second from bottom (the UK) or the third from bottom (Austria, Italy and France) or generally around the middle of the distribution (Denmark and Sweden). The effect is unambiguously progressive, although not strongly so in Germany and Finland, but more clearly so in Ireland. In Portugal and Spain, the main effect is at both the bottom and top of the distribution and in Belgium and Greece the effect is relatively uniform across all income levels.

Other benefits are also mainly pro-poor in effect although the strength of this varies across countries. Exceptions are Italy and Portugal where the effect is uniform across the distribution, Spain, Greece and France where the effect is pro-rich to some extent, Austria where the effect is U-shaped and Denmark where the effect is inverse U-shaped.

Taxes, including social contributions, on pensions and other non-child contingent payments (shown by the black negative bars in Figure 11) make a substantial difference to the net effect of benefits in Denmark and Sweden and to a lesser extent in Austria, Belgium, Finland and Italy. They make a difference to the size of the net payment at the top of the income distribution in France, Greece, Portugal and Spain. The role of taxes on pension payments in particular is considered in more detail below.

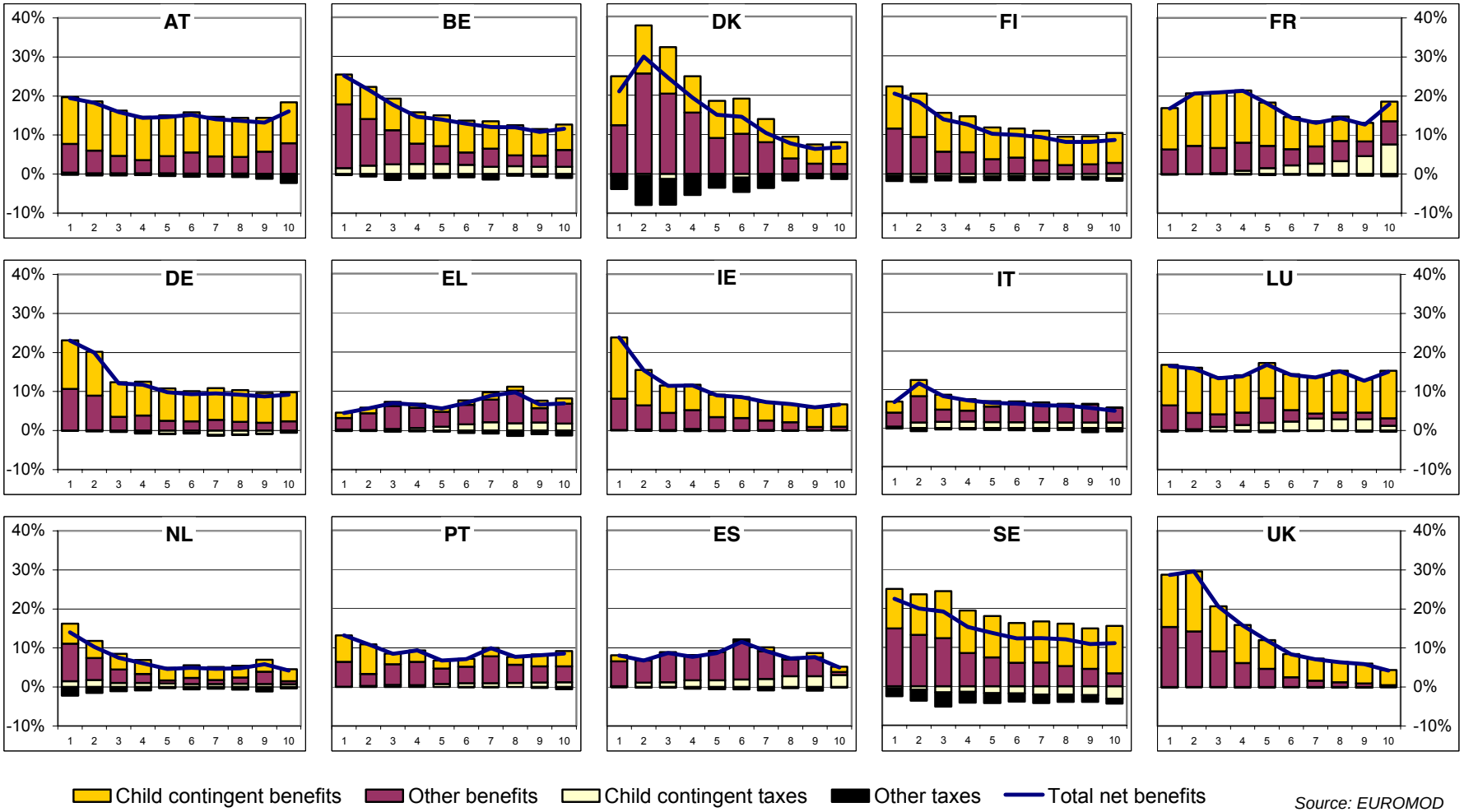
Some of the diversity evident across countries is due to variations in the composition of households at different income levels. For example, the lack of pension income in the top half of the income distribution in Denmark is due to very few elderly people having incomes of this level. Similarly, the relatively large effects of child-contingent benefits in the second and third decile groups in some countries and in the middle groups in others is due partly to a concentration of children with income at these levels (Figure 12).

Fig. 12 Share of children (0-17) and elderly (65+) by decile group



Source: EUROMOD

Fig. 13 Net benefit payments per child as a % of per capita disposable income 2003 (2001) by decile group



Source: EUROMOD

The scale of net benefit payments per child at each point in the income distribution is shown in Figure13, which is equivalent to Figure 11 but which indicates the average payment per child rather than the average payment per person and which takes explicit account of the fact that children are not uniformly distributed across the income distribution, In most countries, the basic shape of the curves indicates that children in lower income households receive more support than children in higher income households. This is especially the case in Denmark and the UK (except in the bottom decile) as well as in Belgium, Finland, Ireland and Sweden, though markedly so. In Germany and the Netherlands, payment is particularly large for those on low incomes but then is fairly uniform in relation to income. It is also fairly uniform, although at a different level in Austria, while the relationship of payment to income is irregular in France, Italy, Luxembourg, Portugal and Spain and payments favour children in better off households in Greece, partly due to child-contingent tax concessions. As seen above, there is no particular relationship between the scale of benefits which are contingent on the presence of children and that of benefits which are not contingent. This is also the case across the income distribution. For example, in Belgium, the size of child-contingent benefits is fairly uniform across household income deciles and it is the relative size of non-child contingent payments that is responsible for the pro-poor nature of the distribution of total benefits. At the same time, tax concessions for children seem to favour middle income households. Something similar seems to apply in Finland, although the effect of taxes is fairly uniform, as well as in the Netherlands although the taxes –which in fact are social contributions paid on benefits – have a larger effect on low incomes.

In the UK, both child contingent benefits and other benefits are largest for children with low incomes and the same applies in Ireland and Germany. In Denmark non child-contingent benefits, net of the significant taxes paid on them, are most important for children in the second, third and fourth deciles and child-contingent benefits accentuate this distributional effect. However, as shown in Figure 12, there are relatively few children in the second decile, suggesting perhaps that those concerned may live households with particular characteristics that attract high levels of benefit. Sweden is similar to Belgium in that the pro-poor nature of total gross payments is due to non-child contingent benefits. However, taxes on both types of benefit are relatively high in all decile groups.

In France, child-contingent benefit payments are less per child at high incomes but this is balanced by large child-contingent tax concessions which to some extent balance the effect. A similar effect is evident in Luxembourg, although here the tax concessions compensate for a falling average value of non child-contingent benefits as incomes rise.

The four Southern countries have relatively undeveloped systems of child contingent-benefits and in some cases have child tax concessions which tend to favour children in higher income

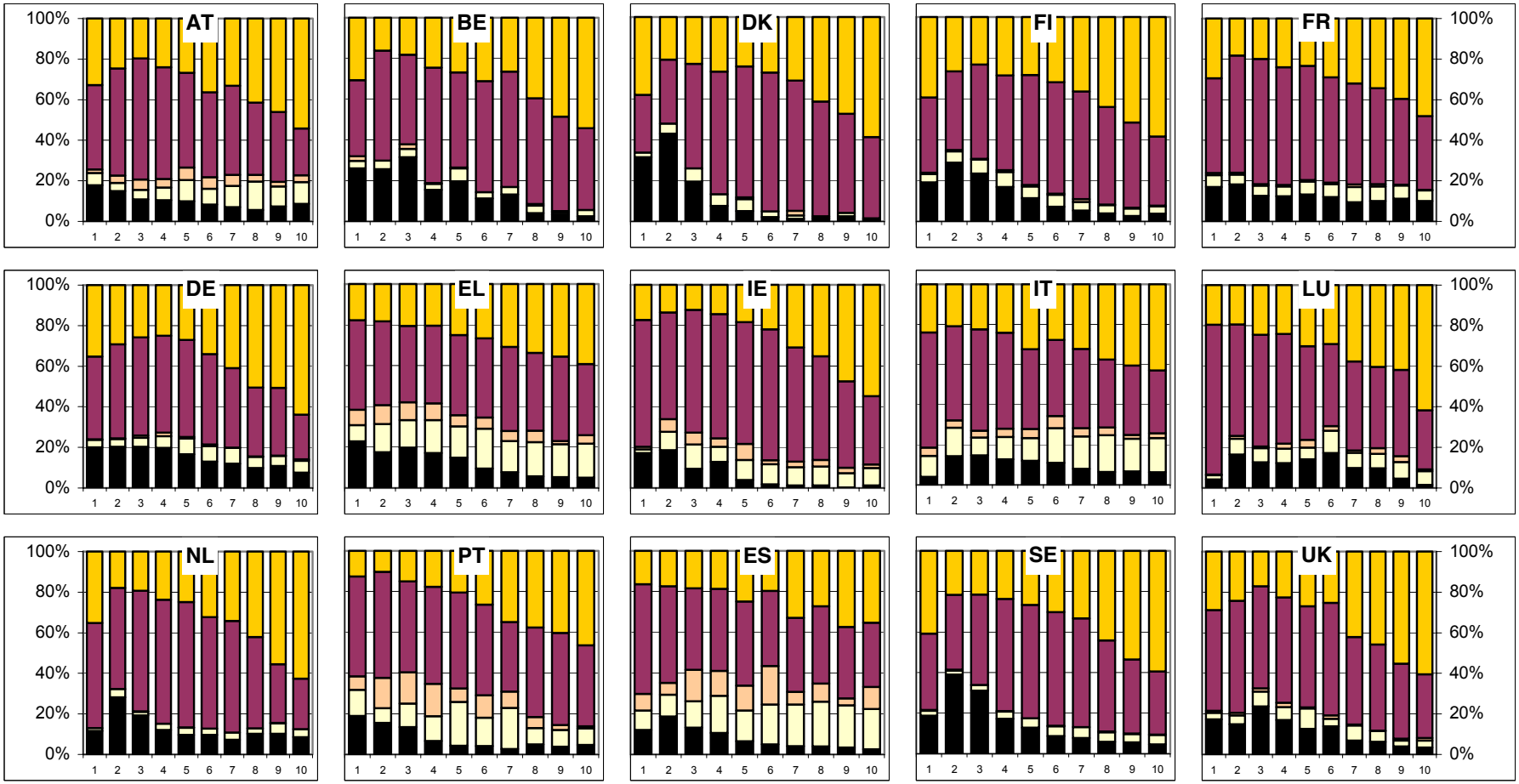
households more. Support through non-contingent benefits has no clear pattern across the income distribution, which could partly be due to the presence of other adults, grandparents in particular, in the households contributing benefit income. However, there is no clear correspondence between the deciles with relatively high levels of non child-contingent benefit income in Figure 13 and those with a relatively large number of three-generation households in Figure 14.

Turning to the elderly, the net effect of pensions paid to the elderly can be isolated from other benefits –the latter paid either to the elderly themselves in the form of other benefits such as disability or housing benefits or to other household members. The average payment per elderly person less the taxes paid on benefits is shown for those in each decile in Figure 15 In most countries, the total gross payment rises with household income. The increase is particularly steep at the top of the distribution in Austria, Portugal and France. There is also a clear pro-rich pattern in Belgium, Finland, Germany, Greece, Italy, Luxembourg and Spain as well as in Sweden, though with a shallower gradient. Taxes claw back some of the payment at higher incomes in most of these countries, although the effect is small in Germany and concentrated right at the top of the distribution in Portugal and France.

In Finland and Sweden the net payment is slightly smaller for those in the top decile than the next one down and in Germany the payment is on average the same in the top two decile groups. In the UK and the Netherlands, benefit payments are fairly uniform effect across all decile groups, which is also the case for the bottom 60% of the distribution in Denmark, where there are few elderly with incomes above this level (so the average payments shown for high income households are based on very few observations).

Most of benefit payments to households with elderly people consist of pensions and other benefits play a substantial role only in Austria, Belgium, Denmark and the UK. In France, Greece, Luxembourg and Portugal, any significant effect of these is limited mainly to the top rather than the bottom of the income distribution.

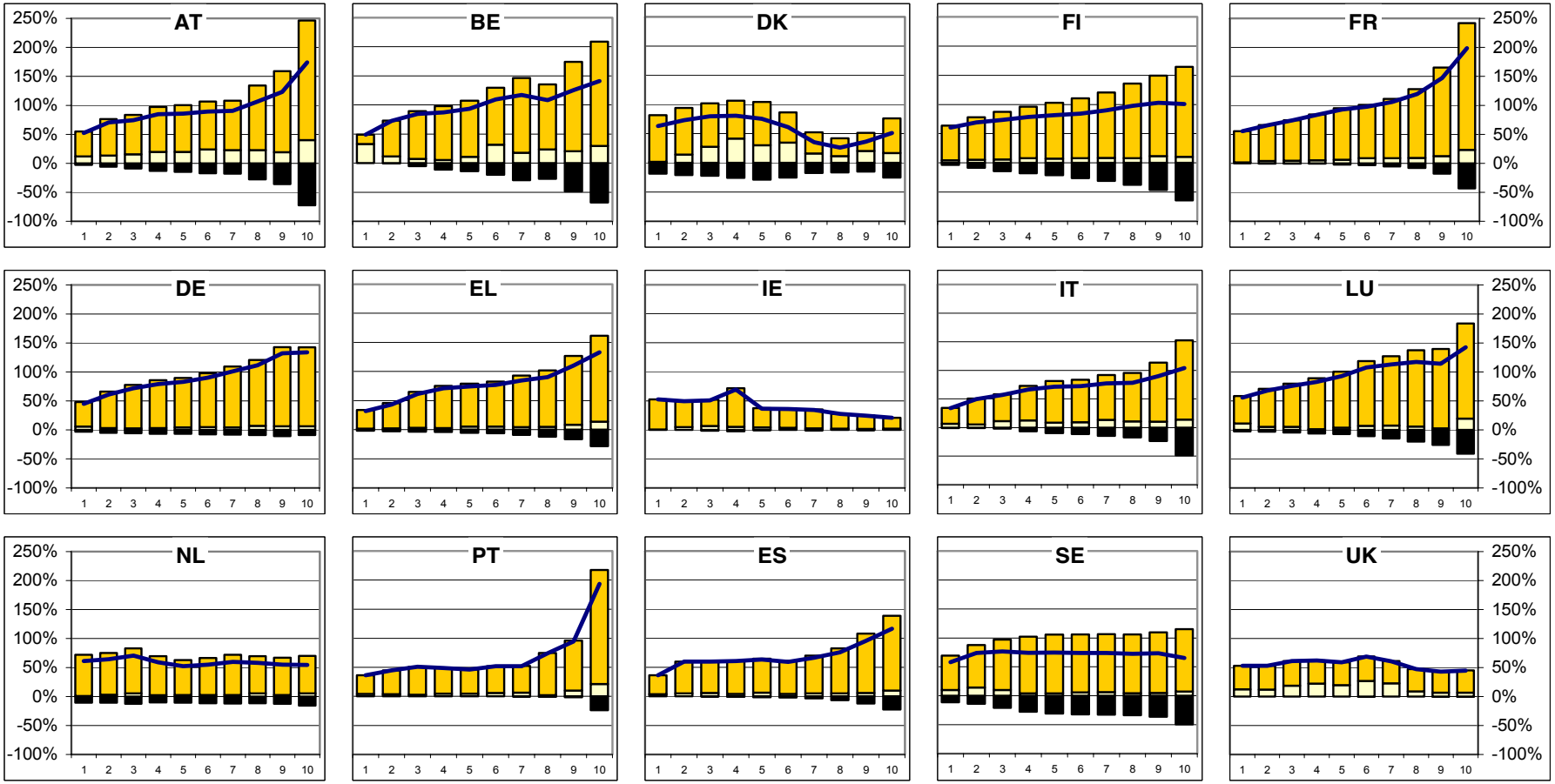
Fig. 14 Share of people by household composition and decile group



■ Elderly only □ Elderly, no children ■ Elderly and children ■ Children, no elderly ■ No children, no elderly

Source: EUROMOD

Fig. 15 Net benefit payments per elderly person as a % of per capita disposable income 2003 (2001) by decile group



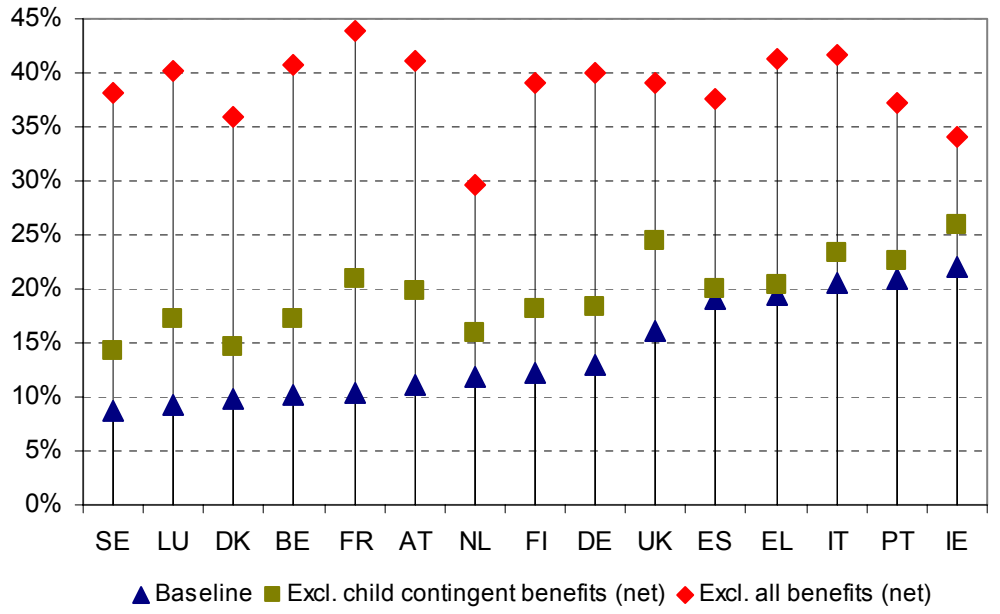
Source: EUROMOD

NET BENEFITS AND REDUCTION IN THE RISK OF POVERTY

The above analysis indicates that, in most countries, benefit and pension payments tend to be larger for elderly people living in higher income households and that the reverse is the case for children. It also indicated that average payments vary widely and that benefits in pensioner households tend to be much larger than benefits in households with children. The concern here is with the extent to which benefits reduce the risk of poverty for these two groups as well as for the population as a whole in different countries.

Figure 16 shows countries ranked in terms of the EUROMOD estimates of the risk of poverty for the population as a whole, using the standard equivalised household disposable income measure (indicated by the blue markers)[40]. The risk of poverty ranges from around 9% in Sweden to 22% in Ireland. The green markers show how much higher poverty would be if there were no child contingent benefits and the red marker shows the risk of poverty rate without any benefits being received by households.

Fig. 16 Risk of poverty rates based on equivalised household disposable income: without child contingent benefits and without all benefits, 2003 (2001)



Source: EUROMOD

It should be emphasised that these figures show the impact of benefits net of taxes, which is the appropriate measure to use since the risk of poverty is measured in relation to disposable

[40] In practice, poverty rates calculated using EUROMOD tend to be either much the same or lower than those from EU-SILC, the main exception is Ireland, where it is higher (22% as against 20% according to SILC).

income – i.e. net of direct taxes.[41] They are calculated assuming a fixed poverty line. For the population as a whole, net benefits (plus tax concessions for children) on average reduce the poverty risk from 30-45% to 10-20%, depending on the country. Child-contingent benefits alone reduce the risk by around 5- 10 percentage points, except in Spain, Greece and Portugal where their effect is much smaller. The effect of net benefits in aggregate in reducing the risk of poverty is inversely correlated with the risk after taking account of their effect. In other words, countries with the lowest risk have benefit systems that achieve most in terms of poverty reduction. The highest proportional reduction is achieved in Sweden, Luxembourg, France and Belgium with the reduction in Austria, Denmark, Finland and Germany all being more than in the EU15 as a whole (62%).

Public support, therefore, plays an important role in reducing the risk of child poverty even if most children live in households with above poverty-levels of original income. Figure 17 shows countries ranked by the risk of poverty rate for children in terms of disposable income including all cash benefits. Denmark has the lowest rate at 6% and Portugal the highest at 28%. Without net child contingent benefits and tax concessions, child poverty would be much higher in all countries except Spain and Greece, where such payments are minimal and not targeted on low income households (as shown by the green markers). Payments are also relatively small in Portugal, while child-contingent payments reduce the poverty risk most in absolute terms in France, Austria and the UK. The proportional reduction in child poverty risk is more than 60% in the countries with the four lowest rates – Denmark, Sweden, Belgium and, most especially, France.

In many countries, the additional effect of other benefits in reducing the poverty risk (shown by the red marker) is relatively small. It is less than 30% of the total effect in Belgium, France, Finland, Austria, the Netherlands, Luxembourg, Germany and the UK. However, in Denmark and Sweden, the effect of non child-contingent benefits is on much the same scale as that of child contingent benefits while in the Southern countries except Italy, non child-contingent benefits have the main effect, although it is modest in size.

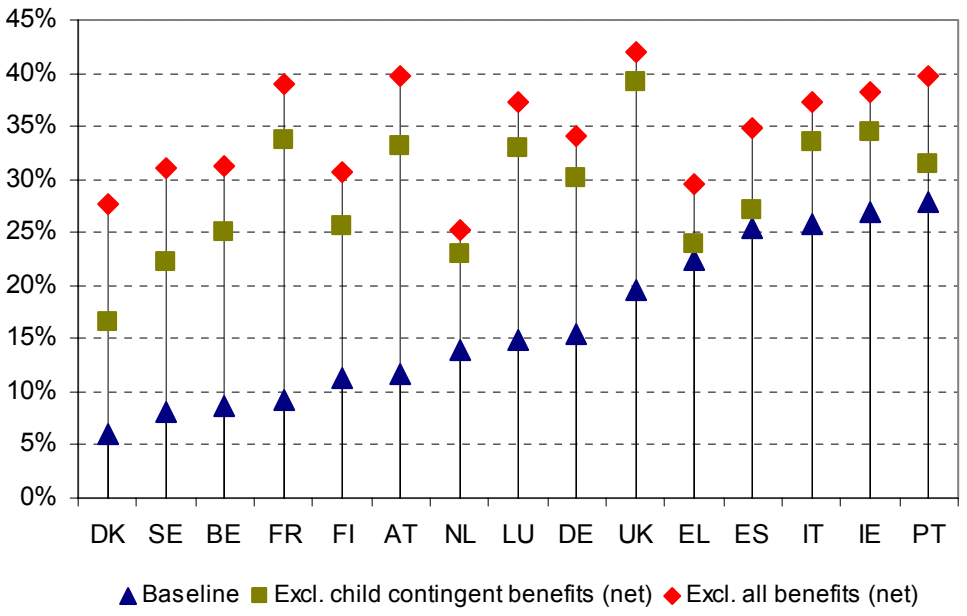
Finally, the risk of poverty among those aged 65 and over is considered. Figure 18 shows the countries ranked according to the EUROMOD estimates of this risk(indicated by the blue markers).[42] The risk is lowest in Luxembourg at 3% and highest in Ireland at 43%. The green markers show how much higher poverty would be if there were no pension benefits and the red

[41] It is assumed that pension benefits and all benefits respectively represent the top slice of the tax base (i.e. subject to the marginal tax rate).

[42] As for children, estimates of the risk of poverty for this group differs in a number of cases from those derived from the EU-SILC and shown elsewhere is this report.

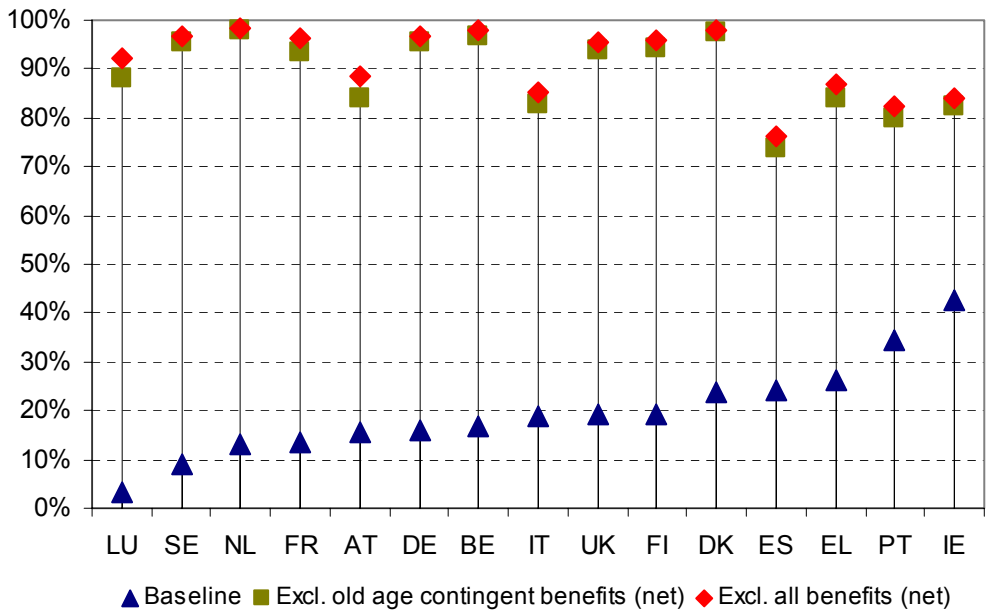
marker shows the risk of poverty rate without any benefits being received by with elderly people.

Fig. 17 Risk of poverty rates for children based on equivalised household disposable income: without child contingent benefits and without all benefits, 2003 (2001)



Source: EUROMOD

Fig. 18 Risk of poverty rates for the elderly based on equivalised household disposable income: without old age contingent benefits and without all benefits, 2003 (2001)



Source: EUROMOD

Not surprisingly, the risk of poverty among those aged 65 and over would be extremely high in all countries without public pensions and other benefits paid to them. However, the presence of private pensions and other market incomes prevent risk of poverty rates reaching 100% in any country and these, combined with the (assumed) sharing of incomes with other household members, would leave at least 10% of the elderly above the poverty in Portugal, Spain, Greece, Italy, Austria and Ireland.

The reduction of the risk of poverty (keeping the poverty line constant) is correlated with the amount of benefits: countries with higher net benefit payments (Figure 7) are those in which the reduction of poverty is higher (Figure 16). The distribution of benefits, which as noted above varies markedly between countries, has, therefore, comparatively little effect on the extent to which the risk of poverty is reduced. Two of the countries (France and Austria) that show the biggest reduction in the risk of poverty have benefits which vary positively with income, others have an inverse U-shaped distribution of benefits with the poorest individuals not receiving the largest share of benefits.

The same is the case in respect of the effect of child-contingent benefits in reducing the risk of poverty for children. This is largest in countries (France, Austria, Luxemburg, the UK and Belgium) with higher child-contingent benefits per child (Figure 8). However only in France and the UK do the poorest individuals receive the largest shares of benefits (Figure 13).

The role played by old-age contingent benefits is slightly different. On the one hand, when the amount received is relatively large as in France, Luxemburg and Germany (Figure 9) the reduction of poverty rates is also large even if expenditure goes disproportionately to the rich (Figure 15). On the other hand, there are countries where the reduction in the risk of poverty among the elderly is relatively large (Sweden and the Netherlands) where benefit payments per elderly person are much lower (Figure 9) but equally distributed across income deciles and with the proportion of net benefits received by the poorest among the elderly larger than elsewhere (Figure 15).

CONCLUDING REMARKS

The above analysis has used the EUROMOD microsimulation model to assess the effect of taxes and benefits on household disposable income, given the composition of households, as well as on the risk of poverty, focusing in particular on children and the elderly. The main findings are as follows:

- EU-15 countries differ in terms not only of the average scale of net benefits but also in their relative importance across the income distribution. Support delivered through taxes tends

to favour the better off most, while that delivered through means-tested benefits tends to be concentrated on lower income households.

- The effect of public support, in terms of income redistribution and reducing the risk of poverty, depends on the composition of households The proportion of the population living in households with children exceeds 50% in only five countries, while three-generation households are relatively important only in a few Southern countries,
- The support to children is mainly channelled through child-contingent benefits in all EU-15 Member States with the exception of the Southern countries, where the level of support is lowest, along with the Netherlands. In general, there is no systematic relationship between the size of child-contingent benefits and that of other benefits. In most countries, children in lower income households receive more support than those in richer households; this is particularly true in Denmark and in the UK. Countries in which the relative amounts received for each child is relatively larger are also those in which net spending per child has a stronger pro-poor effect.
- In the Southern countries, the absence of generous child benefits is combined with child tax concessions which tend to benefit children in higher income households most.
- Net benefit payments per elderly person are much more generous than those for children. In most countries, net payments have a pro-rich pattern, especially in Austria, Portugal and France. In the UK, the Netherland and Ireland, where private pensions substitute for public payments, especially at higher levels of income, benefits have a relatively uniform effect across the income distribution.
- Net benefit payments per elderly person are affected by progressive taxes in most of the countries that attenuate the pro-rich pattern of gross payments. The effect of taxes is small and equally distributed across income groups in Germany and not significant in Ireland and the UK.
- The reduction in the risk of poverty as a result of net benefit payments (and tax concession for children) is largest in countries which end up with the lowest risk in terms of disposable income. Countries with the lowest risk (Sweden, Luxemburg, France and Belgium), in other words, have benefit systems that achieve most in terms of poverty reduction. Public support plays an important role in reducing the risk of poverty among children in all countries except Spain, Greece and Portugal. Not surprisingly, the risk of poverty among the elderly in retirement would be extremely high in all countries without old-age contingent benefits.
- The reduction in the risk of poverty for both children and the population as a whole is positively correlated with the amount of benefit payments and less with their distribution across income groups. This is less the case as regards old-age contingent benefits. Sweden

and the Netherlands, where pensions are for the most part flat rate and net, benefits more equally distributed across income distribution than elsewhere, show a relatively large reduction in the risk of poverty among the elderly.

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EUROMOD Working Papers available from:
http://www.iser.essex.ac.uk/msu/emod/workingpapers/

APPENDIX 1: EUROMOD[43]

EUROMOD is a static tax-benefit microsimulation model currently covering all 15 pre-2004 Member States of the European Union. It is at present being extended to cover four more Member States. The model calculates cash benefit entitlements and direct tax and social insurance contribution liabilities on the basis of the tax-benefit rules in place.

The datasets that are used in the current version of EUROMOD are shown in the table below. The choice of dataset is based on judgement of the national EUROMOD experts of the most suitable dataset available for scientific research. In most cases the input datasets of household circumstances refer to a period a few years prior to this and the original incomes derived from them are updated to this date. This process relies on indexing each income component (which is not simulated) by appropriate growth factors, based on actual changes over the relevant period.[44] In general no adjustment is made for changes in population composition.

EUROMOD base datasets (version D1)

Country	Dataset	Date of collection
Austria	Austrian version of EU-SILC	2004
Belgium	Panel Survey on Belgian Households	2002
Denmark	European Community Household Panel	1995
Finland	Income distribution survey	2001
France	Budget de Famille (HBS)	2000/1
Germany	German Socio-Economic Panel	2002
Greece	Household Budget Survey	2004/5
Ireland	Living in Ireland Survey	1994
Italy	Survey of Households Income and Wealth	1996
Luxembourg	PSELL-2	2001
Netherlands	Sociaal-economisch panelonderzoek	2000
Portugal	European Community Household Panel	2001
Spain	European Community Household Panel	2000
Sweden	Income distribution survey	2001
UK	Family Expenditure Survey (HBS)	2000/1

[43] See Immervoll et al. (1999) and Sutherland (2007) for general descriptions. Sutherland (2001 and 2005) provides descriptions and discussions of technical issues. The version of EUROMOD used in this paper is D1.

[44] This process is documented in EUROMOD Country Reports. See: http://www.iser.essex.ac.uk/msu/emod/documentation/countries/

Children are defined as individuals younger than 18 years and the elderly as people aged 65 or more. It is generally assumed that income is shared within the household and the modified OECD scale is used to equivalise the income of individuals when comparing across households.

Household disposable income is defined as the original income of each household member plus between-household transfers (maintenance and alimony), minus taxes (income tax, social contributions and other direct personal taxes) plus cash social benefits. These, unless otherwise stated, include public pensions in payment but do not include regulated private pensions that may substitute for these. Non-monetary benefits are not included. Gross incomes are defined as original incomes plus social benefits.

Risk-of-poverty is defined as equivalised disposable income of below 60% of the national median.

The model does not take account of any non-take up of benefits or tax avoidance or evasion. It is assumed, therefore, that the legal rules are universally respected and that the costs of compliance are zero. This can result in the over-estimation of taxes and benefits.[45]

[45] It can also result in the under-estimation of poverty rates although this depends on the relationship between the level of income provided by benefits and the poverty line (potential claimants may be poor whether or not they receive the benefits to which they are entitled). For a comparison of poverty rates estimated using simulated incomes from EUROMOD with those calculated directly from survey data by the OECD or available through the Luxembourg Income Study, see Corak, Lietz and Sutherland (2005).

APPENDIX 2: DEFINITIONS OF PUBLIC PENSIONS USED IN EUROMOD, BY COUNTRY

AUSTRIA

minimum pension (ausgleichszulage)

minimum pension for civil servants (ergaenzungszulage)

civil servant's pension (ruhebezuege)

early retirement pension (vorzeitige alterspension)

old age pension (alterspension)

other old age related schemes or benefits

survivor pension (witwen- u. waisenpension)

BELGIUM

other public pension income

retirement pension (pension de retraite)

survivor pension (pension de survie)

DENMARK

old age pension

supplementary pension

survivor pension

FINLAND

gross state pension income

national (basic) pension increases

FRANCE

minimum old age pension (minimum vieillesse)

pension benefits

alimony (pension de reversion)

pre-retirement pension

war pension

GERMANY

own old age pension

miners' own pension

civil servants' own pension

farmers' own pension

widow/orphan old-age pension

miners' widow/orphan pension

civil servants' widow/orphan pension

farmers' widow/orphan pension

war victims' widow/orphan pension

war victims' own pension

GREECE

old age pension

orphans' pension

widows' benefits

OGA Old Age Pension

Social Pension

EKAS Social Solidarity Benefit

IRELAND

Deserted Wives Non-Contributory Benefits

Deserted Wife Contributory Benefits

Old Age Non-Contributory Benefits

Old Age Contributory Benefits

Orphan's Contributory Benefits

Retirement Contributory Benefits

Survivor's Contributory Benefits

Widow's Non-Contributory Benefits

ITALY

supplementary pension

excluding supp. pension: inps (national institute of social insurance): old age, retirement pension

excluding supp. pension: inps: widow's pension

excluding supp. pension: ipat (institute of treasury-managed insurance): old age, retirement pension

excluding supp. pension: ipat: widow's pension

excluding supp. pension: state: old age, retirement pension

other pension

foreign pension

state widow's pension

social pension

war pension

LUXEMBOURG

pension received from employment in private sector

pension received from employment in public sector

private sector reversion pension

public sector reversion pension

Orphan Allowance

NETHERLANDS

state pension

survivors' benefit (anw) (formerly widow benefit)

PORTUGAL

old-age insurance

survivors related benefits

old-age social pension

SPAIN

old age pension supplement

widow pension supplement

old-age (insurance an early retirement)

survivors (widows or orphans, insurance)

SWEDEN

other taxable pensions

non-taxable pension

UK

retirement pension

state earnings related pension (serps)

widow benefit

CHAPTER 7 — THE EFFECT OF CHANGES IN TAXES AND BENEFITS ON INCOME DISTRIBUTION IN SELECTED MEMBER STATES

INTRODUCTION

The aim of this chapter is to build up a better understanding of the role of government tax and benefit measures on inequality and poverty. In the first part, changes in income distribution are decomposed between the effect due to tax-benefit policy changes and that due to other sources of change (like demographic trends or the underlying distribution of market income). The decomposition is based on counterfactual microsimulation and focuses on France and Ireland in the second half of the 1990s. The second part reports in more simple terms the absolute effect of policy changes in taxes and benefits changes on inequality and the risk of poverty between 1998 and 2003 in 9 European countries using the EUROMOD microsimulation model. These effects are then compared with the actual changes in income distribution based on other sources.

The third part examines the extent to which similar measures have different effects because of: (i) the different way they interact with other features of the tax-benefit system and (ii) underlying differences in household composition and/or in the distribution of market income. This focuses on changes in personal income tax in different countries, showing, first, that the redistributive effect of such changes differs due to different settings (e.g. differences in the tax base) or due to differences indicated under points (i) and (ii) above. Accordingly, the reduction in income tax which occurred in several European countries in the recent past potentially had very different effects in different countries. In addition, the effect of all countries adopting a flat tax system is examined, which again appears to have very contrasting effects across European countries.

RELATIVE EFFECTS OF TAX-BENEFIT POLICY CHANGES ON INCOME DISTRIBUTION: FRANCE AND IRELAND

Methodology and data

The approach adopted here follows that suggested in Bargain and Callan (2007) and is based on microsimulation counterfactuals (cf. Atkinson, 1995). The change in income distribution

between year 0 and year 1 (as summarised by any measure of poverty or inequality) is decomposed into the effect of the tax-benefit policy changes occurring over the period (the policy effect) and the effect of all other changes, including changes in the inequality of pre-tax income, the structure of population and so on (the data effect). Two alternative methods of decomposition are possible depending on whether the policy effect is estimated on the basis of the initial or end year:

- Decomposition I: the data effect is assessed conditional on the tax-benefit system prevailing in year 0; the policy effect is assessed conditional on the data of year 1
- Decomposition II: the policy effect is assessed conditional on the data of year 0; the data effect is assessed conditional on the tax-benefit systems prevailing in year 1.

The policy effect combines changes in the structure of the tax-benefit systems (all rules, tax rates, taper rates on benefits and so on) and changes in tax-benefit monetary parameters (tax bands, welfare payment levels, etc.). In Decomposition I, the move from tax-benefit system 0 to system 1 conditional on year 1 data requires that system 0 be consistent with year 1 data in terms of nominal levels (for instance, keeping tax bands of year 0 with the higher income of year 1 would generate fiscal drag and bias the result). Tax-benefit monetary parameters of system 0 need, therefore, to be uprated, which is done by using average nominal income growth between years 0 and 1 (see Callan et al., 2006). In the same way, Decomposition II is estimated on the data of year 0 but assessing the actual change in tax bands or welfare payments would be incorrect if applied to nominal levels of year 0. All income variables of year 0 are, therefore, uprated using average nominal income growth as we shift from tax-benefit system 0 to system 1.

This methodology is applied to Ireland for the period 1994-2000 and France for the period 1995-2001, using a battery of poverty and inequality measures and assessing the sensitivity of the results to the method of decomposition. For this purpose, the French systems for 1995 and 2001 are simulated using the SYSIFF microsimulation model (described in Bargain and Terraz, 2001, which is based on the 1995 and 2001 Household Budget Surveys made available by INSEE). Simulations of the Irish system for 1994 and 2000 are based on the SWITCH model (described in Callan et al., 1996 which is based on the 1994 and 2000 Living in Ireland Surveys, made available by the Economic and Social Research Institute). The coefficients used to nominally adjust gross incomes and tax-benefit parameters – the growth in average gross income between the initial and final years – are 14.2% for France and 36.1% for Ireland.

Results

Results are presented in Table 1. Inequality, as measured by the Gini coefficient and the Atkinson index (ϵ=0.5) declined slightly in France (by between 2% and 4.5%). In Ireland, there was a somewhat larger fall (between 4% and 8%)[46].

Table 1: Changes in Income Distribution: Decomposition between policy effects and other factors

				Decomposition I		Decomposition II	
	Period 0	Period 1	Total change	tax-benefit policy effect	Other effects	tax-benefit policy effect	Other effects
Ireland 1994-2000							
Gini (%)	29.0	27.7	-1.3	0.7	-2.0	1.4	-2.7
Atkinson 0.5	6.7	6.2	-0.5	0.3	-0.8	0.7	-1.2
Atkinson 1.5	18.3	20.6	2.3	1.0	1.3	2.0	0.3
P90/P10	3.5	3.8	0.2	0.3	-0.1	0.5	-0.3
P90/P50	2.0	1.9	-0.2	0.0	-0.2	0.0	-0.2
P50/P10	1.7	2.0	0.3	0.2	0.1	0.3	0.0
FGT0(%)	13.4	19.8	6.4	2.8	3.6	6.0	0.5
FGT1(%)	1.5	4.4	2.9	1.3	1.6	1.7	1.2
FGT2(%)	0.4	1.5	1.1	0.5	0.7	0.4	0.7
France 1995-2001							
Gini (%)	29.9	29.2	-0.7	-0.6	0.0	-0.5	-0.1
Atkinson 0.5	7.4	7.2	-0.2	-0.3	0.1	-0.2	0.1
Atkinson 1.5	20.9	19.8	-1.2	-0.7	-0.3	-0.5	-0.6
P90/P10	3.5	3.4	-0.2	-0.1	0.0	-0.1	0.0
P90/P50	2.0	2.0	0.0	0.0	0.0	0.0	0.0
P50/P10	1.8	1.7	-0.1	0.0	-0.1	-0.1	0.0
FGT0(%)	13.3	12.7	-0.6	-1.5	1.0	-1.0	0.5
FGT1(%)	2.8	2.4	-0.4	-0.4	0.0	-0.2	-0.1
FGT2(%)	1.0	0.9	-0.1	-0.1	0.0	-0.1	-0.1

The tax-benefit policy effect is measured on the basis of data at period 0 (resp. 1) in decomposition I (resp. II). Income is equivalised using the modified OECD scale. Poverty lines are fixed at 60% of the median.

The two countries diverge when higher aversion to inequality is assumed, the Atkinson index (ϵ=1.5) increasing in Ireland and declining in France. This reflects the greater uniformity of income growth in France, while the reduction in inequality reduction occurred mostly within the

[46]The simulated Gini for France is close to the measure obtained using the ECHP. It is however overstated compared to measures using the tax revenue data (INSEE-DGI, Enquete Revenus Fiscaux, 1996), giving a Gini around 0.27. For Ireland, a Gini of 0.29 in the initial period is lower than measures from the ECHP (0.32) and from the raw data in the Living in Ireland Survey (0.33), probably reflecting the extent of unclaimed benefit in the actual data. Trends observed in Table 3.1 are nonetheless confirmed by these other sources. See also discussions in Mantovani and Sutherland (2003).

upper half of the income distribution in Ireland, which is confirmed by the decline in the ratio of higher incomes to the median while the gap between upper and lower incomes widened. In addition, the headcount ratio with the poverty line set at 60% of the median fell slightly in France but rose by around 50% in Ireland.

What is the relative effect of tax-benefit policy and of other factors on these developments? In France, policy changes explain most of the change in inequality and the measure of relative poverty irrespective of which method of decomposition is used. Other factors play a minor role, often not a significant one, or have a different sign depending on the index under consideration. In particular, they contribute to an increase in the headcount ratio with a poverty line at 60% of the median but to a decline with the line set at 50% of the median (not shown in the table) and in the Atkinson index with $\epsilon=1.5$.

There was little change in policy in the late-1990s and welfare payment rates were raised only after 1997 to catch up with average income (the most noticeable increase concerning unemployment assistance, *Allocation de Solidarité Spécifique*, in 1998). It seems that the trend captured in the results stems instead from structural changes in the years 2000-2001, and in particular from the reform of housing benefits and the introduction of a modest refundable tax credit for people on low wages, two measures that primarily benefited those in the bottom part of the income distribution (see CERC, 2006).

Apart from tax-benefit policy, important factors were the economic recovery during the 1997-2001 period and declining unemployment (down from 11.3% in 1995 to 8.8% in 2001). Recent growth has taken some time to trickle down to affect poverty levels (see the detailed analyses in CERC 2006 and Demailly and Raynaud, 2006). The number of people on welfare (`RMI' recipients) continued to climb until 1999 then fell from 1.12 million in 1999 to 1.05 in 2001. Moreover, wage moderation accompanied the implementation of the new legislation on reduced working time in 2001.

While Decompositions I and II lead to similar conclusions for France, results seem more sensitive to the method for Ireland. This is primarily due to the fact that effects are much larger in the latter, following the dramatic change in the economy in the late 1990s and the very large fall in unemployment (from 15% to 5% over the period). Nevertheless, some key results emerge irrespective of the decomposition method used. The Gini and Atkinson indices, along with the percentile ratios P90/P10 and P50/P10, confirm that the direct influence of policy changes over the period was to increase inequality while other factors tended to reduce it. Both policy changes and other effects contributed to increasing the headcount, poverty gap ratio and

weighted poverty gap ratio with the poverty line set at 60% of the median as well as the Atkinson index with high inequality aversion.

So far as policy changes are concerned, income tax cuts clearly reduced the progressivity of the system and contributed to widening the gap between the upper half of the distribution and the lower half as indicated by the percentile ratios. In addition, welfare payment rates failed to keep pace with the growth in income from employment so that the relative position of the poorest worsened in the second half of the 1990s, as reflected in the change in relative poverty rates[47].

As for other factors, not directly related to taxes and benefits, the sharp fall in unemployment seems to have had the effect of reducing most of the inequality measures. There is less sign of the widening in the dispersion of earnings which accompanied the rapid economic growth in the 1990s. As noted by Nolan and Maitre (2000), this trend was primarily driven by relatively rapid increases for those at the very top of the distribution, which is not captured by the P90 percentile reported here. According to Nolan and Maitre, there was no indication that those at the bottom of the income distribution have been falling behind the median, as confirmed here by the P50/P10 ratio remaining broadly unchanged for 'other effects'. When the focus is on the poorest, however, the effect of these other factors was to raise the relative poverty rates (and the Atkinson index with ϵ=1.5). (Instances where falling unemployment were associated with a rise in the risk of poverty have also been found in Immervoll et al., 2005.)

To summarise, policy changes appear to have had some effect on income distribution in both countries over the late 1990s. In France, policy effects tended to equalise incomes and reduce relative poverty. In Ireland, the opposite is the case, overall inequality declining because of other factors, including changes in the distribution of gross income as unemployment fell sharply. In France, policy changes were the main driving force behind the change in inequality over this period.

The results show the value of assessing policy reforms in conjunction with structural changes if their influence on inequality is to be understood and measured satisfactorily. The aim of the analysis for these two countries was primarily to illustrate the approach which should be adopted in this regard. Further research needs to focus on two aspects in particular. First, a more detailed analysis of policy effects would require the use of more regular (ideally, annual) data in order to assess more precisely the role of punctual reforms, as undertaken, for instance, in Clark and Leicester (2004). Secondly, results are potentially sensitive to the method of

[47]Nolan and Maitre (2000) show that the share of social transfers declined substantially in the period 1994-1997, confirming that social welfare support rates lagged behind the very rapid pace of growth in earnings.

decomposition used, i.e. either based on the initial or the final year. This is not the case for France, where overall effects are small, but some differences are evident for Ireland and deserve further investigation. In particular, the regressive effect of recent policy changes appears larger in absolute terms when estimated on the basis of the more equal distribution of gross income of the final year than the initial year (i.e. when using decomposition II).

EFFECTS OF RECENT TAX–BENEFIT POLICY CHANGES IN 9 EUROPEAN COUNTRIES

Methodology and data

The concern in this section is to simulate the absolute effect of changes in taxes and benefits on income distribution over the period 1998–2003 in 9 European countries. 'Absolute effects' is used in this context to signify that it is not possible to quantify the relative contribution of policy reforms to the overall change in income distribution as compared with other factors. To do so would require data for both the initial and the final years of the period, as in the case of France and Ireland in the previous Section. The assessment here, therefore, assumes that all other factors apart from tax–benefit policies are held constant. Nonetheless, assessing the direction of policy effects at national level is an interesting exercise. It is particularly relevant with respect to the EU's Lisbon agenda and attempts at understanding how Member States are pursuing the Lisbon objectives in the light of the Laeken social indicators (Atkinson et al., 2002).

To do so, policy changes are simulated holding all other factors constant, in particular the underlying structure of population and income (i.e. pre–tax income distribution, household income composition, demographic composition, etc.). This is carried out on the basis of the data for the initial year, so that the policy effect is that indicated by Decomposition II as listed in Section 1 above.

An important aspect, already emphasised in the previous Section, is that applying the new policy system on the initial year data requires nominal adjustment of the tax–benefit parameters (tax bands, welfare payment rates, etc.). The policy system of period 2003 is, therefore, assessed on the basis of data for 1998 where all income variables are uprated using average income growth over the 1998–2003 period (shown in the last column of Table 2).

Table 2: Data description

Country	Data	Collection year	no. of observations (individuals)	no. households (weighted)	uprating factor 1998-2001	uprating factor 1998-2003
Austria	European Community Household Panel	1998	7,386	3,238,520	5.7%	9.0%
Belgium	Panel Survey on Belgium Households	1997	7,057	4,028,723	7.2%	9.7%
Finland	Income Distribution Survey	1998	25,010	2,355,000	7.4%	10.8%
Germany	German Socio-Economic Panel	1998	18,227	38,259,778	4.1%	6.6%
Greece	European Community Household Panel	1995	15,062	3,720,085	15.5%	24.0%
Netherlands	Sociaal-economisch panelonderzoek	1996	11,035	3,238,520	9.7%	15.5%
Portugal	European Community Household Panel	1996	14,468	3,211,572	18.1%	25.5%
Spain	European Community Household Panel	1996	18,991	12,347,454	23.9%	39.0%
UK	Family Expenditure Survey	1995/6	16,586	24,490,138	6.8%	11.3%

Interestingly, this adjustment can be understood from a slightly different perspective. Inequality measures estimated on 1998 data using policy system and parameters for 1998 are (approximately) equal to those estimated on the same data when both income variables and policy parameters are uprated to 2003 (using average income growth)[48]. In consequence, what is performed here, i.e. a shift from the 1998 system (using 1998 data) to the 2003 system (using 1998 data with incomes uprated to 2003), is equivalent to a shift from the 1998 system with 2003-uprated parameters to the actual 2003 system. The exercise, therefore, captures not only the changes in the tax-benefit structure but also the actual adjustment in tax bands and welfare payment decided by government against a scenario where tax-benefit parameters keep pace with income growth over the period.[49] Callan et al. (2006) show that this is a distributionally-neutral benchmark against which the distributional effect of policy changes should be gauged.

Simulations are performed using the EUROMOD microsimulation model, which has been designed to incorporate the features of the tax-benefit systems of all EU-15 countries. For each country, it computes all direct taxes and monetary transfers, and hence disposable income, for all households (see description in Sutherland, 2001). The choice of the initial system of taxes and benefits (1998) and the final system (2003) is dictated by what is available in the latest version of EUROMOD. The choice of country is also guided by the data available to cover a reasonably long period. For the countries chosen – Austria, Belgium, Finland, Germany, Greece, Netherlands, Portugal, Spain and the UK – EUROMOD can simulate policy for 1998, 2001 and 2003 (for the other countries, only for 1998 and 2001).

[48] For a discussion, see Bargain and Callan (2007).

[49] If, for instance, the tax-benefit structure is unchanged over the period but tax bands are not adjusted at the same pace as income growth, some bracket creep will occur for tax payers and inequality may decrease.

The data used in each case are described in Table 2. They should ideally match the initial policy year (1998), but data relate to 1998 only for Austria, Finland and Germany (as well as for France and Ireland). For the other countries, the data relate to the year before in the case of Belgium, to two years before for the Netherlands, Portugal and Spain and to three years before for Greece or the UK. Some adjustments are required in these cases[50].

POLICY EFFECTS ON INCOME DISTRIBUTION

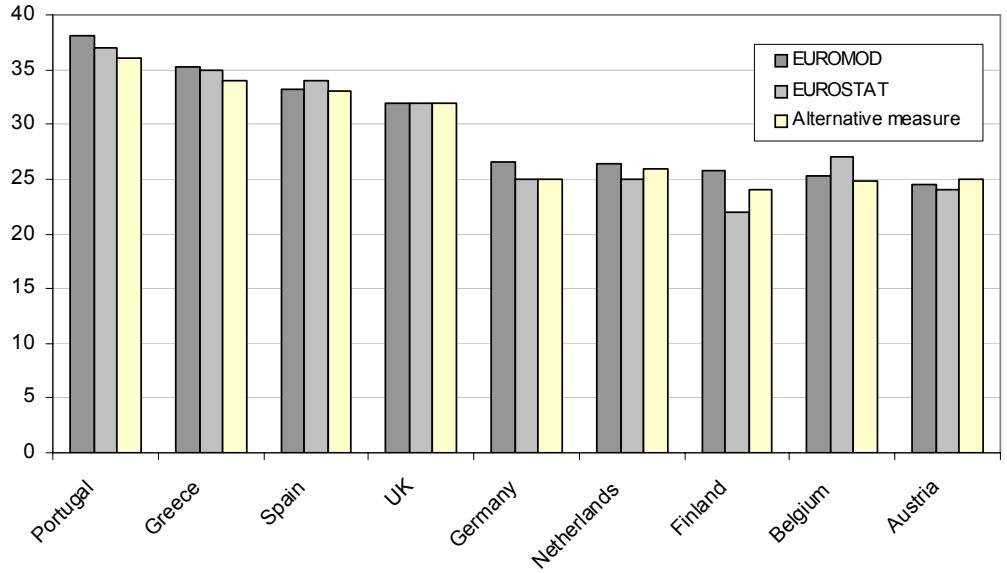
Figures1 and 2 report the Gini coefficients and relative poverty rates for the initial period (1998) as calculated using EUROMOD. These results are broadly in line with estimates based on the ECHP though there are differences for some countries. In particular, EUROMOD tends systematically to understate relative poverty because of the assumption of full take-up of social assistance for countries with minimum income schemes, i.e. the non-Southern countries (this is naturally more pronounced if poverty is defined in terms of 50% of the median). ECHP figures have also been revised in some cases and show differences from the initial estimates (cf. the alternative measures in Figure 2)[51]. These differences should not affect the present analysis, since the concern is with the distributional effect of policy changes – which is captured reasonably well by EUROMOD – more than with the precise degree of inequality or level of poverty.[52]

[50] These consist of uprating monetary variables between the year to which the data relate and 1998; for this purpose, differentiated coefficients are used for different income sources. Possible changes in pre-tax income distribution, income composition and demographic structure between the year to which the data relate and 1998 are ignored. These minor adjustments should not be confused with the uprating of income variables between the initial and final years as previously discussed. The latter is a major adjustment, necessary to ensure consistency in the policy analysis.

[51] For a discussion and extended comparison between EUROMOD and ECHP, see Lietz and Sutherland (2005) and Mantovani and Sutherland (2003).

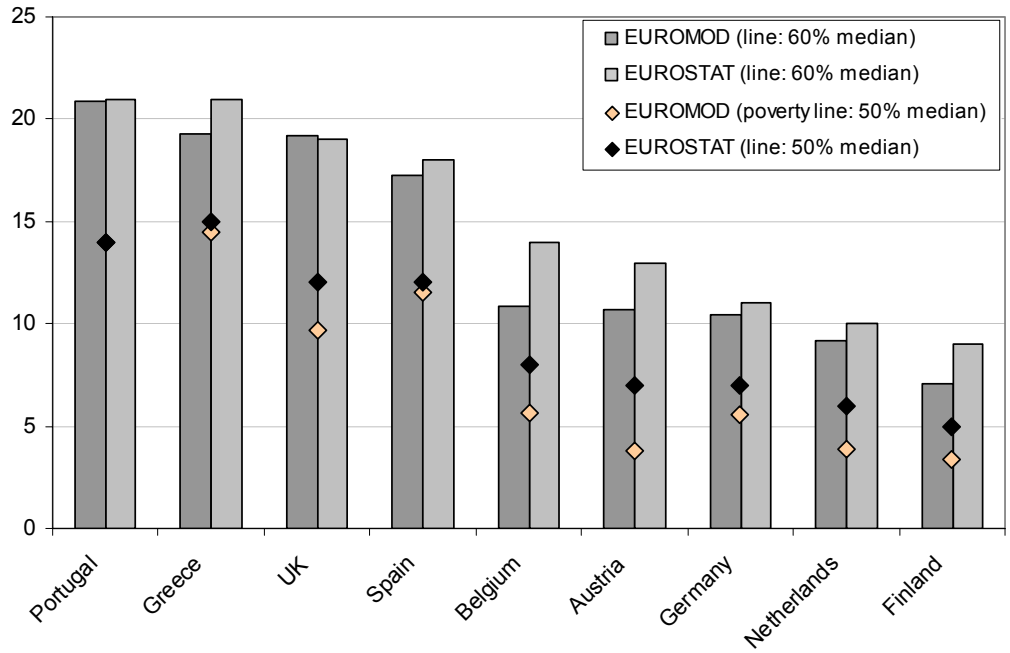
[52] However, the changes in inequality and poverty obtained from EUROMOD are compared with those reported by Eurostat in order to infer the extent to which the 'actual' changes in income distribution are due to policy effects, or, conversely, conflict with them, so suggesting that other factors prevailed.

Fig 1 Gini coefficients in 1998 according to EUROMOD simulations and Eurostat



EUROSTAT figures are based on the ECHP 1998. Except for Finland (Income Distribution Survey 1998, cf Riihelä et al., 2005) and Belgium (Socio-Economic Panel, 1997, K. Orsini), alternative Gini measures are reported from Dennis and Guio (2003), also based on the ECHP 1998 but sometimes different from EUROSTAT figures.

Fig 2 Relative poverty rates in 1998 according to EUROMOD simulations and Eurostat



The results of assessing the effect of the policy changes over the period 1998 to 2003 using the method described above are reported in Tables 3 to 6.

Table 3 Effect of recent policy changes on the Gini coefficient.

Country	1998	2001*	2003*	policy effect 1998-2001	policy effect 1998-2003
Austria	24.5	24.2	23.9	-0.3	-0.6
Belgium	25.3	25.3	25.0	0.0	-0.3
Finland	25.8	26.5	27.0	0.7	1.2
Germany	26.5	26.6	26.5	0.1	0.0
Greece	35.3	34.2	33.4	-1.1	-1.9
Netherlands	26.4	27.5	27.5	1.0	1.0
Portugal	38.1	38.6	38.2	0.5	0.0
Spain	33.1	33.7	33.7	0.5	0.6
UK	31.9	30.7	31.0	-1.1	-0.8

Gini are based on equivalized disposable income using the modified OECD scale (zeros are bottom-coded as 10E-1)
** Disposable incomes for 2001 and 2003 are simulated on the basis of 1998 incomes, nominally adjusted to account for average income growth*

Table 4 Effect of recent policy changes on other inequality indices

Country	P90/P10			Atkinson (e=0.5)			Atkinson (e=1.5)		
	1998	2001*	2003*	1998	2001*	2003*	1998	2001*	2003*
Austria	3.15	3.14	3.10	4.87	4.77	4.65	15.71	15.33	14.92
Belgium	3.01	3.02	2.97	5.94	5.90	6.00	48.01	47.23	49.88
Finland	2.88	3.05	3.15	5.95	6.16	6.32	14.89	15.75	16.33
Germany	3.30	3.40	3.39	5.81	5.84	5.78	17.21	17.20	17.01
Greece	5.97	5.34	5.01	10.39	9.74	9.28	33.75	31.67	29.99
Netherlands	3.06	3.19	3.20	5.92	6.49	6.49	27.70	29.42	30.03
Portugal	5.70	5.95	5.70	11.69	11.95	11.69	29.15	29.98	29.19
Spain	4.39	4.60	4.81	9.03	9.29	9.33	28.52	29.27	29.62
UK	4.12	3.90	3.96	8.12	7.59	7.70	22.79	21.76	22.10

Gini are based on equivalized income using the modified OECD scale (zeros are bottom-coded as 10E-1)
** Disposable incomes for 2001 and 2003 are simulated on the basis of 1998 incomes, nominally adjusted to account for average income growth*

Table 5 Effect of recent policy changes on relative poverty rate (poverty line at 50% of median)

Country	FGT (0)				FGT (1)			FGT (2)		
	1998	2001*	2003*	ECHP 1998	1998	2001*	2003*	1998	2001*	2003*
Austria	3.8	4.0	3.4	6	0.8	0.7	0.6	0.3	0.3	0.2
Belgium	5.6	5.8	7.6	7	1.5	1.4	2.5	0.9	0.8	1.4
Finland	3.4	4.5	5.2	5	0.5	0.7	0.8	0.1	0.2	0.2
Germany	5.6	6.2	6.2	6	1.4	1.4	1.4	0.6	0.6	0.5
Greece	14.5	13.4	12.9	14	5.2	4.5	4.0	2.7	2.2	1.9
Netherlands	3.8	4.0	3.9	6	1.3	1.3	1.4	0.8	0.8	0.9
Portugal	13.9	15.0	14.2	13	2.5	3.0	2.4	0.6	0.8	0.6
Spain	11.6	12.9	12.9	13	3.9	4.1	4.2	2.0	2.1	2.1
UK	9.7	6.7	5.8	11	1.5	1.1	1.0	0.5	0.4	0.4

Gini are based on equivalized income using the modified OECD scale (zeros are bottom-coded as 10E-1). Poverty line is 50% of the median.
** Disposable incomes for 2001 and 2003 are simulated on the basis of 1998 incomes, nominally adjusted to account for average income growth*

Table 6 Effect of recent policy changes on relative poverty rates (poverty line at 60% median)

Country	FGT (0)				FGT (1)			FGT (2)		
	1998	2001*	2003*	ECHP 1998	1998	2001*	2003*	1998	2001*	2003*
Austria	10.7	10.4	9.5	6	1.9	1.8	1.6	0.6	0.6	0.5
Belgium	10.9	11.4	12.2	7	2.3	2.3	3.5	1.1	1.0	1.8
Finland	7.1	8.9	10.0	5	1.1	1.4	1.6	0.3	0.4	0.5
Germany	10.4	11.3	11.3	6	2.5	2.6	2.5	1.0	1.0	1.0
Greece	19.3	19.0	18.5	14	6.9	6.2	5.7	3.5	3.0	2.7
Netherlands	9.2	10.1	10.0	6	2.0	2.2	2.2	1.0	1.1	1.1
Portugal	20.9	21.3	20.7	13	4.8	5.2	4.6	1.5	1.7	1.4
Spain	17.3	17.4	18.5	13	5.5	5.7	5.9	2.8	2.9	3.0
UK	19.2	15.8	15.1	11	3.5	2.6	2.4	1.0	0.8	0.7

Gini are based on equivalized income using the modified OECD scale (zeros are bottom-coded as 10E-1). Poverty line is 60% of the median.
** Disposable incomes for 2001 and 2003 are simulated on the basis of 1998 incomes, nominally adjusted to account for average income growth*

The question now arises as to which policy changes have affected income distribution. To attempt to answer this, countries are divided into three groups according to whether policy changes have decreased inequality and relative poverty, increased them or had uncertain effects.

EQUALISING EFFECT: GREECE, UK AND AUSTRIA

Results point out towards a substantial equalising effect of policy changes in Greece and the UK. This is confirmed by Callan et al. (2006) who find larger gains for the lower quintiles and in particular the bottom one in both countries.

In Greece, the boost to the low-income group is associated with policy developments initiated in the late-1990s, especially with marked increases in real terms in particular retirement benefits (social pensions, farmers' basic pension and pensioner social solidarity benefit). Changes in the policy structure also occurred in 2000-02, in particular, with the introduction of a social contribution rebate for low income earners in 2000 and a refundable tax credit aimed at households in less favoured areas and at families with children aged 6-16. These measures are known to be associated with low take-up and their effect is accordingly almost certainly overstated in the simulations. Overall, the simulations indicate a gradual reduction in inequality and relative poverty over the period as a whole.

In the UK, the main policy changes were, in particular, the extension in 1999 of the refundable Working Family Tax Credit (WFTC) for low-income earning families and a number of substantial nominal adjustments in other taxes and benefits (in particular, council taxes were regularly raised by more than the rate of inflation, affecting families with high incomes more than those with lower levels, and income support for pensioners was increased). According to the simulation, most of the effect seems to have occurred between 1998 and 2001. Yet, the 2003 reform of the tax credit system – including a division of the WFTC into a childcare tax credit and a working tax credit extended to childless households – probably had some effect as well[53].

Other policy measures may have worked against these equalising factors, in particular, the significant reduction in real terms in income support to younger age groups and the reduction in income tax between 2000 and 2005 (the over-indexation of lower tax band in 2002).

Similar (and more detailed) exercises have been undertaken for the UK by Clark and Leicester (2004) and Brewer et al. (2004), which confirm that inequality has declined only slightly – but show that the redistributive measures taken by the Government have reduced the increase in inequality that would have otherwise occurred. They also confirm that the main effect was on relative poverty and indicate that the reduction in this occurred mainly in respect of children and pensioners as a result of the targeted tax credit measures.

[53] Other studies indeed indicate that the child tax credit has resulted in substantial increases in support for low and middle income families. Note that EUROMOD is probably not well suited to capturing the effect of this particular measure because of difficulties in identifying whether families use childcare or not.

In Austria, changes took the form of a slight gradual decline in inequality and a more significant reduction in relative poverty between 1998 and 2003. As suggested by Fuchs and Lietz (2007), this can be related mainly to the increase in family allowance, the introduction of the universal childcare benefit and, to a lesser extent, the increase in tax relief (child tax credit for single-earner couples and lone parents). The overall redistributive effect of these measures stems partly from the fact that children are relatively concentrated in lower income groups. Fuchs and Lietz indicate that the main winners were couples with three or more children and lone parents, reflecting the family-friendliness of the measures and their contribution to reducing child poverty.

The reduction in tax rates in 2000-2001 may have played against the equivalizing effect of family policies, yet compensated at the same time by reduction of general tax credits (wage-earner tax credit, pensioner tax credit) and by fiscal drag.

POLICIES INCREASING INEQUALITY AND/OR RELATIVE POVERTY: FINLAND, SPAIN AND THE NETHERLANDS

By contrast, policy changes in Finland, Spain and the Netherlands have contributed to increasing inequality.

In Finland, cuts in housing and unemployment benefits occurred in the late-1990s (see Kiander et al., 2006). The main policy change in the early 2000s was the overall reduction in the progressivity of income tax, all rates of (progressive) state income tax being cut (the top rate from 38% to 34% between 2000 and 2004) while (flat-rate) municipal tax was reduced slightly in 2001 and 2003. In addition, the earned income allowance in municipal taxation was increased substantially, which benefited those who pay income tax but not the poorest who do not (contrary to a refundable tax credit). The Income limits of the progressive tax schedule were raised in line with prices up until 2000 but then increased more substantially in 2001. These policy developments translate into a gradual increase in inequality and relative poverty.

In *Spain*, the main change in tax-benefit policy was the tax reform of 1999, the most notable characteristic of which is the reduction in the number of tax brackets from 9 to 6; a general reduction in marginal tax rates (maximum and minimum rates declining from 56% to 48% and from 20% to 18%, respectively); the introduction of personal and family tax allowances in place of the previous family tax credits and the ending of the special schedule for joint taxation. While the reform is suspected to reduce the progressivity of the system (according to Oliver and Spadaro, 2004, and Labeaga et al., 2005), Castaner et al. (2004) show that the tax reduction diminishes as income rises, with the exception of the top 1%,, and that the new system is more progressive than the old, though the effect is insufficient to compensate for the overall reduction in tax rates. The calculations here show a small increase in the Gini between 1998 and 2001.

In 2003, further reductions in tax rates (from 48% to 45% for the top rate and from18% to 15% for the bottom) and the introduction of a refundable tax credit for working mothers with children of under 3 seem to have benefited middle and high income earners more than others; though this was partly compensated by fiscal drag (tax bands were uprated in line with inflation only in 2003). The simulations show no significant effect except an increase in relative poverty with the threshold set at 60% of the median.

In the Netherlands, most of the effect occurred in 2001 with the introduction of a tax reform that reduced tax rates significantly (the top tax rate from 60% to 52%) and the replacement of the former tax allowance on earned income by a new individualised employment tax credit (the maximum amount applying to someone working full time at the minimum wage).[54] The tax credit is not especially targeted on low earnings since it is not phased-out and is not refundable, so having only a limited redistributive effect. Overall, the tax cuts probably predominate and the policy changes translate into slightly higher degree of inequality and relative poverty rate in 2001. No major change occurred between 2001 and 2003 and the introduction of tax credits and subsidies for childcare in early 2000s seems to have had very little effect.

UNCERTAIN EFFECTS OVER THE PERIOD 1998-2003: BELGIUM, GERMANY AND PORTUGAL

In Belgium, income tax was progressively reformed from 2002 on, with an extension of the middle tax brackets, the consolidation of the 52% and 55% tax brackets into the 50% bracket, the alignment of married and single tax allowances (significantly increasing the gains from working for second earners in couples) and the introduction of a tax credit on earned income (replaced in 2004 by a reduction in social security contributions for employees). Child tax allowance was transformed into a refundable tax credit benefiting low-income families with several children, previously unable to benefit fully from the tax allowance. Lone parents were granted a supplementary tax allowance. Valenduc (2002) and Cantillon et al. (2003) conclude that the gains from the reform are concentrated in the middle and upper income groups, though distributional effects are limited. Similar results are obtained here, with hardly any change in inequality over the period. It is not clear what gives rise to the increase in relative poverty which seems to have occurred in 2003.

In Germany, a long period of increases in the average effective rate of income tax came to an end with the reform introduced in 1999 and the progressive implementation of tax cuts over

[54] The Dutch tax reform of 2001 was also aimed at lowering the marginal tax rate on the second earner of a couple.

the period 2000-2005[55]. In parallel, the personal allowance was increased by nearly a quarter while the failure of tax bands to be adjusted fully for inflation was less pronounced for those on the high incomes (Corneo, 2005). These policy developments ought to have led to a significant decline in progressivity, all the more so since the income tax system in Germany has a major equivalising effect (cf. Bach et al., 2006, Immervoll et al., 2005). Haan and Steiner (2004) show that relative gains tended to increase with taxable income, the net income of the bottom quintile being estimated to have increased by around 1% while that of the top two deciles rose by 4% and 7%, respectively.

This analysis, however, focuses on the income tax reform alone and does not take account of other policy changes which occurred at the same time – in particular, low skilled workers were exempted from social security contributions on earnings of up to EUR 325 in 1999 (the so-called mini-job reform), which was extended to EUR 400 in 2003. Earnings as low as this are also exempt from income taxation. Overall, there was only a small increase in inequality and the relative poverty rate between 1998 and 2001 and hardly any change after 2001.

In Portugal, a small increase in inequality and relative poverty between 1998 and 2001 was probably due to changes in the tax schedule (notably the introduction of a tax-free allowance and a small cut in tax rates). In the later period, minimum income and minimum pensions were increased by 2% a year in real terms and a means-test was introduced in the child benefit scheme, making the system more redistributive. These changes appear to have reduced inequality and relative poverty back to what they were in 1998.

POLICY CHANGES COMPARED WITH OVERALL CHANGES IN INCOME DISTRIBUTION

The changes in inequality and relative poverty considered above are conditional on holding constant the underlying structure of population and income at their 1998 levels. The actual change in income distribution is, in practice, the combined effect of changes in the underlying distribution of pre-tax and pre-transfer income, the composition of household income (between earnings from employment, income from capital, etc.), the structure of population, employment patterns and other government policies (such as minimum wages). Moreover, tax-benefit policies may themselves have additional (secondary) effects since they influence behaviour through their effect on incentives to work, to have children, to save and so on (so affecting labour supply, fertility rates, savings, etc.).

[55] In particular, the lowest marginal tax rate has been decreased from 22.9% to 19.9% in 2001 then to 16% in 2004 and 15% in 2005. The top rate was 53% in 1998, 51% in 2001, then decreased to 48.5% in 2001, 45% in 2004 and 42% in 2005.

Since it is not possible to control for all these factors, the changes attributed to pure policy effects discussed above are simply compared here with 'actual' changes in income distribution, as reported for instance by Eurostat and commented on by Förster and d'Ercole (2005) for a similar period. Clearly, there are serious limitations to such a comparison, the main one being that 'official' measures also suffer from potential measurement errors. In addition, there are breaks in the series for many countries for the 2001-2003 period in particular, since the results reported for 2001 come from the last wave of the ECHP while those for later years are either from the EU-SILC (for Belgium, Greece, Ireland, and Austria) or from national sources. This naturally limits the possibility of comparing the changes caused by policy with the 'actual' changes in inequality or relative poverty.

The results are reported in Figures 3 and 4. In Greece, inequality and relative poverty declined over the period 1998-2001, possibly in part due to policy. The results, however, conflict in the later period, suggesting perhaps that the effect of the redistributive policies of the early 2000s are perhaps over-estimated (as noted above) or that other factors were at work. However, it is more likely that the change observed was due to a break in the series – replacement of the ECHP by EU-SILC in 2003 – which makes any comparison with the effects of policy impossible.

Comparisons for the UK are particularly interesting. Brewer et al. (2004) report a divergence from 2000 on between the actual Gini (slightly declining) and that simulated on the basis of the 1996 tax-benefit system (strongly increasing), indicating that changes in taxes and benefits had the effect of reducing the extent of inequality while underlying (pre-tax) income distribution became more unequal[56]. They show that even the relatively large redistributive programme introduced by the Government after 1997 was only just sufficient to halt the increase in inequality and was not sufficient to reduce it[57]. In the analysis here, the relative poverty rate measured with the threshold set at 60% of median income actually declines between 1998 and 2001 but not as much as would have been the case if underlying inequality had been held constant at 1998 levels. As for the Gini coefficient, Eurostat reports an increase from 0.32 in 2000 to 0.35 in 2001, which again casts doubt on the continuity of the series. Instead, Brewer et al (2005) report a decline of 0.01 in the coefficient between 2001 and 2003

[56] Brewer et al. explain that such widening inequality continued over the 1990s and early 2000s probably because of the relative demand for more educated workers (see Machin,2003), and possibly because of other factors such as changes in 'social norms' regarding top pay (see Piketty and Saez, 2003). Förster and d'Ercole (2005) also note that movements at the upper end dominated the changes in income distribution for a majority of countries.

[57] Brys and Heady (2006) suggest that the increasing dispersion in market income is a major factor underlying changes in income inequality in most countries, while taxes and benefits can only partially offset these effects. They indicate that taxes and benefits may affect redistribution between age groups or family types more than that between rich and poor.

(following a continuous increase for several decades) on the basis of the Family Expenditure Survey.

For Austria, the small decline in 2001 in the relative poverty rate is confirmed but it is not possible to compare the change up to 2003 because of a break in the series.

Policy changes seem to explain some of the increase in inequality and relative poverty in Finland up to 2001. However, Riihelä et al. (2005) show that there is a longer-run trend towards increasing inequality from the early 1990s, partly due to the increase in the share of high incomes because of an unprecedented increase in income from capital. Nevertheless, Jäntti et al. (2005) indicate that tax-benefit policies have also played a role. Social assistance and progressive taxation are argued to have had a smoothing effect on income inequality resulting from the recession of the early 1990s. Conversely, in the late 1990, increased inequality seems to be due to tax and benefit policies (more than to trends in the underlying distribution of income), reflecting in particular the large cuts in transfers in the late 1990s and the reduction in the progressivity of the tax system noted above. After 2000, inequality in disposable income followed the same course as inequality in the underlying distribution of earnings (see Kiander et al., 2006). The small decline in the Gini in 2001-2002 corresponds to the end of the 'bubble', with a reduction in income from capital[58]. As can be seen in Figure 3, this effect offsets the policy effect, which would otherwise have led to a further increase in inequality.

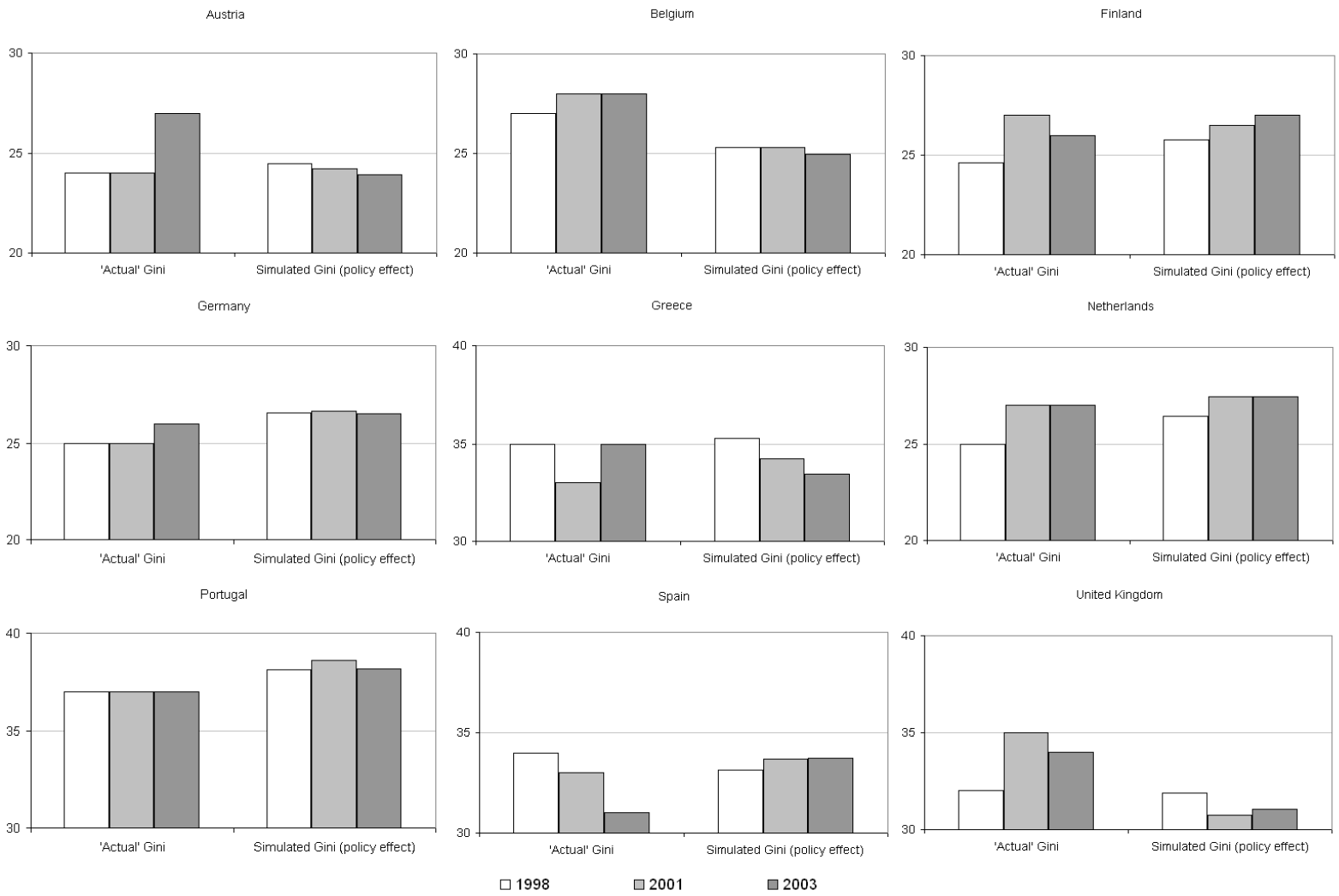
For Spain, it seems difficult to reach any firm conclusions, especially since the decline in the 'actual' Gini coefficient from 0.33 in 2001 to 0.31 in 2002 seems to be due to a change in the data source. For the Netherlands, it could well be the case that the tax reforms noted above are a primary cause of the increase in inequality and relative poverty between 1998 and 2001.

It is difficult to conclude anything for countries where the effect of policy is small. The comparisons for Germany and Belgium seem also to be affected by a break in the series after 2001 (though Förster and d'Ercole assert that some of the increase in inequality seems to be genuine in Germany, as the same data show a rise of 0.02 in the Gini coefficient between 2002 and 2003).

Finally, for the two countries examined in Part 1 above, 'official' data confirm the marked reduction in inequality of the late 1990s in France and, more especially, in Ireland as well as the increase in the relative poverty rate in Ireland.

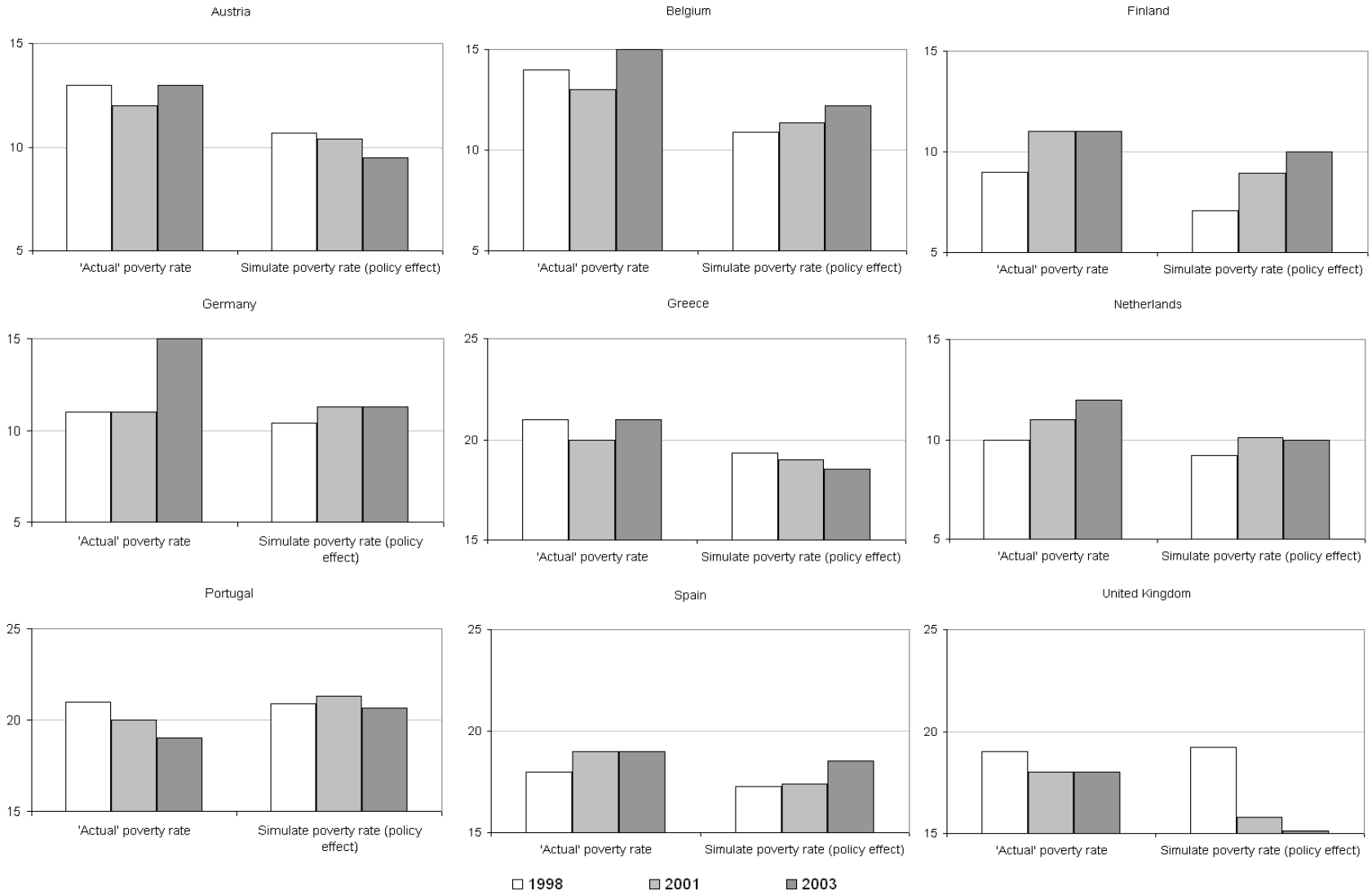
[58] This is indicated by the fact that the 2001-2002 decline does not appear when disposable income is calculated without realised income from capital (Fig.5 in Riihelä et al., 2005). Another sign is the reduction in the share of income of the top 1% during these two years (Fig.2 in Riihelä et al., 2005).

Fig. 3: Comparison of actual change in inequality with changes due to the effect of policy



'Actual' Gini are taken from Eurostat while simulated Gini are computed using Euromod and holding the underlying population constant (1998). Measures are based on household equivalised disposable incomes. For Germany, Belgium, Greece and Portugal, some of the change between 2001 and 2003 appears to be attributable to the break in the data series (cf. SSO report 2005 and 2006). For Finland, 1998 figure corrected on the basis of Mattila-Wiro

Fig. 4 Comparison of actual change in relative poverty rate with change due to the effect of policy



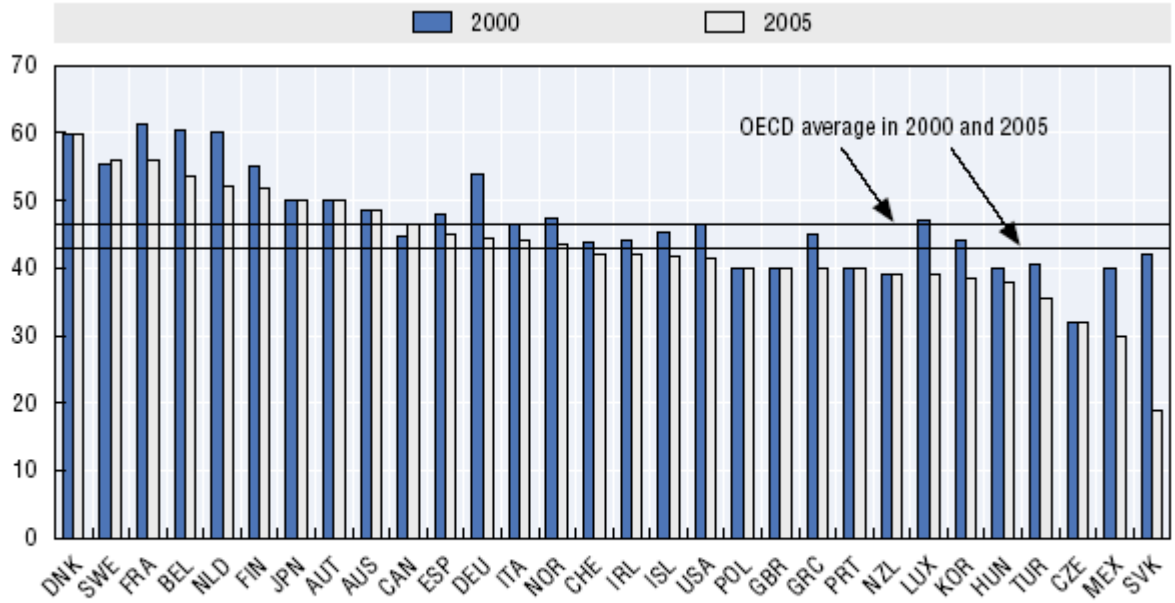
'Actual' poverty rates are taken from Eurostat while simulated ones are computed using Euromod and holding the underlying population constant (1998). Poverty is calculated as the number of individual below 60% of the median of equivalised disposable incomes. For Germany, Belgium, Greece and Portugal, some of the change between 2001 and 2003 appears to be attributable to the break in the data series (cf. SSO report 2005 and 2006).

INCOME TAX REFORMS IN EU COUNTRIES

Introduction

In recent years, there has been a general downward trend in the level of income taxation in OECD countries. The phenomenon is well known so far as corporate taxation is concerned, and is justified by the mobility of capital and associated tax competition. To a lesser extent, the same trend is observed for taxes on income from employment. In particular, as reported on Figure 5, many OECD countries have reduced their top rates of income tax to come closer to the international norm. Even though labour remains a less mobile factor of production than capital, official justifications are also linked to potential tax evasion and the desire to attract high-skilled workers. There is a good chance that this trend will continue, especially in countries where budget deficits are not a problem and/or where the contribution of personal income taxes to total government revenue is relatively small. Countries where progressive tax schedules have been replaced by a flat-rate tax, like Iceland or the Baltic countries, represent test cases in this respect.

Fig. 5 Top marginal tax rates on income from employment in OECD countries, 2000 and 2005



1. The statutory personal income tax rates on wage income applicable at the highest income threshold for single individuals.

Source: OECD Taxing Wages calculations.

The concern here is to investigate the extent to which these tax reforms have affected income distribution in 7 European countries where the reforms have been particularly important. The focus is on a slightly longer period than in Part 2 – on the period 1998-2006 – and on the redistributive effects of income tax reforms alone instead of taxes and benefits as a whole.

Accordingly, the change in income tax between 1998 and 2006 is simulated holding the structure of population and income as well as the rest of the tax-benefit system constant. To limit the analysis, the simulation is confined to tax cuts and change in tax bands, which are commonly held to be responsible for a decline in the progressivity of taxation in public debates. Other policy changes (in tax schedules, deductions, allowances, tax credits, etc.), examined, for instance, in Verbist (2004) and Wagstaff et al. (1999), are ignored[59].

In addition, the logic of a 'race to the bottom' type of tax competition is pushed to the extreme by considering a situation where all countries abandon progressivity and adopt a proportional flat tax system.

In what follows, the recent tax reforms in the 7 EU countries are, first, described, two flat-rate tax scenarios are than presented and the simulation results reported. The conclusion is that the recent tax cuts as well as a uniform flat-rate tax system affect the redistributive potential of the different countries in contrasting ways.

Tax systems and recent reforms

METHODOLOGY

The approach adopted is first to define a baseline which is a simulation of the effects of the 1998 tax-benefit system on income distribution in 1998. The tax schedule (tax rates and brackets) is then replaced by that prevailing in 2006, keeping the rest of the tax-benefit system unchanged. The 2006 tax bands need to be deflated to represent their 1998 level in real terms so that they can be applied to incomes in 1998. There are several ways of doing this and two alternative methods are adopted here. The first (A) consists of applying the relative differences between tax bands in 2006 to the bottom band in 1998; since the bottom tax bracket was subsequently abolished, however, the next to bottom band in 1998 (which became the bottom band in 2006) needs to be used as the basis of the estimation. The second method (B) is to deflate the 2006 tax bands by the increase in average earnings over the period.

The rationale for each of these two types of adjustments is, in the case of A, to focus on the relative change in the size of tax brackets that may affect redistribution, which is a relatively simple method to apply but which does not necessarily reflect the true changes in the tax structure since the tax bracket taken as the base may itself be widen or narrowed by policy makers. Adjustment (B) is not subject to this possibility but may capture more than relative changes, since if policy makers in practice increased bands at a lower rate than average over

[59] The treatment of family size and the shift from (optional) joint taxation to individual taxation in Spain are exception since these changes were not dissociable from the overhaul of the tax schedule.

the period 1998-2006, some bracket creep is likely to occur which will be reflected in the measure.

Table 7 compares the 1998 and 2006 tax structures for each country. The first panel represents the tax rates, the second the actual tax bands, expressed as a percentage of average gross earnings for each country and each period, so enabling redistributive structures to be compared across countries. The last panel at the bottom of the table reports the actual nominal tax bands for 1998 and the adjusted tax bands for 2006, that is, tax bands deflated by the 1998-2006 increase in (A) the bottom tax band or (B) average earnings.

It is important to note that the simulations take account only of the direct effect of tax policy changes, holding behaviour unchanged. While the response of labour supply to tax changes has been the subject of much research (cf. the survey of Blundell and MaCurdy), the size of elasticities is still uncertain and the margin of error of estimates is often large. Moreover, working time and labour force participation are not the only factors which tax reforms might affect, as shown by recent literature on the 'new tax responsiveness' (cf. Lindsey, 1987, Feldstein, 1995, and Slemrod, 2000). In particular, high-skilled workers might change other aspects of their behaviour, such as their work effort, so that the elasticity of income to tax might be larger than the elasticity of labour supply for these higher income groups. Given the current state of the literature, however, it is very difficult to predict the response of these various aspects without making heroic assumptions. The approach here is simply to take account of the direct (or static) redistributive effect of the reforms but to keep in mind that changes in behaviour in response to the reforms might affect the actual redistribution which occurs.

REVIEW OF POLICY CHANGES IN EACH COUNTRY

The top panel of Table 7 indicates that in all countries except the Netherlands the number of tax brackets was reduced over the period. Top marginal tax rates have been cut in all countries, by between 4.5 percentage points (in Finland) to 11 percentage points (in Spain and Germany).

Belgium

In Belgium, the middle tax bracket was extended and the two highest marginal tax rates (55% and 52%) collapsed into the 50% bracket in 2002. Other changes, not simulated, include the alignment of married and single tax-free allowances, increases in child benefits (by transforming the tax credit for dependent children into a refundable tax credit),and the introduction of new tax allowances and new benefits to low-wage workers, in the form of

reduction in employees' social security contributions (from 2000).[60] The reform of the tax structure alone had the effect of reducing revenue by almost 1.5% of GDP, the most costly part of the total changes.

As indicated in Table 7, tax bands were not distorted much over the period. When expressed in relation to average earnings, they show an extension of the 40% bracket and a compression of the 45% bracket. The 2006 tax structure is associated with some bracket creep as most tax bands narrow when deflated by the increase in average earnings.

Finland

For Finland, the municipal flat-rate tax on employment and capital income is kept unchanged at (between 15 and 19.75% in 2001 depending on the region, and 17.55% on average)[61] and the focus is on cuts in the (progressive) state earned income tax. Tax rates at all levels were gradually reduced over the period, from 6 percentage points (for the lowest rate) to 4.5 percentage points (top rate), so lowering the bottom rate to zero, the second to 10% and the top rate to 33.5%.

Income limits were raised broadly in line with price inflation up to 2000, more substantially in 2001 and by 1% a year in the subsequent period. As shown in Table 7, this was well below the rise in average earnings, so that bracket creep would have occurred if tax rates had not been cut at the same time. For example, the second tax rate (16% in 1998) applied to income between 42% and 53% of average earnings in 1998 and between 35% and 44% of average earnings in 2006. This second bracket became the bottom band over the period but was very similar to the bottom bracket in 1998 which applied to earnings of between 31% and 42% of the average. Accordingly, incomes in this range were actually taxed at a higher are in 2006 than in 1998 (10% instead of 6%). In a similar way, the former second bracket is comparable to the new second bracket in terms of the earnings they apply to and incomes in this range are now taxed at 15% instead of 16%. This is not the case, however, for the higher brackets

[60] Reforms are described in Ministère de Finances (2002). Valenduc (2002) assesses the direct distributional impact of the reform using the SIRE tax microsimulation model on a sample of taxpayers. Orsini (2004) examines the behavioural impact of the reform using the Belgian module of EUROMOD on a sample representing the whole population. See also Cantillon et al. (2003). All authors agree that the gains from the reform are concentrated in the middle and upper income groups but that distributional effects are limited. The tax credit component of the reform seems to have a very limited effect on the labour supply.

[61] These taxes were raised slightly in 2001 (up to an average of 17.7%) and 2003 (to 18%). Other changes include the gradual increase in maximum earned income allowance in municipal taxation, which benefited those who pay income tax but not the poorest (contrary to a refundable tax credit), and the introduction of a standard deduction for work-related expenses.

France

There were almost continuous cuts in income taxes by successive governments over the period[62], all rates being reduced, the lowest from 10.5% to 6.8%, the highest from 54% to 48%. The focus here is on the effect of these tax cuts and other changes, in particular, the introduction in 2001 of a small earned income tax credit, are ignored[63]. While (the progressive) income tax was being cut, flat-rate social security contribution (CSG and CRDS) were increased continuously over the period.

[62] Early calculations by the author show that the 5% cut on all tax rates implemented after the 2002 election has benefited mostly to the upper vintiles (the two last vintiles have received 13% and 27% of the gain respectively) while the 6 first vintiles have received nothing.

[63] This refundable credit, the PPE, compensates low-earning workers who do not benefit from tax cuts (since they are not tax liable). Bargain and Terraz (2003) find a limited redistributive effect of this measure due essentially to its targeting (low-wage individuals rather than low-income households) and its lack of generosity (2.2% of a full time salary paid at minimum wage in 2001, increased up to 4.4% in 2005).

Table 7: summary of tax reforms in 7 EU countries between 1998 and 2006

	Belgium		Finland		France		Germany**		Greece		Netherlands		Spain	
	1998	2006	1998	2006	1998	2006	1998	2006	1998	2006	1998	2006	1998	2006
no. of tax brackets*	7	5	6	5	6	6	3	3	5	3	3	4	8	5
Tax rates														
1	0.25	0.25	0	0	0	0	0	0	0	0		0.018	0	0.15
2	0.30	0.30	0.06	0	0.105	0.068	0.259	0.15	0.05	0	0.071	0.0935	0.20	0.24
3	0.40	0.40	0.16	0.105	0.24	0.191	0.343	0.24	0.15	0.15	0.5	0.42	0.23	0.28
4	0.45	0.45	0.20	0.15	0.33	0.283	0.53	0.42	0.3	0.3	0.6	0.52	0.28	0.37
5	0.5	0.5	0.26	0.205	0.43	0.374			0.4	0.4			0.32	0.45
6	0.525		0.32	0.265	0.48	0.426			0.45				0.39	
7	0.55		0.38	0.335	0.54	0.481							0.45	
8													0.52	
9													0.56	
Actual tax bands of both years (in % of average gross annual earnings)														
1	0.21	0.19	0.31		0.15	0.14	0.18	0.18	0.23			0.43	0.17	0.19
2	0.28	0.27	0.42	0.35	0.30	0.28	0.85	0.30	0.59	0.52	0.73	0.77	0.42	0.67
3	0.40	0.45	0.53	0.44	0.53	0.49	1.73	1.23	0.94	0.71	1.61	1.31	0.83	1.25
4	0.92	0.82	0.74	0.59	0.86	0.80			1.64	1.26			1.27	2.18
5	1.38		1.17	0.93	1.40	1.31			3.52				1.85	
6	2.03		2.06	1.64	1.72	1.60							2.47	
7													3.14	
8													3.82	
Adjusted tax bands for simulations on 1998 data (Euro)														
	1998	A	B	1998	A	B	1998	A	B	1998	A	B	1998	A	B	1998	A	B	1998	A	B	1998	A	B
1	6,272	6,272	5,582	7,737			3,947	3,947	3,677	6,322	6,322	6,398	3,096				11,915	12,478	2,807	n.a.	2,878
2	8,304	8,922	7,941	10,428	10,428	8,640	7,764	7,762	7,232	29,984	10,509	10,635	7,740	7,740	6,896	21,411	21,411	22,423	6,978	n.a.	9,928
3	11,849	14,867	13,232	13,119	13,382	11,088	13,667	13,664	12,730	61,376	43,020	43,538	12,384	10,592	9,436	47,091	36,508	38,234	13,793	n.a.	18,561
4	27,268	27,242	24,248	18,501	17,814	14,760	22,129	22,124	20,612				21,673	18,740	16,695				21,005	n.a.	32,374
5	40,902			29,097	27,894	23,112	36,007	36,160	33,689				46,442						30,622		
6	59,990			51,466	49,444	40,967	44,404	44,393	41,359										40,839		
7																			51,837		
8																			63,106		

** Excluding tax-free brackets. ** The German tax schedule is not piecewise linear: marginal tax rates increase slowly between the 1st and 2nd tax band and more rapidly between the 2nd and the 3rd; higher incomes are then taxed linearly at the top marginal rate.*

Tax schedules reported here are for single individuals. All tax rates correspond to progressive taxation only. Social security contributions and non-progressive income taxation are not accounted in the tax schedule above, in particular (flat-tax) special social security tax in France (CSG, CRDS, solidary tax), flat-tax municipal taxation in Finland, church tax in Germany and Finland, solidarity surtax of 5.5% in Germany, etc.. In the bottom panel, tax bands are adjusted by: (A) the growth rate of the (last period) first tax band, (B) the growth rate of average gross earnings.

The relative distance between tax bands, as measured by Adjustment A, hardly changed over the period, while measured by Adjustment B, there was a small reduction especially for higher tax bands, which was compensated by tax cuts. For example, income between 1.6 and 1.72 times average earnings was taxed at 48% in 1998 and in 2006 at the top rate which is also close to 48%.

Germany

The German tax system is progressive but not linear. Marginal tax rates increase continuously in the two first positive tax brackets. In 2000, a major reform of the income tax system was introduced for the 2000-2005 period, the official aim being to reduce the overall tax burden and to stimulate employment of low-wage workers. Accordingly, the personal income tax allowance was increased substantially and the bottom tax rate was cut by more than 10 percentage points over the period. The reform also benefited higher income earners, the top tax rate, initially at 53% in 1998, being cut from 51% to 42% between 2000 and 2005. The

reform also introduced exemption from tax and social security contributions on low-paid jobs (the 'Mini-job' reform).

Table 7 shows that the increase in the personal tax allowance was simply in line with the increase in average earnings. By contrast, the bottom (positive) tax bracket was extended considerably. Incomes of between 0.18 and 0.82 times the average were taxed at between 25.9% and 34.3% in 1998 while the bottom group in 2006 (incomes of between 0.18 and 0.30 of the average) were taxed at between 15% and 23.9% . Incomes of over 0.30 times and up to 1.23 times the average were taxed at 23.9%-42%, while those with income of above 1.7 times the average unambiguously gain from a cut of 11 percentage points in the top rate[64].

Tax reductions were partially financed by broadening the tax base, e.g. by restricting the use of loss relief, changing depreciation rates and reducing the proportion of interest income that is exempted from tax.[65] More recent reforms are not taken into account here.[66]

Greece

In Greece, the number of tax bands was reduced from 5 to 3 over the period with the abolition of the lower 5% rate and the top 45% rate. As in Finland, the second (positive) tax band became the bottom one. Changes in tax bands expressed in relation to average earnings indicate that some bracket creep occurred for the 30% and 40% tax brackets. Consequently, the reform may have had an overall progressive effect.

Netherlands

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[64] Haan and Steiner (2004) provide a comprehensive analysis of all the policy changes (except the Mini-job reform). They point out to a significant increase in net household income and positive labour supply responses that should reduce the revenue loss. They also find that relative gains should also increase with taxable income, leading to a rise in income inequalities. In particular, the net income of the first two deciles are estimated to increase by 1.4% and 0.9 % respectively and the net income of the last two deciles by 4% and 7.2%. The redistributive effect of the increased tax allowance alone is limited since it is not refundable. Corneo (2005) interestingly puts the reduction in income tax progressivity in an historical perspective and notes that the effect of tax cuts should be all the stronger as the German income tax system initially had a major equalising effect (see also Bach et al., 2006, Immervoll et al., 2005).

65 While reduction in exemptions, deductions and loopholes could also reinforce the progressive nature of the tax schedule, since base-broadening measures are held to affect top incomes especially (cf. Fuest et al., 2006), Corneo (2005) agues that actual measures were not large enough to offset the large reduction in progressivity due to tax cuts.

[66] In 2007, the government deficit, reflecting revenue losses from past tax reductions, will be partially compensated by a 3 percentage point increase in VAT in 2007 (up to 19%, the reduced rate remaining at 7%). This is proportional to household income and hence distributionally neutral (or slightly regressive). In 2007, an additional income tax rate of 45% for incomes above EUR 250,000 (for single people) was introduced, as well as an extension of the deductibility of childcare services and of the tax credit for domestic services.

In the Netherlands, most of the changes occurred in 2001 with the introduction of a tax reform that reduced tax rates significantly (the top rate from 60% to 52%) and replaced the tax allowance on earned income by a new individualised employment tax credit (the maximum amount being reached at the minimum wage).[67] This tax credit is not especially targeted on low earnings since it is not phased-out and is not refundable, so having only a limited redistributive effect. Overall, the tax cuts probably have a predominant effect and give rise to slightly higher inequality and relative poverty in 2001. No major change occurred between 2001 and 2003 and the introduction of tax credits and subsidies for childcare in early 2000s seems to have had very little effect (cf. Brys and Heady, 2006).

Spain

In Spain, the 1999 income tax reform reduced the number of (positive) tax brackets from 8 to 5, abolished the zero-rate bracket and cut marginal tax rates (maximum and minimum rates declined from 56% to 48% and from 20% to 18%, respectively). Another structural change, the abolition of the option of joint taxation for couples (i.e. the return to a system of pure individual taxation), cannot be disassociated from changes in the tax schedule.[68] In contrast to the procedure adopted for other countries, the simulation here covers the whole reform, including the replacement of family tax credits by a set of tax allowances.[69] In 2003, further reductions in tax rates – the top rate from 48% to 45%, the bottom from 18% to 15%, and the introduction of a refundable tax credit for working mothers with children below 3 (not simulated) seem to have benefited middle and high income-earners more than others. This may have been partly offset by fiscal drag (tax bands were uprated in line with inflation only in 2003).

A large number of changes occurred over the period and it is therefore difficult to compare the systems in 1998 and 2006. In particular, Adjustment A cannot be used since the abolition of the tax-free bracket and the change in the tax structure mean that the bottom bands of 1998 and 2006 are not comparable. Some assessment, however, is possible. In particular, single

[67] The Dutch tax reform of 2001 is also aimed at lowering the marginal tax burden of the partner with the lowest earnings.

[68] Clearly, this part of the reform makes it impossible to adapt the 1998 tax structure to that prevailing in 2006.

[69] These radical reforms have motivated several studies. Some show that the overall reform may have reduced the progressivity of the system (Oliver and Spadaro, 2004, and Labeaga et al., 2005). In contrast, Castaner et al. (2004) show that higher incomes are subject to a smaller tax reduction, with the exception of the top 1% of income-earners, and that the new system is more progressive, although this effect is insufficient to compensate for the overall reduction in tax rates. Interestingly, Oliver and Spadaro (2004) interpret the reform as a change in social preference – away from redistribution – as reflected by the change of majority after the elections of 1996.

people with income up to around 0.17 times the average were not taxed in 1998 and were taxed at 15% (if they had no children) in 2006; those with income of between 0.17 and 0.42 times the average were taxed at a marginal rate of 20% in 1998 and at 24% in 2006. At the other end of the scale, those with incomes above 3.14 times the average faced a marginal rate of 45% in 2006 instead of 52% or 56% in 1998.

Other countries (not simulated)

In most of the other EU15 countries, recent policy changes have also largely taken the form of tax cuts, but have generally been smaller than in countries considered above. Though the changes are not simulated, it is possible briefly to describe those that have affected income distribution.

In Denmark, the 2004 tax reform increased income tax allowances, reduced marginal tax rates, especially for lower incomes, and raised the income threshold for the middle tax rate, so that by 2007, only 60% of those in full-time employment paid the middle tax rate as compared with 90% previously. In Ireland, cuts of 2 percentage points in both the standard and the top rates (down to 20% and 42% respectively) have benefited higher incomes. In Italy, personal income tax was reformed in stages between 2003 and 2005, the number of tax brackets being reduced from 5 to 4, the bottom rate being raised from 18% to 23% and the top rate from 45% to 43%, coupled in each case with significant rise in income thresholds and the consolidation of tax allowances. The reform is considered to increase inequalities. In Luxembourg, the top rate of income tax was cut from 46% to 42% in 2001 and to 38% in 2002, while tax bands were widened by almost 50% over this period. In Austria, there were only minor changes over the period, apart from the abolition of the bottom 10% tax bracket in 2000.

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Chapter 8 — Intergenerational transmission of disadvantages

INTRODUCTION

The extent to which a person's life chances are affected by their family background – by their parent's income, education level, job and so on – and how far it is possible for someone to escape from a less advantaged background provide a measure of social mobility. Accordingly, they give an indication of, on the one hand, the constraints which exist within society on personal advancement and, on the other, of the opportunities there are for overcoming the obstacles arising from the circumstances into which they happen to be born.

The EU-SILC for 2005 included a special *ad hoc* module of the EU-SILC for 2005 designed to address this issue. Each respondent aged 25-65 was asked a set of question about the situation of their parents when the person concerned was a young teenager between 12 and 16 years old. The analysis here examines the data collected by the module and considers what they indicate about the relationship between key characteristics of successive generations. It focuses, specifically, on three aspects of this relationship: the education attainment level of parents and their children, the occupations of the two and their financial circumstances.

In each case, the strength of the relationship in question is examined in terms of the 'odds ratio', which measures the increased probability of someone with a particular family background having a certain characteristic, such as, for example, someone whose parents had a high level of education themselves having high education, as compared with someone whose parents had a lower education level. In other words, if 30% of people whose parents had high education themselves have high education, while 10% of those whose parents had a low level of education have high education, then the odds ratio is 3 (30% divided by 10%), implying that people in the first category have three times the chance of having a high education level as those in the second.

The results of the analysis are not only interesting in themselves but are important for the light they throw on the scale of obstacles which exist to achieving true equality of opportunity to people throughout the EU, irrespective of their social background, and to ensuring that everyone is given the chance to attain their potential and contribute to the full to economic advancement and rising living standards. Such obstacles are, accordingly, a major potential constraint to the pursuit of the Lisbon agenda and to securing its central aim of making the EU 'the most dynamic, knowledge-based economy in the world' quite apart from their social implications.

THE LINK BETWEEN THE EDUCATION LEVEL OF FATHERS AND THEIR CHILDREN

Men and women aged 25-64

Differences in education systems across the EU and in the relative number of people attaining different levels of education complicate the comparison of the influence of parents on the education level attained by their children. In particular, taking two extremes, the proportion of people aged 25-64 with no education beyond compulsory schooling (lower secondary education or below) varies from 74% in Portugal to 10% in the Czech Republic, while the proportion with upper secondary education, but not tertiary level, varies from under 14% in the former to 77% in the latter.

The probability of someone attaining an upper level of secondary education is, therefore, much lower in Portugal than in the Czech Republic, irrespective of the level of education of their father or mother By the same token, in the Czech Republic, only around 12% of people aged 25-64 have tertiary education as compared with 35% in Finland, which implies that there is a much smaller chance of attaining this level of education in the former than the latter, again irrespective of their father's or mother's education.

These large differences should be kept in mind when interpreting the results presented below. The analysis below focuses on the relative chances of men and women attaining tertiary education – which is becoming increasingly important for both economic performance and a person's life chances – in relation to the education level of, first, their father and, secondly, their mother. As well as considering the relationship for those aged 25-65 as a whole, it also considers the relationship in successive 10-year age groups – 25-34, 35-44 and 45-54. This should give an indication of how the relationship between fathers' and their children's education has tended to change over time, since those aged 25-34 will have gone through the education system, on average, 10 years after those aged 35-44, who in turn will have completed their education 10 years after those aged 45-54.

The probability of men and women aged 25-64 having tertiary level education is significantly higher in all EU Member States if their father had the same level of education than if he had a low level, which is here defined as having no qualifications beyond basic schooling.

In all the EU Member States for which data are available (i.e. the 24 less Bulgaria, Malta and Romania), with the sole exception of Slovenia, the probability of someone having completed tertiary education is over 50% if their father had tertiary education (Table 1). Moreover, in all countries, the chances of people having this level of education if their father had the same level

is over twice as high as if their father had only basic schooling. In Czech Republic, Poland and Hungary, the chances are over 9 times greater – i.e. the odds ratio so calculated is over 9 – and in Slovenia and Italy around 8 times greater. Indeed, in all the new Member States covered, apart from Estonia, the odds ratio is around 4 or higher.

Table 1 Probability of attaining High education, of women and men, aged 25-65, by education level of father

		Highest education attained by father			Odds ratio	Odds ratio
Country	No Father	Low	Medium	High	High/Low	High/No Father
CZ	0.10	0.05	0.12	0.52	11.0	5.1
PL	0.08	0.07	0.24	0.69	9.7	9.1
HU	0.14	0.07	0.19	0.60	9.1	4.2
SI	0.07	0.05	0.20	0.42	8.0	6.0
IT	0.08	0.08	0.36	0.64	7.7	7.7
SK	0.15	0.08	0.20	0.52	6.7	3.5
LU	0.21	0.12	0.32	0.80	6.5	3.8
PT	0.09	0.11	0.58	0.65	6.0	6.9
LV	0.14	0.12	0.26	0.58	4.7	4.1
CY	0.18	0.20	0.55	0.81	4.1	4.6
GR	0.18	0.16	0.46	0.65	4.1	3.7
LT	0.18	0.17	0.36	0.65	3.8	3.7
EU-25	**0.18**	**0.18**	**0.33**	**0.63**	**3.6**	**3.4**
AT	0.15	0.14	0.26	0.51	3.6	3.3
IE	-	0.23	0.56	0.82	3.5	-
FR	0.12	0.22	0.53	0.72	3.3	6.0
ES	0.20	0.22	0.51	0.72	3.3	3.7
DK	-	0.18	0.28	0.57	3.2	-
BE	0.18	0.25	0.54	0.79	3.2	4.3
NL	0.25	0.25	0.43	0.69	2.8	2.8
SE	0.21	0.24	0.52	0.63	2.6	3.1
EE	0.21	0.22	0.36	0.58	2.6	2.8
UK	-	0.29	0.43	0.69	2.4	-
FI	0.27	0.29	0.45	0.62	2.2	2.3
DE	0.31	0.28	0.35	0.58	2.1	1.9

Source: EU-SILC, 2005

At the other extreme, in the Netherlands, Sweden, the UK, Finland and Germany, as well as Estonia, the odds ratio is under 3 – though still of course over 2 – implying that there is less of an obstacle in these countries to someone whose father had only basic schooling attaining tertiary education than elsewhere, but that the obstacle is, nevertheless, significant.

Having no father living at home during a person's early teenage years – i.e. being brought about by a lone mother – seems to have a similar influence on their education level as having a father with only a basic level of education (which has more to do with the education level of the mothers concerned than the fact of having no father at home).

The link between education levels of fathers and that of sons and daughters

The strength of the influence of the father's education level is similar for sons and daughters considered separately, in the sense that for both the chances of having tertiary education if their father had also completed tertiary education are much greater than if their father had a lower level of education. In both cases, the odds ratio, comparing those with fathers with tertiary education with those with fathers with only basic schooling, is around 2 or over in all countries (Table 2 and 3).

There are a number of countries, however, where the odds ratio is higher for daughters than sons, implying that it is more difficult for women to attain tertiary education if their father had only basic schooling than it is for men. This is the case, in particular, in the Czech Republic, Hungary, Germany, Austria and the Netherlands. On the other hand, the reverse is the case in Denmark, Sweden and Portugal, suggesting that the obstacles are less for daughters in these countries.

Table 2 Probability of attaining High education, of men, aged 25-65, by education level of father

		Highest education attained by father			Odds ratio	Odds ratio
Country	No Father	Low	Medium	High	High/ Low	High/No Father
PL	0.07	0.06	0.20	0.65	10.5	9.4
CZ	0.09	0.07	0.13	0.57	8.4	6.2
HU	0.14	0.07	0.17	0.58	8.2	4.2
IT	0.07	0.08	0.36	0.67	8.0	9.1
PT	0.06	0.08	0.52	0.62	7.6	9.9
SI	0.04	0.05	0.17	0.36	6.6	8.4
SK	0.16	0.09	0.19	0.49	5.5	3.1
LU	0.22	0.15	0.35	0.81	5.5	3.8
LV	0.11	0.09	0.15	0.51	5.4	4.8
LT	0.17	0.14	0.26	0.60	4.4	3.5
GR	0.17	0.16	0.47	0.67	4.1	4.0
CY	0.18	0.22	0.55	0.84	3.9	4.8
DK	-	0.15	0.25	0.53	3.7	-
EE	0.16	0.14	0.27	0.51	3.6	3.3
IE	-	0.25	0.59	0.88	3.6	-
FR	0.07	0.21	0.50	0.72	3.4	9.6
SE	0.21	0.18	0.48	0.61	3.3	2.9
ES	0.24	0.22	0.49	0.72	3.3	3.1
BE	0.19	0.25	0.53	0.77	3.1	4.1
AT	0.22	0.18	0.29	0.48	2.6	2.1
UK	-	0.29	0.44	0.69	2.4	-
NL	0.24	0.31	0.47	0.72	2.4	3.0
FI	0.21	0.24	0.39	0.54	2.2	2.5
DE	0.37	0.33	0.43	0.63	1.9	1.7

Table 3 Probability of attaining High education, of women, aged 25-65, by education level of father

		Highest education attained by father			Odds ratio	Odds ratio
Country	No Father	Low	Medium	High	High/ Low	High/No Father
PL	0.08	0.08	0.28	0.72	9.1	8.9
CZ	0.11	0.03	0.11	0.46	16.8	4.2
HU	0.15	0.06	0.21	0.63	10.0	4.2
IT	0.09	0.08	0.36	0.61	7.5	6.6
PT	0.12	0.14	0.64	0.67	4.9	5.4
SI	0.10	0.05	0.23	0.48	9.7	4.9
SK	0.13	0.07	0.20	0.54	8.0	4.0
LU	0.20	0.10	0.30	0.79	8.1	3.9
LV	0.17	0.15	0.36	0.65	4.4	3.8
LT	0.19	0.20	0.45	0.71	3.5	3.8
GR	0.18	0.16	0.45	0.63	4.1	3.4
CY	0.18	0.18	0.55	0.78	4.3	4.4
DK	-	0.21	0.31	0.61	2.9	-
EE	0.25	0.29	0.43	0.64	2.2	2.6
IE	-	0.23	0.54	0.76	3.4	-
FR	0.16	0.23	0.55	0.73	3.2	4.6
SE	0.20	0.30	0.56	0.66	2.2	3.3
ES	0.16	0.22	0.53	0.73	3.3	4.6
BE	0.18	0.25	0.55	0.81	3.3	4.6
AT	0.10	0.10	0.23	0.54	5.4	5.5
UK	-	0.30	0.43	0.69	2.4	-
NL	0.26	0.19	0.40	0.65	3.4	2.6
FI	0.33	0.33	0.50	0.70	2.1	2.1
DE	0.26	0.22	0.28	0.54	2.5	2.0

The relatively high values for the odds ratio obtained for the new Member States above might be affected by the fact that, as noted above, only a relatively small proportion of the population – older as well as younger generations – have only basic schooling, which accordingly tends to bias the results upwards as compared with EU15 countries. To take account of this, the odds ratio can be calculated in terms of the probability of someone whose father had tertiary themselves having tertiary education relative to the probability of someone attaining this level of education if their father had either upper secondary education (medium-level) or basic schooling.

The odds ratio so calculated is, of course, lower in all countries measured in this way instead of solely in relation to those with only basic schooling, but the countries where the odds ratio is highest remain much the same – the Czech Republic, Poland and Hungary having the highest ratio for both men and women according to both measures. Moreover, the countries in which the odds ratio is lowest – Germany, Finland and the UK, in particular – also remain much the same. This seems to confirm that the obstacles to social mobility in terms of education levels at least are relatively high in the first three countries and relatively low in the second three.

Table 4 Odds ratio of attaining high education if father has high education, men and women, 25-65

	Men	Women
	High/Low+Medium	High/Low+Medium
CZ	2.9	3.4
PL	2.5	2.0
HU	2.4	2.3
LV	2.1	1.3
SK	1.7	2.0
LU	1.6	2.0
SI	1.6	1.7
IT	1.5	1.4
LT	1.5	1.1
DK	1.3	1.2
EE	1.2	0.9
CY	1.1	1.1
IE	1.1	1.0
GR	1.0	1.0
PT	1.0	0.9
ES	1.0	1.0
AT	1.0	1.6
FR	1.0	0.9
BE	1.0	1.0
UK	1.0	1.0
NL	0.9	1.1
SE	0.9	0.8
FI	0.9	0.8
DE	0.8	1.1
EU-25	**1.3**	**1.3**

Note; Countries ranked in the same order as in Tables 2+3

The link between education levels of fathers and children by age

As noted above, the EU-SILC module also enables the relationship between education levels of fathers and their children to be examined by the age of the latter and dividing these into successive 10-year age groups – 25-34, 35-44 and 45-54 – gives an indication of how the closeness of the link between the education level of successive generations has tended to change over time. Assuming that the average age of fathers at the birth of their children has not changed much over the years, the fathers of those aged 25-34 will have gone through the education system, on average, 10 years after those aged 35-44, who in turn will have completed their education 10 years after those aged 45-54.

The evidence for successive 10-year age groups[70]indicates that the probability of someone whose father had only basic schooling attaining a university degree or the equivalent has tended to increase over time in most Member States, though this partly reflects the general rise in participation in tertiary education (Table 5).

More relevantly, the chance of someone whose father had only basic schooling completing tertiary education relative to someone whose father had tertiary education has risen over the long-term in 17 of the 24 EU Member States for which data are available. In three Member States – Estonia, Hungary and Slovakia – however, it has fallen, in the sense that the odds ratio of a person whose father was a university graduate attaining such a qualification relative to someone whose father had only basic schooling has increased.

In Germany and Sweden, the odds ratio has remained much the same, while in the Czech Republic and Lithuania, it is difficult to determine the direction of change since the figures fluctuate between the three age groups identified.

[70] Because young people in Germany tend to graduate from university at a later age than in other countries and a significant number of those aged 25-34 are, therefore, still in the process of completing their tertiary level programme, the age groups compared in this case are, therefore, 35-44, 45-54 and 55-64.

Table 5 Probability of attaining High education of men and women by age and by education level of father

Country	Age	Highest education attained by father				Odds ratio
		No Father	Low	Medium	High	High/ Low
BE	25-34	0.25	0.33	0.57	0.84	2.5
	35-44	0.20	0.27	0.56	0.76	2.8
	45-54	0.15	0.23	0.48	0.77	3.4
CZ	25-34	0.11	0.04	0.11	0.50	11.9
	35-44	0.13	0.02	0.15	0.55	27.0
	45-54	0.08	0.07	0.13	0.49	7.1
DK	25-34	-	0.22	0.33	0.58	2.4
	35-44	-	0.21	0.29	0.50	3.1
	45-54	-	0.19	0.30	0.61	3.1
DE*	35-44	0.24	0.28	0.36	0.61	2.2
	45-54	0.41	0.33	0.40	0.68	2.1
	55-64		0.28	0.35	0.58	2.1
EE	25-34	0.13	0.16	0.30	0.55	3.5
	35-44	0.23	0.22	0.38	0.56	2.6
	45-54	0.24	0.23	0.36	0.65	2.8
IE	25-34	-	0.41	0.60	0.84	2.1
	35-44	-	0.24	0.50	0.85	3.6
	45-54	-	0.18	0.59	0.81	4.6
EL	25-34	0.26	0.19	0.44	0.63	3.3
	35-44	0.25	0.20	0.51	0.71	3.6
	45-54	0.13	0.14	0.49	0.55	4.0
ES	25-34	0.27	0.33	0.57	0.75	2.3
	35-44	0.26	0.23	0.50	0.74	3.2
	45-54	0.14	0.16	0.46	0.69	4.3
FR	25-34	0.18	0.35	0.62	0.80	2.3
	35-44	0.14	0.24	0.50	0.66	2.7
	45-54	0.12	0.17	0.46	0.73	4.2
IT	25-34	0.11	0.10	0.32	0.63	6.3
	35-44	0.08	0.09	0.34	0.66	7.4
	45-54	0.07	0.08	0.49	0.61	7.3
CY	25-34	0.26	0.28	0.55	0.81	2.9
	35-44	0.17	0.20	0.56	0.81	4.1
	45-54	0.17	0.18	0.62	0.81	4.4
LV	25-34	0.16	0.13	0.22	0.54	4.2
	35-44	0.14	0.11	0.25	0.59	5.2
	45-54	0.11	0.12	0.32	0.60	5.1
LT	25-34	0.32	0.16	0.34	0.69	4.2
	35-44	0.12	0.13	0.32	0.60	4.6
	45-54	0.15	0.20	0.46	0.67	3.3
LU	25-34	0.33	0.18	0.41	0.83	4.6
	35-44	0.21	0.13	0.30	0.81	6.3
	45-54	0.19	0.08	0.28	0.74	8.8
HU	25-34	0.13	0.04	0.19	0.59	14.1
	35-44	0.17	0.06	0.22	0.66	10.3
	45-54	0.16	0.06	0.17	0.58	9.6
NL	25-34	0.27	0.34	0.46	0.68	2.0
	35-44	0.23	0.28	0.40	0.69	2.4
	45-54	0.22	0.24	0.43	0.70	3.0
AT	25-34	0.30	0.15	0.29	0.46	3.1
	35-44	0.17	0.16	0.26	0.51	3.1
	45-54	0.17	0.13	0.25	0.62	4.8
PL	25-34	0.07	0.10	0.28	0.77	7.5
	35-44	0.10	0.07	0.21	0.62	9.1
	45-54	0.04	0.06	0.19	0.62	10.4
PT	25-34	0.14	0.17	0.55	0.62	3.6
	35-44	0.07	0.09	0.54	0.63	7.0
	45-54	0.10	0.09	0.62	0.79	8.9
SI	25-34	0.11	0.09	0.25	0.32	3.7
	35-44	0.09	0.05	0.20	0.58	10.8
	45-54	0.06	0.04	0.16	0.50	12.8
SK	25-34	0.14	0.05	0.18	0.45	9.5
	35-44	0.16	0.06	0.17	0.50	7.9
	45-54	0.15	0.08	0.24	0.63	7.9
FI	25-34	0.28	0.34	0.43	0.52	1.5
	35-44	0.34	0.32	0.40	0.71	2.2
	45-54	0.23	0.29	0.50	0.62	2.1
SE	25-34	0.21	0.31	0.49	0.64	2.1
	35-44	0.22	0.22	0.59	0.64	2.9
	45-54	0.28	0.24	0.52	0.55	2.3
UK	25-34	-	0.42	0.51	0.76	1.8
	35-44	-	0.33	0.43	0.65	2.0
	45-54	-	0.27	0.46	0.72	2.6
EU-25	**25-34**	**0.19**	**0.25**	**0.32**	**0.62**	**2.5**
	35-44	**0.17**	**0.19**	**0.33**	**0.64**	**3.4**
	45-54	**0.18**	**0.15**	**0.35**	**0.68**	**4.4**

* DE Older age groups compared because of later graduation

The education attainment level of fathers and mothers

It would be expected that the education level of mothers would be relatively similar to that of fathers in general. This is indeed the case in most Member States, in that the education level of the fathers and mothers reported by those surveyed in the EU-SILC is fairly closely correlated. In three Member States – Cyprus, Lithuania and Poland – the correlation coefficient is over 0.7, in another 8 (five of them new Member States), it is over 0.6 and in another 8, over 0.5 (Table 6).

Table 6 Correlation between education levels of fathers and mothers

	Correlation coefficient
BE	0.61
CZ	0.50
DK	0.42
DE	0.45
EE	0.61
IE	0.64
GR	0.65
ES	0.52
FR	0.56
IT	0.55
CY	0.72
LV	0.63
LT	0.72
LU	0.57
HU	0.65
NL	0.51
AT	0.39
PL	0.73
PT	0.58
SI	0.62
SK	0.65
FI	0.55
SE	0.56
UK	0.48

Only in Belgium, Denmark, Germany, Austria and the UK is the correlation coefficient less than 0.5. In these countries, therefore, there would appear to be a greater tendency than elsewhere for people to marry someone with a different level of education than their own – or at least, this was the case when the parents of the people covered by the EU-SILC module got married.

The implication of this relatively close correlation in most countries is that it may not matter too much to the inferences drawn which parent's education level is taken to assess the link between the education levels of successive generations. In other words, conclusions about the strength of this link made on the basis of the education level of the father ought not to change much if the mother's education level is taken instead. The correlation between the education levels of the two parents is, however, not close enough merely to assume this and the next section,

therefore, examines the influence of mothers' education levels on that of their sons and daughters.

The link between the education level of mothers and their children

MEN AND WOMEN AGED 25-64

Partly because there is a relatively close correlation between the education attainment level of fathers and mothers, the education level of men and women is also closely linked to that of their mother as well as of their father.

The countries in which the odds ratio of someone having tertiary education if their mother had this level of education as compared with only basic schooling is highest in the same countries in which the odds ratio measured in respect of their father's education is highest – i.e. – the Czech Republic, Hungary, Poland, Slovenia, Slovakia, Italy and Portugal (Table 7 which can be compared with Table 1 above).. Equally, the countries where the odds ratio is lowest when measured in terms of the education of fathers are also the countries with the lowest ratio when measured in terms of the education level of mothers – i.e. Germany, Finland, the UK, Estonia, Sweden and the Netherlands.

Table 7 Probability of attaining High education, of men and women, aged 25-65 by education level of mother

		Highest education attained by mother			Odds ratio	Odds ratio
Country	No mother	Low	Medium	High	High/ Low	High/No mother
CZ	0.06	0.06	0.17	0.57	9.9	10.0
PL	0.08	0.08	0.28	0.73	9.7	8.7
SI	0.07	0.06	0.25	0.48	7.9	6.5
HU	0.13	0.08	0.27	0.63	7.8	4.9
IT	0.07	0.10	0.42	0.63	6.4	9.0
SK	0.13	0.10	0.24	0.59	5.9	4.6
PT	0.08	0.12	0.48	0.67	5.7	8.4
LV	0.11	0.11	0.27	0.56	5.3	5.2
LU	0.13	0.17	0.45	0.86	5.2	6.4
AT	0.16	0.14	0.34	0.68	4.9	4.1
GR	0.15	0.17	0.50	0.71	4.1	4.7
LT	0.10	0.17	0.34	0.64	3.9	6.1
CY	0.15	0.22	0.61	0.83	3.8	5.5
IE	-	0.23	0.63	0.77	3.4	-
EU-25	**0.14**	**0.20**	**0.39**	**0.68**	**3.4**	**4.7**
FR	0.06	0.22	0.56	0.74	3.3	12.0
ES	0.18	0.25	0.61	0.76	3.1	4.2
BE	0.20	0.27	0.61	0.83	3.1	4.2
EE	0.15	0.21	0.34	0.58	2.8	3.8
NL	0.23	0.28	0.54	0.72	2.6	3.2
SE	0.22	0.26	0.51	0.62	2.4	2.7
DK	-	0.23	0.35	0.55	2.4	-
UK	-	0.31	0.59	0.71	2.3	-
FI	0.20	0.29	0.44	0.61	2.1	3.0
DE	0.22	0.34	0.42	0.62	1.8	2.9

Moreover, the influence of the education level of mothers on that of their children seems to be much the same for daughters as for sons, though overall there seems to be slightly more of an influence on daughters than sons. The odds ratio for daughters having tertiary education if their mother had this level of education as compared with if their mother had only basic schooling is, therefore, higher than for sons in 16 of the 24 Member States and the same in two (France and Finland) (Tables 8 and 9). Only in 6 Member States, therefore (all three of the Baltic States, Portugal, Greece and Sweden), is the odds ratio greater for sons than daughters.

Table 8 Probability of attaining High education level for women, aged 25-65, by mother's education level

		Highest education attained by mother			Odds ratio	Odds ratio
Country	No mother	Low	Medium	High	High/ Low	High/No mother
CZ	0.03	0.04	0.15	0.57	14.1	19.5
PL	0.08	0.08	0.33	0.80	9.7	9.5
HU	0.13	0.08	0.30	0.70	9.2	5.4
SI	0.08	0.06	0.30	0.56	9.1	6.9
SK	0.18	0.09	0.24	0.66	7.1	3.6
IT	0.06	0.09	0.43	0.65	6.9	10.5
AT	0.11	0.10	0.31	0.66	6.7	5.9
LU	0.18	0.15	0.39	0.89	5.9	5.0
LV	0.11	0.13	0.35	0.65	5.2	6.0
PT	0.09	0.15	0.60	0.75	5.1	8.5
CY	0.16	0.20	0.58	0.84	4.2	5.2
GR	0.12	0.17	0.51	0.66	3.8	5.4
LT	0.12	0.19	0.43	0.72	3.8	6.1
EU-25	**0.14**	**0.19**	**0.38**	**0.71**	**3.7**	**5.2**
IE	-	0.21	0.59	0.78	3.6	-
FR	0.11	0.23	0.57	0.77	3.3	7.3
ES	0.12	0.24	0.61	0.81	3.3	6.8
BE	0.22	0.27	0.62	0.85	3.2	3.9
NL	0.24	0.23	0.50	0.67	2.9	2.7
DK	-	0.26	0.39	0.66	2.5	-
EE	0.21	0.26	0.42	0.66	2.5	3.2
DE	0.20	0.26	0.36	0.65	2.5	3.2
UK	-	0.31	0.57	0.75	2.4	-
FI	0.24	0.33	0.53	0.69	2.1	2.9
SE	0.22	0.31	0.56	0.66	2.1	3.0

Table 9 Probability of attaining High education level for men, aged 25-65, by mother's education level

		Highest education attained by mother			Odds ratio	Odds ratio
Country	No mother	Low	Medium	High	High/ Low	High/No mother
CZ	0.09	0.08	0.18	0.58	7.7	6.4
PL	0.08	0.07	0.23	0.65	9.7	8.0
HU	0.13	0.09	0.24	0.57	6.4	4.3
SI	0.07	0.06	0.20	0.41	6.9	5.9
SK	0.08	0.11	0.23	0.52	4.8	6.4
IT	0.08	0.10	0.40	0.60	6.0	7.9
AT	0.22	0.18	0.37	0.70	3.9	3.2
LU	0.08	0.18	0.51	0.83	4.6	10.1
LV	0.11	0.08	0.16	0.48	5.7	4.4
PT	0.07	0.09	0.38	0.58	6.4	8.2
CY	0.14	0.23	0.65	0.82	3.5	6.0
GR	0.19	0.18	0.49	0.76	4.3	4.0
LT	0.09	0.14	0.26	0.56	4.1	6.4
EU-25	**0.15**	**0.21**	**0.41**	**0.64**	**3.1**	**4.3**
IE	-	0.24	0.67	0.75	3.1	-
FR	0.03	0.21	0.56	0.70	3.3	23.1
ES	0.24	0.25	0.60	0.72	2.9	3.0
BE	0.18	0.26	0.61	0.80	3.0	4.5
NL	0.21	0.33	0.57	0.78	2.4	3.7
DK	-	0.20	0.31	0.47	2.3	-
EE	0.10	0.15	0.25	0.49	3.3	5.1
DE	0.23	0.42	0.49	0.59	1.4	2.5
UK	-	0.31	0.60	0.66	2.2	-
FI	0.17	0.26	0.36	0.53	2.1	3.1
SE	0.23	0.21	0.47	0.57	2.8	2.5

BOX: Educational attainment – comparison of results from EU-SILC data with LFS data

A special module of the EU Labour Force Survey in 2000 – on the transition of young people from education into work – also investigated the links between the education level of parents and their children. The results for most countries were similar (Table)

Table Comparison of evidence from EU-SILC module, 2005 and LFS module, 2000

	Odds ratio: Those with tertiary education with father with same level relative to those with father with low education	
	EU-SILC	LFS
Hungary	9.1	16.6
Slovenia	8.0	2.3
Italy	7.7	6.9
Slovakia	6.7	7.6
Greece	4.1	2.4
Austria	3.6	2.9
France	3.3	2.4
Spain	3.3	2.0
Belgium	3.2	3.0
Sweden	2.6	1.9
Finland	2.2	1.1

Note: The results reported for the LFS module in the Eurostat database state only that the calculation is based on the parent's education level without specifying whether this refers to the father or mother or both. The EU-SILC results shown relate to the father's education level but they would be much the same if the mother's education level was taken instead.

The main exception is Slovenia which is reported by the LFS module to have a relatively low odds ratio but by the EU-SILC to have a relatively high one. Greece is also recorded as having a lower odds ratio by the LFS than by the EU-SILC, as is Finland (where the LFS indicated an odds ratio of close to 1 rather than 2). On the other hand, the odds ratio in Hungary was reported by the LFS to be substantially higher than calculated from EU-SILC data, though since the relative number with low education is small, a minor difference in this can lead to a big difference in the odds ratio calculated.

OCCUPATIONAL LINKS

The same kind of analysis can be carried out for occupations. The EU-SILC module, therefore, makes it possible to examine the closeness of the link between the occupations of men and women aged 25-65 and those of their parents. This as relevant as the link between education levels since the kind of job which a person does tends to determine both their status in society and their level of income and living standards.

While there tends to be a relatively close correlation between education levels and occupations, implying that the conclusions reached above as regards the link between education levels of children and their parents should also to apply to occupations, the correlation is not perfect. This can be seen if occupations are divided into five groups – managers, professionals and technicians (ISCO 1, 2 and 3); clerks or office workers (ISCO 4), sales and services workers (ISCO 5), skilled manual workers (ISCO 7 and 8 – craftsmen and machine operators) and elementary

workers, including agricultural workers (ISCO 6 and 9) and related to the broad educational attainment levels of fathers[71].

Table 10 Correlation between the education level and occupation of fathers

	Correlation coefficient
DK	0.71
AT	0.68
CY	0.67
SE	0.66
HU	0.65
LT	0.63
SI	0.63
BE	0.62
LV	0.62
PL	0.62
EE	0.60
FI	0.60
SK	0.58
PT	0.58
ES	0.58
NO	0.56
LU	0.56
CZ	0.55
GR	0.55
IT	0.54
FR	0.53
DE	0.49
IS	0.47
NL	0.44
UK	0.38
IE	0.30

Note: Occuaptions are divided into 5 groups, as described in the text

While the correlation is relatively close in nearly all countries – though less so for Ireland and the UK than for the other countries – there is still room in most countries for the two to have an independent effect on a person's status (Table 10). It is, however, of interest to examine the link between the occupations of children and their parents separately from that between education levels, not least because it gives a guide to the relative earnings of the parents concerned and, accordingly, to the income of the household when the people surveyed were young. The focus is on the influence of the father's occupation rather than the mother's since in many countries a large number of the mothers concerned were not in paid employment during the period when the people surveyed were young teenagers (which is up to some 50 years ago), especially in the EU15 countries.

The focus is also on the highest level of occupation in the ISCO classification, that of managers, professionals and technicians, which are considered together as one group to allow for

[71] As explained below, since most mothers in many countries were not in employment when the respondents were young, the analysis can only really be conducted across the EU in terms of the occupation of fathers.

differences in the classification of particular jobs between countries within this category (where it is often difficult to determine in which of the three categories some jobs should be classified). The link between the probability of someone being employed in these jobs and the occupation of their fathers is examined, first, for men and women aged 25-64 taken together and secondly, for men and women considered separately.

The occupations of men and women and those of their fathers

MEN AND WOMEN AGED 25-64

The proportion of those aged 25-64 who are employed as managers, professionals and technicians varied markedly across the EU, from 25% in Portugal to 51-52% in Germany and the Netherlands. The proportion employed in this occupational group whose father was also in such a job, however, varies much less widely. In all Member States without exception, the proportion is over 50% and in 15 of the 24 countries for which data are available, over 60% (Table 11). There is, moreover, in all Member States a much greater chance of someone being employed in such jobs if their father had the same kind of job than if he had a lower level occupation (i.e. if the probability is compared with those with fathers with occupations other than managers, professionals and technicians).

The odds ratio concerned, therefore, average around 2 across the EU as a whole, signifying that someone whose father had a job in this occupational group was over twice as likely themselves to have such a job as other people. The value of the ratio, however – and accordingly the extent of advantage enjoyed by those whose fathers had a relatively high level job – it differs between countries.

The countries in which the odds ratio is highest include many of the new Member States – Poland, Cyprus, Hungary, the Czech Republic, Slovenia and Latvia. They also include Portugal, Spain, Luxembourg and Greece. Most of the countries – the exception is Spain – are also those where the odds ratio for education levels was also high. Similarly, the countries where the odds ratio is lowest – Germany, the Netherlands, the UK, Ireland, Finland and Denmark – where there is a greater chance than elsewhere in the EU of securing a high level job without having a father with such a job, are also the countries where the odds ratio for education levels was lowest. Nevertheless, it is still the case that even in these countries having a father with a high level job significantly increases the chances of also having this kind of job (i.e. they are around 50% higher or more).

Table 11 Probability of having job as manager, professional or technician for women and men aged 25-65 by occupation of father

	Main occupation of father							
	No father	Man+Prof +Tech	Clerks	Sales +Serv	Skilled manual	Unskilled manual	Total	Odd ratio
PT	0.22	0.61	0.43	0.38	0.19	0.14	0.25	3.07
PL	0.21	0.63	0.39	0.31	0.28	0.16	0.29	2.71
ES	0.22	0.54	0.41	0.29	0.23	0.15	0.26	2.57
CY	0.18	0.61	0.50	0.36	0.25	0.19	0.29	2.46
HU	0.28	0.63	0.43	0.35	0.28	0.18	0.32	2.41
CZ	0.29	0.62	0.36	0.30	0.28	0.23	0.35	2.25
SI	0.29	0.63	0.38	0.40	0.31	0.18	0.33	2.24
LT	0.23	0.60	0.40	0.39	0.29	0.26	0.32	2.22
LU	0.35	0.67	0.56	0.35	0.30	0.26	0.42	2.12
GR	0.26	0.54	0.47	0.32	0.29	0.20	0.30	2.12
LV	0.23	0.55	0.39	0.34	0.29	0.24	0.31	2.07
IT	0.29	0.61	0.46	0.37	0.31	0.24	0.36	2.06
FR	0.25	0.62	0.49	0.37	0.32	0.23	0.39	2.05
AT	0.27	0.51	0.41	0.27	0.26	0.19	0.30	2.05
EU-25	**0.31**	**0.62**	**0.50**	**0.38**	**0.33**	**0.23**	**0.38**	**1.99**
SK	0.32	0.60	0.50	0.36	0.32	0.26	0.37	1.93
BE	0.21	0.57	0.43	0.39	0.28	0.24	0.38	1.93
EE	0.30	0.58	0.38	0.32	0.34	0.27	0.37	1.84
SE	0.34	0.60	0.47	0.54	0.28	0.32	0.39	1.84
DK	-	0.62	0.50	0.45	0.37	0.31	0.44	1.73
FI	0.38	0.65	0.53	0.59	0.41	0.30	0.44	1.70
IE	-	0.52	0.52	0.43	0.34	0.19	0.40	1.66
UK	-	0.61	0.54	0.38	0.30	0.27	0.42	1.62
NL	0.44	0.65	0.56	0.48	0.42	0.40	0.52	1.48
DE	0.41	0.65	0.56	0.50	0.44	0.40	0.51	1.46

The occupation of fathers and that of sons and daughters

The father's occupation has a significant influence on the kind of job that both their sons and daughters do, though there is some tendency for the influence to be greater in respect of sons than daughters (Tables 12 and 13).

This is the case both over the EU as a whole and in most countries. The exceptions are Cyprus, Luxembourg, France, Sweden and the UK, where the influence on daughters is greater than the influence on sons – though in each case the difference is relatively small – and Belgium, Denmark, Finland, Ireland and Germany, where the influence is much the same. The influence on sons as compared with daughters is particularly large in Poland, Latvia, the Czech Republic and Lithuania. Indeed, although there are a few exceptions, the influence of the occupation of their father on the jobs held by men in particular tends to be larger in the new Member States and in the southern countries than in the rest of the EU.

Table 12 Probability of having job as manager, professional or technician for men aged 25-65 by occupation of father

	Main occupation of father							
	No father	Man+Prof +Tech	Clerks	Sales +Serv	Skilled manual	Unskilled manual	Total	Odds ratio
PL	0.15	0.58	0.35	0.29	0.21	0.12	0.23	3.25
PT	0.24	0.66	0.42	0.41	0.20	0.15	0.27	3.20
ES	0.26	0.59	0.46	0.30	0.23	0.15	0.28	2.76
LV	0.17	0.50	0.28	0.22	0.20	0.18	0.24	2.65
HU	0.27	0.58	0.37	0.35	0.23	0.14	0.28	2.63
CZ	0.22	0.61	0.33	0.22	0.24	0.22	0.32	2.56
LT	0.18	0.53	0.37	0.31	0.22	0.18	0.25	2.55
SI	0.25	0.61	0.40	0.34	0.27	0.17	0.30	2.44
CY	0.25	0.68	0.58	0.36	0.29	0.23	0.32	2.43
GR	0.21	0.55	0.48	0.30	0.26	0.20	0.29	2.28
IT	0.28	0.62	0.43	0.37	0.29	0.24	0.34	2.21
AT	0.30	0.61	0.50	0.30	0.32	0.21	0.35	2.13
SK	0.27	0.53	0.46	0.26	0.25	0.21	0.31	2.10
EU-25	**0.30**	**0.64**	**0.52**	**0.40**	**0.31**	**0.22**	**0.38**	**2.08**
EE	0.26	0.51	0.21	0.21	0.26	0.18	0.30	2.07
LU	0.34	0.74	0.65	0.47	0.36	0.25	0.47	2.06
FR	0.29	0.66	0.52	0.46	0.35	0.25	0.42	1.95
BE	0.23	0.60	0.49	0.35	0.30	0.24	0.39	1.95
SE	0.34	0.61	0.60	0.65	0.29	0.38	0.41	1.76
DK	-	0.62	0.54	0.46	0.36	0.30	0.44	1.74
FI	0.39	0.64	0.62	0.66	0.40	0.31	0.44	1.69
IE	-	0.60	0.63	0.50	0.39	0.23	0.47	1.65
NL	0.44	0.71	0.58	0.51	0.44	0.43	0.56	1.57
UK	-	0.62	0.59	0.43	0.28	0.30	0.45	1.52
DE	0.39	0.67	0.60	0.59	0.44	0.38	0.52	1.50

Table 13 Probability of having job as manager, professional or technician for women aged 25-65 by occupation of father

	Main occupation of father							
	No father	Man+Prof +Tech	Clerks	Sales +Serv	Skilled manual	Unskilled manual	Total	Odds ratio
PL	0.26	0.67	0.43	0.34	0.34	0.21	0.34	2.37
PT	0.21	0.56	0.43	0.35	0.19	0.13	0.24	2.91
ES	0.17	0.48	0.35	0.27	0.22	0.16	0.25	2.35
LV	0.28	0.59	0.52	0.46	0.37	0.29	0.37	1.78
HU	0.30	0.68	0.49	0.35	0.34	0.21	0.36	2.26
CZ	0.35	0.63	0.40	0.39	0.31	0.24	0.38	2.03
LT	0.28	0.67	0.43	0.47	0.35	0.32	0.38	2.03
SI	0.33	0.64	0.36	0.46	0.35	0.19	0.36	2.06
CY	0.11	0.54	0.44	0.35	0.21	0.15	0.25	2.57
GR	0.31	0.53	0.46	0.35	0.33	0.20	0.32	1.95
IT	0.29	0.60	0.50	0.36	0.34	0.26	0.37	1.90
AT	0.23	0.37	0.30	0.23	0.18	0.17	0.23	1.90
SK	0.35	0.66	0.54	0.43	0.38	0.30	0.42	1.83
EU-25	**0.33**	**0.60**	**0.47**	**0.35**	**0.34**	**0.24**	**0.38**	**1.90**
EE	0.33	0.63	0.53	0.41	0.40	0.34	0.43	1.70
LU	0.35	0.60	0.47	0.18	0.24	0.26	0.37	2.24
FR	0.21	0.59	0.46	0.28	0.29	0.20	0.35	2.18
BE	0.19	0.54	0.37	0.44	0.27	0.23	0.36	1.92
SE	0.33	0.59	0.38	0.42	0.27	0.26	0.37	1.96
DK	-	0.63	0.46	0.44	0.37	0.33	0.45	1.72
FI	0.38	0.66	0.45	0.53	0.43	0.30	0.44	1.72
IE	-	0.45	0.46	0.36	0.30	0.16	0.34	1.63
NL	0.45	0.58	0.55	0.43	0.40	0.38	0.49	1.36
UK	-	0.60	0.49	0.34	0.31	0.24	0.40	1.74
DE	0.44	0.64	0.52	0.41	0.44	0.43	0.51	1.44

The relative importance of fathers' education levels and occupations on their children

Given the correlation between the two variables, the question arises as to whether the occupation of their father has a more important influence on the job which someone does than the educational attainment level or whether the latter is more important. This question can be addressed by comparing the odds ratio of men and women whose fathers had tertiary education having a job as a manager, professional or technician relative to those whose father had a lower education level with the odds ratio of them having such a job if their father had this kind of job relative to if their father had a lower occupation level.

This comparison indicates, first, that there is not much difference between the two odds ratios and, secondly, in most countries, the odds ratio in relation to the fathers' education level is slightly higher than the odds ratio in relation to the fathers' occupation (Table 14). In other words, the education level of someone's father seems in general to have more of an influence on the job they do than their father's occupation – or, more precisely, a person seem to have more chance of having a high level if their father had a tertiary level of education than if their father also had a high level job.

Table 14 Probability of men and women, 25-65, having occupation as manager, professional or technician by education/occupation of father

	Education level of the father					Odds ratio, occupation of father (from Table 11)
	No father	Low (%)	Medium (%)	High (%)	Odds ratio, High/other	
BE	21	28	47	64	2.0	1.9
CZ	29	18	36	77	2.4	2.3
DK	-	31	47	65	1.7	1.7
DE	41	37	50	64	1.4	1.5
EE	30	27	44	62	1.9	1.8
IE	-	35	56	70	1.9	1.7
GR	25	26	53	63	2.2	2.1
ES	20	22	43	61	2.6	2.6
FR	25	34	59	77	2.2	2.1
IT	29	32	60	72	2.1	2.1
CY	17	23	46	65	2.5	2.5
LV	24	25	39	65	2.3	2.1
LT	23	25	42	68	2.4	2.2
LU	36	29	54	81	2.1	2.1
HU	28	20	38	75	2.6	2.4
NL	45	45	64	80	1.6	1.5
AT	30	23	37	64	2.3	2.0
PL	18	19	39	77	2.9	2.7
PT	22	22	70	74	3.1	3.1
SI	29	21	49	74	2.3	2.2
SK	32	26	41	71	2.1	1.9
FI	40	38	52	71	1.8	1.7
SE	34	38	63	71	1.7	1.8
UK	-	36	48	70	1.8	1.6

The link between the financial circumstances of parents and their children

As noted above, the EU-SILC module did not specifically include information on the income level of parents. It did, however, include a question on their general financial circumstances, in the sense that people were asked to say whether or not their families experienced financial difficulties when they were young. Although this question is subjective, it provides some insight into the links between the income levels of parents and their children. On the other hand, the value of the data obtained from the question is limited by the fact that it was voluntary and was not asked in Germany, Greece and Portugal. Moreover, in those countries in which it was asked, the form differed slightly between countries – in France, it was asked in a completely different form making the results not comparable with those elsewhere[72]. In addition, there was a large

[72] Whereas in other countries, respondents were asked to assess the financial situation of the household in which they grew up in terms of whether it was good or bad, in France they were asked to compare their current financial situation with that of their family when they were young.

number of non-responses in all countries, in some cases only a minority of those surveyed replying to the question.

The responses indicate that in nearly all countries, the probability of having a poverty level of income is greater among those whose family had financial difficulties when they were young than among those where this was not the case. This tends to be all the more so in respect of people whose families always had financial problems as compared with those whose families never did. The only exceptions are Slovakia and Sweden where the response rates were particularly low and where, accordingly, there is a serious questionmark over the representativeness of the data (Table 15). Indeed, in most of the countries where the odds ratio is relatively low, the response rate is also low, which makes it difficult to determine how far the figures reflect the reality. The main exception is Finland, where the proportion of people with income below the poverty line whose family had financial difficulties is only around 20% higher than for other people.

Table 15 Proportion of people aged 25-65 with income below poverty line by financial situation of their family when young

	% with income <60% of national median Family had financial problems (at age 12-16)*				Odds ratio		Response rate
	Often or always	Sometimes	Rarely or never	Sometimes, rarely or never	"Always" relative to "Never"	"Always" relative to "Sometimes or never"	%
BE	20	16	9	10	2.3	2.0	67
CZ	13	9	9	9	1.5	1.5	67
DK	10	9	7	8	1.3	1.3	36
EE	21	16	14	15	1.5	1.4	61
IE	27	15	12	13	2.2	2.1	64
ES	19	19	14	15	1.4	1.3	63
IT	20	15	9	12	2.2	1.7	44
CY	18	11	8	10	2.3	1.9	67
LV	23	17	15	16	1.6	1.5	67
LT	23	19	16	17	1.5	1.4	61
LU	23	12	8	9	3.0	2.7	64
HU	15	12	11	11	1.4	1.4	71
NL	12	10	8	8	1.5	1.4	66
AT	13	9	10	10	1.2	1.3	37
PL	24	20	16	18	1.5	1.3	69
SI	12	8	10	9	1.3	1.4	64
SK	12	13	12	12	1.0	0.9	23
FI	13	11	10	10	1.3	1.2	67
SE	8	7	8	7	1.0	1.1	33
UK	16	14	13	13	1.2	1.2	32

** BE: 14 years old; EE, HU, SI: financial.difficulties; IE: severe financial.problems; IT, SE, NO: economic problems; CY, AT: finacial situation very good to very bad; FI: difficulties making ends meet.*

The countries in which the financial circumstances of someone's parents seem to have most influence on whether or not they have a poverty-level of income are not entirely the same as those in which education levels or occupations are affected most by those of parents, which might be attributable in part to low response rates. While, therefore, in Luxembourg, Cyprus and Italy, where there seems to be a relatively close link between the financial situation of successive generations, the education level and occupation of parents also have larger than average effect on those of their children, this is not so for Belgium and Ireland, where there also seems to be a close link. Equally, the link seems to be less close than elsewhere in Finland, Sweden, the UK and Denmark, all countries in which the education level and occupation of parents seem to have a relatively small (though still significant) effect on those of their children.

Concluding remarks

The evidence collected by the special EU-SILC module indicates clearly that constraints remain on social mobility across the EU and that these are more important in some countries than others, especially in many of the new Member States.

So far as education attainment levels are concerned, it is evident that the education level attained by both men and women is very much influenced by that attained by their father in all EU Member States. At the same time, the influence of their mother's education level is no less significant, which partly reflects the relatively close correlation between the education levels of mothers and fathers, making it difficult to disentangle the relative importance of one as opposed to the other.

There are, however, marked differences in the scale of the influence between countries whichever parent is considered. It seem particularly large, in a number of the new Member States – the Czech Republic, Hungary, Poland, Slovenia, Slovakia and Cyprus – and also relatively big in Greece, Italy and Portugal. On the other hand, the influence of the parent's level of education on the education level of their children appears to be smaller in Finland, Germany and Estonia, in particular, than in other countries

At the same time, the influence of parents' education levels on that of their children seems to have diminished over the long-term in most countries, though this is less clear-cut in a number of Member States where the influence seems to be strongest – in the Czech Republic, Hungary and Poland, in particular.

It is equally the case that both men and women have significantly more chance in all countries of obtaining a high level job, as a manager, professional or technician, if their father had the same kind of job than if they were in any other occupation. In most countries, however, the

influence on sons is greater than on daughters, especially in the new Member States and the southern EU countries.

The information collected on the financial circumstances of the households in which people lived when they were young, despite the low response rates and differences in the form which the question was asked across countries, confirms the implications of the evidence on the links between education levels and occupations of parents and their children. In nearly all Member States in which the information was obtained, therefore, the chances of having an income below the poverty line tend to be greater for those coming from families which faced financial difficulties than from those which did not.

CHAPTER 9 — DISTRIBUTIONAL EFFECTS OF PUBLICLY-FUNDED CHILDCARE

INTRODUCTION

Public policies aimed at securing access to affordable childcare are a key ingredient of a broader set of strategies at the European and national level for reconciling work and family life, promoting equal opportunities and combating social exclusion.

The policy instruments used to achieve this aim vary. Central and local governments themselves directly operate childcare facilities for families with children of pre-school age at (often heavily) subsidised prices. Alternatively, governments may also indirectly ensure provision by funding or supporting services purchased from private childcare providers (e.g. through childcare-related tax concessions and cash benefits to parents).

In both cases, the intended aim is to make childcare more affordable, especially for low-income families who might not be able to use it if they had to pay the full-cost of it. However, we know little about exactly how subsidies or publicly-provided childcare are distributed between households and whether or not low-income families benefit more than, or even as much as, families further up the income scale.

One way of assessing the distributional effects of subsidised childcare provision is to regard them as benefits in kind and treat them in the same way cash benefits are treated, i.e. as income support to families. The question then becomes just how income distribution is affected by subsidies to childcare.

The aim of this chapter, therefore, is to quantify the distributional effects of subsidies to publicly-provided childcare in five EU countries: Belgium, Finland, Germany, Greece and Sweden.

METHODOLOGY

Households using childcare can be identified in the EU-SILC or in other similar surveys. In the present analysis, the EU-SILC for 2005 was used to identify the households concerned in the case of Greece and Sweden, the EU-SILC for 2004 in the case of Belgium (since no data on childcare are available from the 2005 survey), the 2001 (updated to 2003) Income Distribution Survey in the case of Finland and the 2002 Socio-Economic Panel (SOEP) in the case of Germany.

Only formal, registered, centre-based childcare is included in the analysis. (In the EU-SILC, for example, this corresponds to variables RL010, RL030 and RL040, which means that pre-school (RL010) is included, but primary school (RL020), child minders (RL050) and informal care (RL060) are excluded.)

In general, subsidies are calculated as public expenditure on childcare per child in a subsidised centre, by intensity of use (e.g. full-time vs. part-time), by type of centre (e.g. crèche vs. pre-school), taking account, where possible, of regional and other variations, and measured net of user fees where applicable. The fees paid by users typically depend on family income, family size and/or the number of children receiving care, family type (e.g. single parent) and, sometimes, other characteristics such as whether the family concerned are recipients of social assistance or whether one of the people is a municipal employee.

In order to assign subsidies to users it was necessary first to identify whether the type of childcare facility used by a family in the dsataset was eligible for public funding and then to establish the family-specific level of subsidy (net of user fees). A detailed account of how this was done can be found in the Country Notes in the Annex to this chapter.

Finally, in the spirit of treating benefits in kind as part of a broader concept of income, net childcare subsidies are added to the income of users. After doing this, inequality and risk of poverty indices can then be recalculated, allowing the poverty line to shift, and comparing the results incorporating the subsidies concerned with those excluding them (i.e. with the conventional measures).

More specifically, the distributional impact of childcare subsidies is assessed in terms of (i) the use of subsidised childcare by quintile of equivalised income, (ii) the distribution of childcare subsidies by income quintile, (iii) the share of income represented by childcare subsidies in each quintile, (iv) the effect of childcare subsidies on inequality, and (v) the effect of childcare subsidies on the risk of poverty, as conventionally measured, including in respect of children.

RESULTS

The maximum and average value of childcare subsidies per child, as well as the standard deviation around the average, are shown in Table 1. This indicates that he sums involved can be quite substantial. In Sweden, the average childcare subsidy per child exceeds EUR 10,000 annually; in Belgium the maximum subsidy is estimated at EUR 13,600 a year. In all countries except Sweden, there seems to be considerable variation in the value of subsidies between childcare users.

Table 1 Value of childcare subsidies (EUR)

	Belgium	Finland	Germany	Greece	Sweden
Maximum	13,600	9,066	6,100	3,250	11,250
Average	3,951	6,698	2,447	2,646	10,252
Standard	1,767	2,367	1,230	423	304

Note: Figures are annual public subsidies per child attending publicly-funded childcare.

Patterns of use of centre-based childcare differ considerably between both countries and income groups within countries (Table 2). For instance, as many as two out of three children aged below 6 appear to use formal childcare in Sweden compared to less than one in three in Greece. In the other three countries covered participation rates range from 37% to 49%.

In terms of use by income group, the highest proportion of users in Finland, Greece and Sweden is found in income quintile 5 (richest), while in Belgium and Germany in quintile 4. In contrast, participation rates in income quintile 1 (poorest) are significantly lower than average in Finland and Greece, and somewhat below average in Belgium and Sweden. Only in Germany do low-income families appear to use childcare as much as families with little children as a whole.

Table 2 Use of childcare (% of children under 6)

	Belgium	Finland	Germany	Greece	Sweden
Quintile 1 (poorest)	43.7	20.8	40.1	19.4	57.9
Quintile 2	47.9	28.9	33.5	24.9	64.1
Quintile 3	52.6	40.7	37.6	25.0	69.8
Quintile 4	54.8	48.4	52.6	33.3	69.4
Quintile 5 (richest)	43.2	51.8	41.2	40.3	71.5
All	48.7	37.2	40.1	29.6	66.4

Households with children are ranked by quintile of net disposable income and adjusted for household size and composition by using the modified OECD equivalence scale (assigning a value of 1.0 to the first adult, 0.3 to children below 14 and 0.5 to other household members).

Table 3 reports the proportion of families with children below 5 using publicly-funded childcare facilities, who accordingly benefit from subsidies. Comparing Table 3 to Table 2 above shows that excluding users of private, non-subsidised childcare facilities lowers participation rates in Greece and (slightly) in Belgium, but has no effect in the other three countries, indicating that the use of private factilties is negligible in Finland, Sweden and Germany.

Table 3 Use of publicly-funded childcare (% of children under 6)

	Belgium	Finland	Germany	Greece	Sweden
quintile 1 (poorest)	43.7	20.8	40.1	19.4	57.9
quintile 2	47.9	28.9	33.5	21.2	64.1
quintile 3	51.1	40.7	37.6	16.9	69.8
quintile 4	54.8	48.4	52.6	23.5	69.4
quintile 5 (richest)	41.8	51.8	41.2	27.3	71.5
All	48.1	37.2	40.1	22.2	66.4

Again, it is evident that the proportion of families with children under 6 receiving childcare benefits in kind varies significantly not only between but also within countries. It is above 50% in quintiles 3 and 4 in Belgium, in quintile 5 (i.e. among those with the highest incomes) in Finland, and in quintile 4 in Germany. It is well below 50% in all income quintiles in Greece – indeed, well below 30% – as well as in most quintiles in Finland and Germany; and it is above 50% throughout the income distribution in Sweden.

Table 4 shows the distibution of public expenditure on childcare subsidies between income groups in the five countries. With the sole exception of Germany (where the poorest income quintile appears to receive the lion's share), public expenditure on childcare subsidies tends to be concentrated towards the middle and top of the income distribution. This becomes clearer if we focus on those income groups having a larger share of total childcare subsidies than their population share (i.e. by definition each quintile represents 20% of the population). More specifically, public expenditure on such subsidies goes disproportionately to quintiles 3 and 4 in Belgium, quintiles 3 to 5 in Finland, quintile 1 (i.e. those with the lowest incomes) in Germany, quintile 2 and, most espeically, quintile 5 (those with highest incomes) in Greece, and quintiles 2-3 in Sweden.

Table 4 Distribution of childcare subsidies (% of total expenditure on childcare)

	Belgium	Finland	Germany	Greece	Sweden
quintile 1 (poorest)	18.7	12.1	36.5	19.2	17.8
quintile 2	15.4	16.8	17.6	21.3	23.0
quintile 3	22.4	23.3	19.7	12.4	24.7
quintile 4	26.9	25.4	17.9	19.1	19.9
quintile 5 (richest)	16.6	22.3	8.3	28.0	14.7
All	100.0	100.0	100.0	100.0	100.0

Note: Public expenditure is net of user fees. Both childcare funding and household disposable incomes are equivalised to adjust for differences in household size and composition.

An alternative way of viewing the distribution of childcare subsidies is by dividing the value of subsidies received by each income quintile not by total spending on childcare subsidies as in

Table 4 above, but by the total income of those included in each quintile. This is presented in Table 5.

Table 5 Childcare subsidies as a share of income (Expenditure as a % of disposable income)

	Belgium	Finland	Germany	Greece	Sweden
quintile 1 (poorest)	3.4	1.7	2.4	1.1	3.6
quintile 2	1.7	1.7	0.8	0.8	2.8
quintile 3	1.9	1.9	0.5	0.4	2.4
quintile 4	1.8	1.6	0.5	0.4	1.6
quintile 5 (richest)	0.7	0.8	0.1	0.4	0.9
All	1.6	1.4	0.6	0.6	2.3

Note: Public expenditure is net of user fees. Both childcare funding and household disposable incomes are equivalised to adjust for differences in household size and composition.

Not unexpectedly, the distribution of childcare subsidies in relation to disposable income is progressive in all countries. With the exception of Finland (where the relative value of childcare subsidies seems to be highest in quintile 3), the contribution of such subsidies to net disposable income in the other four countries is much more significant in quintile 1 (those with the lowest incomes) than further up the income distribution.

If childcare benefits in kind are treated the same way as benefits in cash, that is as additions to monetary income, the question then arises as to their effect on income inequality.

Table 6 provides a partial answer to this question, by examining the effects of childcare subsidies on three inequality indices: (i) the Gini coefficient, which is sensitive to changes around the middle of the distribution; (ii) the Atkinson index with the value of the inequality aversion parameter ϵ set equal to 0.5; and (iii) the Atkinson index with the value of the inequality aversion parameter ϵ set equal to 1.5, indicating greater concern for the position of those with the lowest incomes.

As Table 6 indicates, income inequality measured by the Gini coefficent declines in all five countries as a result of including childcare subsidies in the definition of income. The same holds with respect to the Atkinson index for $\epsilon = 0.5$, suggesting that the inequality-reducing effect of childcare subsidies is confirmed when a moderate degree of inequality aversion is assumed. On the other hand, assuming a higher degree of inequality aversion (i.e. $\epsilon = 1.5$) yields mixed results, the inequality-reducing effect of childcare subsidies being strengthened in Belgium and Germany, but being reversed in Finland and Sweden as well as, partly, in Greece.

Table 6: Impact of publicly-funded childcare on *inequality*

	Belgium	Finland	Germany	Greece	Sweden
Gini coefficient					
Baseline	0.266	0.269	0.283	0.333	0.232
baseline + subsidies	0.264	0.269	0.280	0.332	0.228
proportional change	*-0.7%*	*-0.04%*	*-0.9%*	*-0.3%*	*-1.4%*
Atkinson (ϵ=0.5)					
Baseline	0.060	0.069	0.066	0.094	0.048
baseline + subsidies	0.059	0.069	0.065	0.093	0.046
proportional change	*-1.9%*	*-0.5%*	*-2.0%*	*-0.6%*	*-4.0%*
Atkinson (ϵ=1.5)					
Baseline	0.241	0.163	0.199	0.245	0.152
baseline + subsidies	0.235	0.164	0.195	0.245	0.153
proportional change	*-2.5%*	*+0.2%*	*-2.2%*	*0.0%*	*+0.7%*

Table 7 examines the distributional effects of childcare subsidies in relation to the risk of poverty among the population as a whole. Three poverty indices are shown: (i) the headcount risk of poverty rate, showing the the proportion of the population with income below the standard poverty line of 60% of median equivalised income; (ii) the poverty gap, showing the average shortfall of the income of those concerned relative to the poverty line as a proportion of their disposable income; and (iii) the weighted poverty gap, calculated by setting the value of the parameter α equal to 2, indicating greater concern for the incomes of those with the lowest incomes.

Table 7 Impact of publicly-funded childcare on poverty

	Belgium	Finland	Germany	Greece	Sweden
Poverty rate					
Baseline	0.154	0.122	0.162	0.196	0.093
baseline + subsidies	0.153	0.129	0.157	0.195	0.106
proportional change	*-0.9%*	*5.0%*	*-2.7%*	*-0.6%*	*14.3%*
Poverty gap (FGT α=1)					
Baseline	0.042	0.022	0.044	0.063	0.030
baseline + subsidies	0.040	0.023	0.042	0.062	0.031
proportional change	*-4.2%*	*5.9%*	*-4.8%*	*-1.3%*	*3.3%*
Weighted poverty gap (FGT α=2)					
Baseline	0.019	0.006	0.019	0.038	0.054
baseline + subsidies	0.018	0.007	0.018	0.037	0.048
proportional change	*-5.8%*	*6.7%*	*-6.4%*	*-3.7%*	*-10.2%*

Note: The poverty line is set equal to 60% of median disposable income, equivalised for household size and composition using the modified OECD scale. The poverty line is allowed to shift when childcare subsidies are included. FGT = Foster Greer Thorbecke.

Crucially, when the net value of childcare subsidies received by families is included in the income definition used here the poverty line is allowed to shift upwards (with the increase in median income). This explains why taking childcare subsidies into account reduces the poverty rate and (unweighted) poverty gap in Belgium, Germany and Greece, but not in Finland and Sweden.

Indeed, in all five countries, adding the value of childcare benefits in kind to monetary incomes results in considerable re-ranking of relative positions: families with children under 6 using publicly-funded childcare have their incomes increased, while for other population groups (e.g. pensioners), income is unchanged in absolute terms but is reduced relative to higher median incomes and, hence, the poverty line. What happens in the case of Finland and Sweden is that the former effect is weaker than the latter – i.e. more pensioners and others without children under 6 have their income reduced below the poverty line (or, more precisely, have the poverty line increased relative to their income) than families with children have their income lifted above it as a result of childcare subsidies.

The relative position of those receiving childcare subsidies is also important. For instance, using the weighted poverty gap measure reverses the sign of the FGT index (for $\alpha = 2$) in Sweden as compared to the unweighted poverty gap, suggesting that the effect of childcare subsidies is relatively strong towards the very bottom of the income distribution.

While Table 7 shows the distributional effects of childcare subsidies in relation to the risk of poverty for the population as a whole, Table 8 shows the effects on the risk of poverty for children alone.

Table 8 Impact of publicly-funded childcare on the risk of poverty among children

	Belgium	Finland	Germany	Greece	Sweden
Poverty rate					
Baseline	0.179	0.107	0.252	0.204	0.094
baseline + subsidies	0.155	0.103	0.233	0.196	0.083
proportional change	*-13.6%*	*-3.5%*	*-7.6%*	*-3.7%*	*-11.5%*
Poverty gap (FGT α=1)					
baseline	0.051	0.016	0.073	0.067	0.030
baseline + subsidies	0.041	0.016	0.063	0.064	0.024
proportional change	*-20.0%*	*-0.7%*	*-12.9%*	*-5.3%*	*-19.1%*
Weighted poverty gap (FGT α=2)					
Baseline	0.024	0.003	0.032	0.045	0.083
baseline + subsidies	0.018	0.003	0.026	0.040	0.070
proportional change	*-22.1%*	*0.0%*	*-16.6%*	*-10.3%*	*-15.6%*

Note: The poverty line is equal to 60% of median disposable income, equivalised for household size and composition. The poverty line is allowed to shift when childcare subsidies are included. FGT = Foster Greer Thorbecke.

The effect of childcare subsidies in reducing the risk of poverty among children appears to be strong in all five countries. The number of children with equivalised income below the poverty line (even though this is now higher than before) is estimated to fall by around 3.5% in Finland and Greece, by 7.5% in Germany and by as much as 11.5-13.5% in Sweden and Belgium.

The child poverty gap declines by 20% in Belgium aand by 19% in Sweden. Finally, accounting for childcare subsidies results in a reduction of the *weighted* child poverty gap by around 10% in Greece, by 15.5% n Sweden, by 16.5% iin Germany and by 22% in Belgium. In Finland, however, it remains much the same.

Overall, the effect of childcare subsidies, as might be expectted, is to reduce the risk of poverty among children more consistently and more significantly than among the population as a whole.

CONCLUSIONS

Childcare subsidies have very different distributional effects across countries. Except in Germany, a greater share of the relevant public spending appears to go to high- and middle-income groups. Nevertheless, the relative contribution of childcare subsidies to the incomes of poorer families (i.e. in terms of income share) is greater than to those of more prosperous families.

Including childcare subsidies in a broader income concept tends to reduce inequality, especially when a moderate degree of inequality aversion is assumed.

Allowing the poverty line to shift when childcare subsidies are added to monetary incomes produces mixed results because of re-ranking. On the one hand, the income position of families using publicly-funded childcare improves both absolutely and relatively as a result of receiving childcare benefits in kind. On the other hand, while obviously the incomes of non-beneficiaries (such as pensioners) remain unchanged in absolute terms, they decline relative to the higher median income and a poverty line which is also higher as a result.

Among the general population, the inclusion of childcare subsidies in income reduces headcount poverty rates and poverty gaps in Belgium, Germany and Greece but not in Finland and Sweden.

For the risk of child poverty, re-ranking effects are less pronounced, negatively affecting only the income position of families without children under 6 and those with children at pre-school age not using publicly-funded childcare. In view of this, accounting for childcare benefits in kind reduces the number of children at risk of poverty and child poverty gaps in all five

countries. The proportional reduction in poverty indicators is largest in Belgium, closely followed by Sweden, and smallest in Finland.

What are the policy implications of the results of the analysis? On the whole, treating childcare benefits in kind as additions to monetary income has the effect of making the distribution of income distribution less unequal and of reducing the risk of poverty, especially among children. Nevertheless, the distributional effects of publicly-funded childcare are, in some cases, adverse, depending on the index used and the country concerned.

For instance, while in, say, Finland the relative poverty rate increased as a result of accounting for childcare subsidies, it would be extremely simplistic to conclude from this that an easy way of reducing the risk of poverty would be to abolish publicly-funded childcare. In reality, no-one was worse of as a result of treating childcare benefits in kind as additions to monetary income, nor could they be. The proportion of people with income below the poverty line increased only because the line itself increased. It is easy to see that abolishing publicly-funded childcare would result in greater inequality and more people with low incomes everywhere, especially if the funds themselves are raised through progressive income taxes.

In any case, it is important to note that the results are driven to a large extent by patterns of use. The reason why the distributive effects of publicly-funded childcare are not greater is that low-income familes with children of pre-school age do not use childcare services as much as similar families higher up the income scale. By implication, improving the availability of, and access to, childcare would be the best way of increasing its redistibutive effects in all countries.

Furthermore, it is also necessary to distinguish between a static analysis of the distribution of incomes with and without childcare subsidies, as presented here, and a fuller analysis of the redistributive effects of publicly-funded childcare, including its dynamic effects. In the real world, by ensuring access to affordable childcare services governments enable low-income families to improve their living standards not only by not charging below-market fees for this, but in dosing so, releasing parents (typically mothers) from family duties so they can take up paid employment.

In this sense, it is in a dynamic perspective (*via* the employment of the mothers concerned) that the contribution of childcare to social inclusion can be best examined. Accounting for dynamic effects, though beyond the scope of the present study, is not impossible and should be the subject of further research.

The point made above is a reminder of the fact that the the main purpose of publicly-funded childcare is to help parents, predominantly mothers, strike a better balance between family responsibilities and the demands of their career. In this way, improving access to, and the

availability of, affordable childcare would help achieve higher female employment rates, which should in turn lead to greater prosperity and a more equitable distribution of income.

Finally, public funding of childcare can also be seen as a means of redistributing incomes horizontally, i.e. from single persons and couples without children to families with children. This is especially the case if children are seen, to some extent, as 'public goods', bringing benefits not only to their own family but to society as a whole. Insofar as this is the case, the wider society should by implication help families bring up children by helping to cover some of the costs involved.

In conclusion, publicly-funded childcare can be justified on the grounds that it promotes equality, broadly defined: equality between men and women, equality between families with children and those without, as well as equality of incomes, particularly in a dynamic perspective.

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APPENDIX: PUBLICLY-FUNDED CHILDCARE PROVISION IN THE SELECTED COUNTRIES

BELGIUM

Coverage and institutional structure

In Belgium childcare policy is the responsibility of the Flemish, French and German Communities. Centre-based childcare in government-supervised crèches is subsidised; independent and mini-crèches are not. Child minder services is also partly subsidised.

Table A.1 gives an overview of childcare provision to children aged under 3 in Flanders.

Table A.1

Type of provision	% of total
Informal	34.8
Grandparents	*31.0*
Other family member	*2.0*
Other	*1.7*
Subsidised	37.2
Crèche	*24.9*
Child minder	*11.5*
Other	*0.8*
Independent	26.4
Crèche	*14.4*
Child minder	*11.8*
School care after school hours	1.6
Total	100.0

Note: Van Keer et al. (2004).

Table A.2 indicates the extent of use of childcare by children under 3 in Flanders.

Table A.2

Type of use	%
Regular use	55.7
Full time	16.2
Part-time	39.5
full-day, < 5 days	*23.5*
part-day, 5 days	*0.7*
part-day, < 5 days	*2.4*
some full-, some part-days	*12.8*
Limited use	16.2
No use	39.5
Total	100.0

Note: Van Keer et al. (2004).

From the age of 2½ children can enrol at pre-primary school and the participation rate for children aged 3 to 6 is nearly 100%.

Fees and subsidies

In the case of subsidised childcare institutions, parental fees are set by the Communities. In both the Flemish- and the French-speaking Communities, day care fees are a function of parental income, subject to a minimum and a maximum. Moreover, there is a discount for the presence of extra children. The definition of income, the minimum and maximum levels and the discount for extra children differ slightly between the two communities. Fees also vary with the number of hours of care.

According to Schoenmaekers et al. (2006) the subsidy per day in a subsidised crèche amounts to EUR 56.11 per child. Assuming that childcare is used for 45 weeks per year, the annual subsidy is equal to EUR 2,525 for each day per week in childcare (i.e. the maximum annual subsidy is equal to EUR 12,625 for a child in full-time childcare). As no subsidy data are available for the French-speaking community, the Flemish figures have been extrapolated to the whole of Belgium.

The dataset used is the Belgian version of EU-SILC 2004 (2003 incomes). Note that the SILC questionnaire asks parents to distinguish between subsidised or non-subsidised types of childcare and it also contains information on the intensity of childcare use.

In the case of pre-primary education the amount reported in OECD (2006a) is used, namely EUR 3,500 a year per child.

Assessing the effects of publicly-provided childcare in Belgium: the methodology

1. Identify households with children aged 0-3. Select those using day care in subsidised crèches on the basis of information available in the EU-SILC dataset. Assign users the implicit net subsidy of EUR 56.11 per day per child.
2. Identify households with children aged 3-5. All children of that age are assumed to be at pre-school. Assign them the implicit net subsidy of EUR 3,500 pa per child.
3. Raise users' monetary incomes by the level of the implicit net subsidy. Recalculate inequality and poverty, allowing the poverty line to shift. Compare to baseline.

FINLAND

Coverage and institutional structure

Pre-primary education in Finland starts at age 6. In view of this, only day care provided by municipal councils is included in the analysis. Table A.3 below shows participation rates by age in various forms of childcare or support to families with children at pre-school age.

Table A.3

Form of childcare	% of age group		
	children aged 0-3	children aged 3-6	all
Child home care allowance	42.7	14.5	26.4
Private childcare allowance	2.1	4.6	3.5
Parenthood allowance	29.2	0.0	12.3
Municipal family day care	11.4	16.5	14.4
Municipal day care centre	10.7	46.8	31.6
Other	3.9	17.6	11.8

Note: Ministry of Social Affairs and Health (2005). Figures refer to December 2003.

Fees and subsidies

Childcare provided in municipal day care centres is subsidised. Gross childcare costs – and, therefore, net subsidies – are estimated indirectly from user fees as follows.

User fees are set as a proportion of family income in excess of a certain threshold. Both the proportion and the threshold vary with family size, as explained in Table A.4.

Table A.4

Family size	Monthly income threshold (EUR)	Fees as % of family income in excess of threshold
2	918	11.5
3	1,132	9.4
4	1,344	7.9

Note: Viitamäki (2004). Family size is defined as number of parent(s) plus number of children aged 0-6. The monthly income threshold is raised further by EUR 89 per child aged 7-18. Maximum fees also apply, depending on the number of children in day care: EUR 200 per month for the first child, EUR 180 per month for the second child. Moreover, families with three or more children are entitled to lower fees for each child after the second, set at 20% of the fee of the first child.

The average fee per family using municipality day care, as simulated in the European tax-benefit model EUROMOD, is estimated at EUR 164.04 per month. Since the average number of

children in day care per family using childcare is 1.41, it follows that the average monthly fee per child is EUR 116.35.

According to Välimäki and Lindberg (2004), user fees cover 15.4% of gross childcare costs. A similar estimate is cited in OECD (2006b, p.321): "For parents, affordability is not an issue because of the very small parent contribution of about 15% of costs, the rest being subsidised by state and local authority taxes".

Extrapolating from this, gross childcare costs are calculated as EUR 755.52 per month per child. Net subsidies are equal to gross childcare costs minus family-specific day care fees. Annual subsidies per child are finally arrived at by multiplying monthly net subsidies by the number of months a child appears in the dataset to be in day care.

Note that the dataset used is the Income Distribution Survey 2001 of Statistics Finland, as updated to policy year 2003. Municipal day care fees are simulated in EUROMOD.

Assessing the effects of publicly-provided childcare in Finland: the methodology

1. Identify households with children aged 0-6. Select those attending municipal day care centres. Assign users the implicit gross subsidy of EUR 755.52 pm minus fees.
2. Calculate monthly childcare fees as a function of family size and family income in excess of the relevant threshold, as shown in Table A.4
3. Raise users' monetary incomes by the level of the implicit net subsidy. Recalculate inequality and poverty, allowing the poverty line to shift. Compare to baseline.

GERMANY

Coverage and institutional structure

Childcare services are provided either by local governments, at municipal council level, or by private, mostly confessional institutions; both are highly subsidised. Total expenditure on childcare subsidies in 2001 is estimated at EUR 10.4 billion (Statistisches Bundesamt 2001, cited in Wrohlich 2004), or 0.4% of GDP (OECD 2004). The availability of childcare places in subsidised facilities by age group and region is shown in Table A.5.

Table A.5

Availability of childcare	% of age group			
	Children aged 0-2		Children aged 3-6	
	East Germany	West Germany	East Germany	West Germany
Slots per 100 children	37	2.7	105.1	88.1
of which: full-time slots	96%	79%	98%	18%

Note: Statistisches Bundesamt (2004), cited in Wrohlich (2006).

Fees and subsidies

Fees and subsidies differ by federal state (Bundesland). Table A.6 below presents estimates of annual gross and net subsidies to *Kinderkrippen* and *Kindergarten* (catering for children aged 0-3 and 3-6 respectively) by the Federal State.

Estimates of the gross costs of providing childcare are found in Schilling (2006). Net costs are derived on the basis of information on full- or part-time use of childcare as found in the German Socio-Economic Panel (SOEP) 2002 dataset.

Gross costs for full-time care are adjusted as follows: for children attending *Kinderkrippen* or *Kindergarten* in the morning only or in the afternoon only, full-time amounts are divided by 2; in the case of children on part-time day care plus lunch an additional 5% is added (Schilling 2006). In order to arrive at net costs, parental fees are deducted from gross costs on the basis of information available in SOEP 2002.

Table A.6

Federal State (Bundesland)	Annual subsidies per child in centre-based childcare (EUR)	
	gross, full time	net, average
Berlin	6,200	4,719
Niedersachsen	6,100	2,511
Hamburg	6,100	4,964
Bremen	6,000	2,334
Nordrhein-Westfalen	5,500	2,290
Hessen	5,300	2,524
Schleswig-Holstein	5,000	1,556
Saarland	4,900	2,161
Rheinland-Pfalz	4,700	2,161
Sachsen-Anhalt	4,600	2,886
Baden-Württemberg	4,600	2,099
Bayern	4,500	1,840
Brandenburg	3,900	2,408
Thüringen	3,700	2,187
Sachsen	3,400	1,842
Mecklenburg-Vorpommern	2,900	1,315
total (all Germany)	5,000	2,289

Note: Frick et al. (2007), Schilling (2006). The last column shows annual costs per child aged 0-5, adjusted for time actually spent in childcare, after deduction of parental fees. All figures refer to the year 2002.

With respect to parental fees, childcare providers have a large degree of discretion within federal regulations stipulating that fees should be charged as a function of parental income

(Wrohlich 2004). Table A.7 shows the childcare fee structure applied in the federal state of Nordrhein-Westfalen in 2002.

Table A.7

Annual family income (EUR)	Monthly fees (EUR)	
	Kindergarten (age 3-6)	*Kinderkrippen* (age 0-3)
up to 12,271	0	0
12,272 – 24,542	26.08	68.00
24,543 – 36,813	44.48	141.12
36,814 – 49,084	73.11	208.61
49,085 – 61,355	115.04	276.61
61,356 or more	151.34	312.91

Note: Figures refer to the childcare fee structure in Nordrhein-Westfalen for the year 2002, cited in OECD (2004). Fees are paid for one child only, irrespective of the number of children per family in childcare. There is no difference in fees for full- or part-time care.

Assessing the effects of publicly-provided childcare in Germany: the methodology

1. Identify households with children aged 0-5. Select those attending subsidised day care centres, i.e. *Kindergarten* or *Kinderkrippen*. Assign users the implicit gross subsidy minus fees.
2. Calculate monthly childcare fees as a function of family income.
3. Raise users' monetary incomes by the level of the implicit net subsidy. Recalculate inequality and poverty, allowing the poverty line to shift. Compare to baseline.

GREECE

Coverage rates

Immervoll and Barber (2005, p. 13) report that 3% of children aged 0-2 in 2000 were in registered formal childcare in Greece. This is comparable to the findings of the 1999 Fertility and Family Survey, as analysed in Symeonidou et al. (2000), shown in Table A.8 below.

Table A.8

Form of childcare	% of age group	
	children aged 0-3	children aged 4-5
Formal	4.5	21.2
Subsidised	3.3	15.7
public kindergarten (free)	*0.8*	*8.8*
public kindergarten (fees)	*2.5*	*6.9*
Non-subsidised	1.2	5.5
private kindergarten	*1.2*	*5.5*
Informal	95.5	78.8
Paid	*7.6*	*2.5*
nanny	6.8	1.7
domestic worker	0.8	0.8
Unpaid	*87.9*	*76.3*
a parent	59.2	55.0
grandparents	26.7	18.8
sibling/other relative	1.6	1.7
other	0.4	0.8
Total	100.0	100.0

Note: Symeonidou et al. (2000). The Greek Fertility and Family Survey (FFS) was carried out in 1999 in the framework of the international FFS survey co-ordinated by the United Nations.

More recent estimates, using the EU-SILC database, imply a much higher rate of participation in formal childcare. The relevant figures are presented in Table A.9 below.

Although part of the difference may be accounted for simply by the fact that the EU-SILC was carried out 5 years later than the 1999 FFS, it should also be noted that formal childcare as defined in Table A.9 includes pre-school and professional child minders, as well as day care and other centre-based services.

Table A.9

Form of childcare	% of age group	
	children aged 0-2	children aged 3-5
Formal	9.1	43.8
Informal	35.8	13.4
Both	4.8	22.6
Total	49.7	79.8

Note: Ward (2006). The figures show the proportion of couple households with child(ren) in which the mother is aged 25-49 making use of childcare in the EU-SILC database for 2004.

In this study, the definition of formal registered childcare includes pre-school but excludes professional child minders. A more detailed analysis of childcare use by type of provider and age of child, drawing on the EU-SILC 2005 survey (data collected in April-May 2005), is presented in Table A.10 below.

Table A.10

Childcare provider	EU-SILC variable	% of children aged: 5	4	3	2	1	0	total
pre-school	RL010	73.5	48.9	21.8	8.3	0.0	0.0	29.4
after hours centre	RL030	0.1	0.6	0.0	0.0	0.0	0.0	0.1
day care centre	RL040	2.3	1.0	1.7	0.0	0.0	0.0	1.0
all formal registered		73.5	48.9	22.8	8.3	0.0	0.0	29.6
professional child minder	RL050	0.7	8.0	3.1	11.5	10.4	0.0	6.2
informal i.e. grandparents	RL060	34.0	39.2	49.0	49.7	46.4	21.8	42.2
Total		80.5	72.0	65.6	58.8	51.1	21.8	63.2

Note: Proportion of child(ren) aged 0-5 making use of childcare in the EU-SILC 2005 database. The total will be less than the sum of the parts when different types of childcare are combined.

Note that according to official sources, the overall pre-school participation rate in 2003 was estimated at 60% and 82%, at age 4 and 5 respectively.

A further analysis of childcare use by provider and number of hours a week attending childcare is presented in Table A.11 below.

Table A.11

Childcare provider	EU-SILC variable	% of children aged 0-5: 1-15 hours a week	16+ hours a week	total
pre-school	RL010	0.0	29.4	29.4
after hours centre	RL030	0.1	0.0	0.1
day care centre	RL040	1.0	0.0	1.0
all formal registered		0.2	29.4	29.6
professional child minder	RL050	1.3	4.9	6.2
informal i.e. grandparents	RL060	12.7	29.5	42.2
total		5.1	58.1	63.2

Note: Proportion of child(ren) aged 0-5 making use of childcare in the EU-SILC 2005 database. The total will be less than the sum of the parts when different types of childcare are combined.

Public/private mix

EU-SILC data do not distinguish between public and private providers. Nevertheless, drawing on the FFS study cited above, it can be assumed that private centres cater for roughly 25% of all children in childcare, drawn from all income groups except the poorest.

With respect to pre-school, official figures put the proportion of children attending private pre-school centres in 2003 at 3.5% of all children at pre-school.

In view of the predominance of pre-school compared to after hours and day care centres, the 75/25 split may understate the true extent of publicly-provided childcare in Greece.

Table A.12

Form of childcare	EUR per month		
	estimated gross	average fee	implicit subsidy
Public kindergarten			
fully subsidised	295	0	295
partly subsidised	295	81	213
Private kindergarten			
not subsidised	295	295	0
Informal paid			
nanny	500	500	0
domestic worker	300	300	0

Note: Matsaganis and Gavriliadi (2005). The survey was carried out by the Athens University of Economics and Business (AUEB) and covered 181 public and 15 private childcare centres in the Athens area, with a combined membership of about 10,984 and 750 children respectively. Symeonidou et al. (2000) had put the total number of children in public childcare centres in Greece at 110,300 and the total number of children in private ones at 39,000. This implies that the AUEB survey covered approximately 10% and 2% of registered children in public and private childcare centres respectively.

Fees and subsidies

According to Immervoll and Barber (2005, p. 54), average fees in public nurseries and day care centres were EUR 65 per month in 2001. This does not seem far out if compared to the findings of a survey carried out by Matsaganis and Gavriliadi (2005), which concluded that the average fee in public subsidised childcare, charged to approximately 46% of all children attending day care centres, was EUR 81 per month in 2005. The same survey found that the average fee in private childcare, charged to 26% of all children attending day care centres, in the same year was EUR 295 per month. By comparison, nannies charged about EUR 500 per month and domestic workers baby-sitting charged about EUR 300 per month. This is shown in detail in Table A.12 above.

Access conditions

As places in public childcare facilities are limited, priority is usually given to working mothers. Once accepted, fees may be waived for “needy” families. Sometimes, fees increase with income, up to a ceiling.

For illustration, Table A.13 below shows the fee schedule applied in the various municipal childcare centres run by the City of Athens (a major provider, catering for 5000 children in 2005).

Table A.13

Category	annual income (EUR)	monthly fee (EUR)
large families (3+ children) families with a disabled person single-parent families municipal employees	0 – 15,000	0
all other families	0 – 10,000	0
	10,000 – 12,000	45
	12,000 – 15,000	60
all families	15,000 – 18,000	70
	18,000 – 24,000	80
	24,000 – 30,000	100
	30,000 – 33,000	110
	33,000 – 36,000	120
	36,000 +	150

Note: Matsaganis and Gavriliadi (2005).

Assessing the effects of publicly-provided childcare in Greece: the methodology

1. Identify households with children aged 0-5. Select those using formal, centre-based childcare, i.e. EU-SILC variables RL010, RL030 and RL040. Rank them by non-equivalised household income.
2. Drawing from all income quintiles except the poorest, randomly select 25% of children. They are assumed to attend private day care centres, and therefore to receive no subsidy.
3. The remaining 75% of children are assumed to attend publicly-funded childcare. Of those, select the poorest one third, i.e. 25% of all children using formal, full-time childcare. Assign them the *full* subsidy of EUR 3,250 pa, assuming a 11-month year.
4. Select the next two-thirds, i.e. 50% of all children using formal, full-time childcare. Assign them the *partial* subsidy of EUR 2,350 pa, assuming a 11-month year.
5. Raise users' monetary incomes by the level of the implicit net subsidy. Recalculate inequality and poverty, allowing the poverty line to shift. Compare to baseline.

SWEDEN

Coverage rates

Immervoll and Barber (2005, p. 13) report that 65% of children aged 0-2 were in registered childcare in Sweden in 2000. Official figures put the proportion of children aged 1-5 attending pre-school and family day care centres at 75% and 7% respectively in 2003 (Swedish Institute 2004, p. 3). More specifically, coverage rates by age group are shown in Table A.14 below.

Table A.14

Age of child	Proportion of children in registered childcare (%)		
	pre-school	family day care	total
1	40	5	45
2	79	8	87
3	83	5	91
4	88	5	96
5	90	7	97
1-5	75	7	82

Note: Swedish Institute (2004).

The above is similar to estrimates drawn from the EU-SILC database for 2004, as shown in Table A.15 below. Comparable figures are reported in OECD (2006, p. 410). Note that almost all children under one year of age are looked after by a parent on parental leave at home (Immervoll and Barber 2005, p. 57).

Table A.15

Form of childcare	% of age group	
	children aged 0-2	children aged 3-5
formal	46.8	81.9
informal	0.9	0.2
both	1.0	2.0
total	48.8	84.1

Note: Ward (2006). The figures show the proportion of couple households with child(ren) in which the mother is aged 25-49 making use of childcare in the EU-SILC database for 2004.

A more detailed analysis of childcare use by type of provider and age of child, drawing on EU-SILC data from the 2005 survey, is presented in Table A.16 below.

Public/private mix

EU-SILC data do not distinguish between public and private providers. However, private provision is extremely rare (Swedish Institute 2004, Martin-Korpi 2005). Here it is assumed that all formal registered childcare is publicly provided.

Table A.16

Childcare provider	EU-SILC variable	% of children aged: 5	4	3	2	1	0	total
Pre-school	RL010	6.3	0.0	0.0	0.0	0.0	0.0	0.9
after hours centre	RL030	1.5	0.0	0.0	0.0	0.0	0.0	0.2
Day care centre	RL040	89.0	86.2	76.9	78.8	34.3	32.1	67.0
all formal registered		92.4	86.2	76.9	78.8	34.3	32.1	67.5
professional child minder	RL050	10.8	2.7	1.4	1.4	1.5	3.3	3.2
informal i.e. grandparents	RL060	4.1	2.7	1.4	1.9	2.8	3.3	2.6
Total		93.2	86.2	76.9	79.3	35.6	32.1	68.0

Note: Proportion of child(ren) aged 0-5 making use of childcare in the EU-SILC database. The total will be less than the sum of the parts when different types of childcare are combined.

Fees and subsidies

As reported in Immervoll and Barber (2005, p. 57), maximum fees in public nurseries and day care centres were SEK 1,140 per month in 2001. That amount was raised to SEK 1,260 per month following the 2002 reform which introduced a maximum fee both in relation to household income and in absolute terms, according to the number of children in registered day care (Swedish Institute 2004, p. 4). Under the 2002 reform, actual fees are related to income as shown in Table A.17 below.

Table A.17

Children aged 0-5	Childcare monthly fees: as % of family income	max (SEK)	max (EUR)
1st child	3	1,260	139
2nd child	2	840	92
3rd child	1	420	46
4th child	0	0	0

Note: Swedish Institute (2004, p. 4), Martin-Korpi (2005).

Fees are waived for low-income families and social assistance recipients. Moreover, under a scheme known as universal pre-school, a daily 3-hour session is provided free of charge to all children 4-6.

Average childcare costs net of fees are estimated at approximately EUR 930 per month or EUR 10,250 a year (OECD 2006, p. 107). Similar figures are reported in Martin-Korpi (2005). Fees are thought to cover about 9% of gross costs in 2004 (OECD 2006, p. 408), compared to 11% in 2002 and 18% in 2001. On the basis of that, gross costs can be estimated at approximately EUR 1,020 per month or EUR 11,250 a year in 2004, assuming a 11-month year.

Access conditions

As explained in Immervoll and Barber (2005, p. 57), priority is given to working mothers, to those in full-time education, to those on maternity leave, and to those on unemployment benefit or on social assistance.

Assessing the effects of publicly-provided childcare in Sweden: our methodology

1. Identify households with children aged 0-5. Select those using formal, centre-based childcare. Rank them by non-equivalised household income.
2. Assuming annual gross childcare costs of EUR 11,250 per child and a 11-month year, assign users the implicit net subsidy of EUR 1,020 per month minus fees.
3. Calculate monthly childcare fees as a function of family income and of the number of children aged 1-5 in the family, subject to the relevant ceiling.
4. Raise users' monetary incomes by the level of the implicit net subsidy. Recalculate inequality and poverty, allowing the poverty line to shift. Compare to baseline.

CHAPTER 10 — RECENT POLICY DEVELOPMENTS AFFECTING INCOME DISTRIBUTION

INTRODUCTION

Achieving a high level of social protection is a distinctive feature of the European social model, while common objectives are set for social inclusion as part of the open process of coordination. However, responsibility for tax-benefit policy lies firmly with Member States. As a result of that, the measures taken in respect of social benefits and taxation to achieve particular goals, and the priority attached to different objectives, vary significantly across countries. The variation reflects differences in the scale and nature of social problems, but also differences in the underlying political and economic circumstances, in the design and nature of the tax and benefit system and in social attitudes towards income redistribution and poverty relief.

In light of the above, it is difficult to detect common trends in the policy changes affecting income distribution and, in particular, the relative position of those on low incomes across the 27 European Union Member States and the two candidate countries in recent years. This is evident from the review of policy developments in the last couple of years, as presented below, which relies on information provided by a network of country experts on the main changes in taxes, social benefits and other relevant aspects of policy as well as on their assessment of the effects of these on the relative position of different income groups. The purpose of the review that follows was not only to examine the policy efforts being made by governments across Europe to tackle the problems identified in this report, but also to assess how far the picture presented in earlier chapters, which in most cases is based on the latest available (which is to say, not fully up-to-date) statistical information, is likely to have changed in the intervening period.

The measures described here mainly involve changes to social benefits, income tax and social contributions, though they may also include changes in minimum wages and social services. A widespread tendency has been to seek to increase incentives to work and to restrain public expenditure, while at the same time trying to avoid exposing those on very low incomes to reduced income support (e.g. with respect to pensioners). Income tax rates have been cut and/or tax allowances increased in many countries, along with attempts to simplify the tax system. Although this may increase low incomes, those on high incomes usually tend to benefit more. Moreover, positive effects at the bottom end of the scale are often tempered by the fact that many of those concerned pay no tax and therefore gain no benefit. A shift towards

refundable tax credits would remedy this, but such a shift has been so far observed only in a handful of countries.

The main policy changes in 2006-07 by country are outlined below. We start with the EU-27 countries, then follow with the candidate countries (Croatia and Turkey). Tables in the annex to the chapter summarise the effect of the changes on the bottom 20% and top 20% of income earners.

THE EU-27 COUNTRIES

In **Belgium** the minimum income guarantee for the elderly GRAPA (*Garantie de revenu aux personnes âgées*) was again increased by EUR 90 per month for single persons in 2007, bringing the guaranteed minimum income to EUR 795 per month, while the corresponding increase for those cohabiting was EUR 60 to EUR 530 per month. Moreover, the government announced that future increases will take account of changes in average incomes, not just prices. About 70,000 individuals were expected to benefit, over 70% of which are women. In contrast, benefit rates under the guaranteed minimum income scheme for working age recipients (*Revenu d'Intégration Sociale*) were increased in April 2007 by a mere 2% (to EUR 438.25 a month for those cohabiting, EUR 657.37 for those living alone, and EUR 876.50 for single parents). This affects over 270,000 people.

Pension base amounts were also increased by 2%, except for minimum pensions which were raised by EUR 70 (EUR 35) a month, for recipients with a contributions record of 20+ (10-19) years. A further increase of EUR 90 (EUR 40) a month is due in 2008. About one million minimum pension recipients are expected to benefit.

In August 2007, child benefits were supplemented by a lump sum for back-to-school costs (*Allocation de rentrée scolaire*). The allowance, paid once per year on top of the standard child benefit, is not dependent on the income or employment status of parents and varies by age: families receive EUR 51 per child at primary school (aged 6-12), and EUR 71 per child at secondary school (aged 12-18). In 2008 no such allowance will be paid for primary school children, though it will still be paid for children at secondary school.

A new housing benefit will be introduced by the regional government in Brussels in 2008. The benefit, set at EUR 170 per month, is targeted to social aid recipients (3.2% of the local population), and will initially be restricted to those in social housing.

With respect to social health insurance benefits, higher reimbursement rates now apply to all households with an annual taxable income below EUR 13,313 plus EUR 2,465 per dependant.

In April 2007, the social contributions rebate for low earners (*Bonus à l'emploi/Werkbonus*) was

increased to a maximum of EUR 154 or EUR 143 per month for blue- and white-collar workers respectively on the minimum wage. The level of the rebate is then gradually reduced up to a gross earnings threshold of EUR 2,076 a month. A similar scheme has now been introduced for public sector employees.

Finally, a new subsidy to employer social contributions has been introduced to promote the employability of older workers. To employers of workers earning less than EUR 3,000 a month the subsidy is worth EUR 200 a year at age 50 and increases linearly with age to reach EUR 3,200 a year for workers aged 65. Employers of higher-paid workers aged 57 or above are eligible for a subsidy of EUR 1,200 a year.

On the whole, the policy changes described above are expected to have a small positive effect on the incomes of the poorest one-fifth of the Belgian population.

In **Bulgaria** as of January 2007 employer-provided benefits in cash or in kind for food, clothing etc. of up to EUR 100 per person have been made deductible from corporate taxation.

With respect to benefits, the pension indexation formula has been changed since January 2007 and supplementary indexation was provided in July 2007. The cumulative increase of the average pension is 21%, or 3 times the projected rate of inflation. As a proportion of the average wage, the average pension rose from 42% to 46%.

Moreover, since 1 January 2007 the duration of maternity leave on 90% of previous earnings increased from 135 to 315 days. While obviously important for working women in the formal economy, most poor mothers are unable to take advantage of improved rules concerning materity leave as they are out of work or in the informal economy.

Furthermore, in November 2006 the income threshold for targeted social assistance was increased by 9%. The corresponding increase in the amount of heating benefits slightly exceeds the average price index for electricity, gas and coal.

Finally, public sector wages were raised in July 2007 by 10%, compared to an expected inflation of 7%, while as of 1 January 2007 the statutory minimum wage was increased by 12.5% from EUR 80 to EUR 90.

In the **Czech Republic** parental allowance, paid to families with a child under the age of 4, was more than doubled by over 100% from CzK 3,696 (EUR 142) to CzK 7,582 (EUR 291). Most other benefits were adjusted in line with inflation.

Furthermore, the Social Services Act 110/2006 modified the rules concerning the calculation of living and subsistence minimum (*Zákon o životním a existenčním minimu*). As of 1 January 2007 the Act introduced a guaranteed ('living') minimum income, set at CzK 2,020 or EUR 78 per person per month, and a higher ('subsistence') level which varies according to the number

and age of household members. For example, the statutory subsistence level for a couple with two children (aged 5 and 11) is CzK 9,040 or EUR 347 per month. Actual social assistance benefits can be anything between the living minimum and the subsistence level (minus own incomes), depending on whether recipients actively look for work, rely on their own savings or property etc. Compared to former rules, the new ones are more stringent. Housing costs are dealt with separately at regional level.

Finally, the statutory minimum wage, having been raised twice in 2006 by a total of 10.7% in nominal terms, was increased again in 2007 but only slightly (from CzK 7,955 or EUR 305 to CzK 8,000 or EUR 307). The minimum wage amounted to an estimated 40% of the average wage in 2006.

In **Denmark,** income distribution remained broadly unchanged. As regards income tax, a change aimed at increasing incentives to work is due to take effect on 1 January 2008. The tax credit on earned (as opposed to transfer) income will be raised from 2.5% to 4.25% up to a ceiling of DKK 13,100 (EUR 1,756). Furthermore, marginal tax rates will be reduced by 5.5 percentage points for approximately 575,000 middle-income tax payers.

As regards social benefits, the supplement to the state old age pension (paid to 225,000 pensioners with no or little other income) was raised in 2007 by up to DKK 1,300 (EUR 174) a year. The average increase was DKK 1,020 (EUR 137) a year. Low-income pensioners eligible for the base amount and the full supplement will now receive a total state old age pension of approximately DKK 100,000 (EUR 13,400) a year. Moreover, the pension supplement will be disregarded in the calculation of housing assistance to old age pensioners. As a result of that, approximately 135,000 pensioners will see their housing assistance increase by about DKK 740 (EUR 100) a year.

Finally, the childcare subsidy scheme was further expanded. In 2006, maximum parental fees for children up to the age of three were reduced from 33% to 25% of costs. In 2007 the reduction was extended to children from the age of three to school age. It should be noted that parents at the bottom end of the income scale are eligible for free or heavily subsidised childcare and are therefore not affected by the change.

In **Germany**, while previous income tax reforms had gradually decreased the top marginal rate from 51% in 2000 to 42% in 2005, an additional top rate of 45% on incomes above EUR 250,000 for single people (EUR 500,000 for couples) was introduced in 2007. Moreover, a childcare tax allowance and a domestic services tax credit were also introduced. By contrast, the tax base has been broadened since 2006 by abolishing the home-owner cash grant and some other tax relief (e.g. for commuting costs). On the other hand, in 2007 the standard rate of VAT went up from 16% to 19%, while social contributions for unemployment insurance are now levied at 4.2%

of earnings (down from 6.5%).

In terms of social benefits, the parental leave system was reformed in 2007 along the lines of Scandinavian schemes. The core piece of the reform is the replacement of the existing means-tested parental leave benefit by an earnings-related benefit for a period of one year (at 67% of earnings up to EUR 1,800 per month and at 100% for low-income earners).

Furthermore, social health insurance was also reformed in 2007. The new system requires everyone in Germany to have health insurance by 2009, when a state-run central fund will pool social contributions and distribute risk-adjusted funds to insurers (at present, those earning over EUR 3,940 a month can opt out). Participants will be allowed to choose between a large number of tariffs, and to switch between the public and private systems upon reaching old age. Private insurance companies will be required to set a basic fee for potential new clients, based on the benefits provided under the public system. Children's health insurance costs will be partly funded out of general taxation.

An important feature of the labour market reforms (Hartz IV), implemented since 2005, is the replacement of earnings-related unemployment benefit (at 50% of previous earnings) by means-tested income support (*Arbeitslosengeld II*), payable at a lower rate irrespective of former earnings. Finally, minor changes to the new unemployment benefit relative to Harz IV, affecting the means test and job availability requirements, were also implemented in 2006.

In **Estonia** tax-benefit policies operated against a background of rapid growth (11.2% in 2006) and rising employment rates (67.7% in the 15-64 age group). In this context, the standard income tax rate in 2007 was further reduced to 22%. Moreover, a supplementary non-taxable allowance currently available to families with two or more children under the age of 17 years (at EEK 24,000 or EUR 1,535 a year per child) will as of 1 January 2008 also be available to families with one child.

There was no change to social contributions, except for the increase to the minimum tax base from EEK 700 (EUR 45) monthly (frozen at this level since 1999) to EEK 1,400 (EUR 90) in 2006 and to a further EEK 2,000 (EUR 128) in 2007. This will have a small impact on future pensions of those whose social contributions are paid by the State (e.g. for periods of maternity leave).

With respect to social benefits, the minimum guaranteed income level, used to calculate entitlement to means-tested subsistence, was increased in 2007 by 20% from EEK 750 (EUR 48) to EEK 900 (EUR 58).

As regards family benefits, the monthly child benefit rate for the first and second child remained unchanged at EEK 300 (EUR 19), while the rate of benefit for the third and each additional child was increased on 1 July 2007 to EEK 900 (EUR 58), up from EEK 400 (EUR 26) for the third child and EEK 450 (EUR 29) for the fourth and each further child. On the other

hand, child benefits are now fully taken into account when determining eligibility for social assistance.

In January 2008, the duration of parental benefit will be extended to 18 months, up from 11 months prior to December 2006. The parental benefit is paid at 100% of former earnings, subject to a lower threshold, at the minimum wage, and to an upper threshold, at three times the average wage. Parents with zero earnings over the previous year can still claim parental benefit at a fixed rate, roughly equal to the minimum wage in the preceding 12 months.

As regards support for the unemployed, a minimum rate of unemployment insurance benefit was introduced, stipulating that the daily rate cannot be less than the daily rate of unemployment assistance. The latter, payable on a means-tested basis to those no longer eligible for unemployment insurance, unchanged at its 1999 level of EEK 400 (EUR 26), was finally increased considerably to EEK 1,000 per month (EUR 64).

As regards pensions, the government has continued a policy of *ad hoc* increases on top of regular indexation. In April 2007, there was an increase of 12.2% as part of indexation. In July 2007, the minimum pension was increased by 10.5%, while the flat rate base amount was increased by 22.3% in order to improve the position of those in retirement with shorter contribution records and/or lower earnings.

Finally, in 2007 the minimum wage was raised by 20% to EEK 3,600 (EUR 230), up from EEK 3,000 (EUR 192) in 2006. In spite of this, the ratio of minimum to average wage has remained relatively stable over recent years at around 33% because of rising earnings overall.

In **Ireland,** the state pension rose faster than earnings: the contributory rate was raised by 8.3% to EUR 209.30 per week, while the non-contributory rate increased by 9.9% to EUR 200 per week, compared to 5.5% predicted wage growth. Other benefit increases also exceeded wage inflation. Disability benefit, lone parent allowance and unemployment payment rates rose to EUR 185.80 per week. Child benefit rates rose by EUR 10 to EUR 160 (for first and second child) and EUR 195 (for third and subsequent children) per month respectively. Similarly, deserted wife payments and disablement benefit increases were also above wage growth. In addition, family income supplement increased by an average of 12.1% in nominal terms, depending on the number of children in the household.

In terms of income tax, the top rate was cut from 42% to 41% in the 2007 budget. This resulted in a gain in income for the top quintile. Tax bands also increased, except for the 'married couple, one earner' band, falling slightly below wage growth indexation.

Finally, the national minimum wage had been set at EUR 7.65 in May 2005 and not updated since then. During 2007 the minimum wage was increased to EUR 8.30 in January, and to EUR 8.65 from July 2007 – representing a significant increase for low earners.

In distributional terms, households in the bottom two deciles are estimated to have gained about 4% in income from the budgetary policy changes. Gains decline with income so that the top quintile gained about 1.1%.

In ***Greece***, a bill to create a National Social Cohesion Fund was put to parliament in December 2007. The Fund, endowed with EUR 500 million in 2008, gradually to reach EUR 2 billion in 2010, will provide targeted assistance to households with income below 60% of median equivalised income. The first actions to be financed in 2008 involve emergency payments to areas affected by the fires of summer 2007, as well as the extension of "multi-children families" to families with three children.

In terms of other benefits, the income-tested supplement to low pensions (*EKAΣ*), the non-contributory basic farmer pension and social pensions were all raised by 22% in nominal terms, while social insurance pensions increased in line with public sector earnings (4%). The introduction of a means-tested national pension in 2008 was also announced.

Moreover, the contributory unemployment benefit, having been left unchanged since 2004, was raised (to EUR 367.50 monthly in 2007 and to EUR 404 monthly in 2008), while its link with the minimum wage was also restored (50% in 2007 and 55% in 2008).

Finally, as regards income tax, the second highest marginal rate (for annual incomes in the EUR 30,000 to EUR 75,000 bracket) was cut from 39% to 37% in 2007 and further to 35% in 2008. Similarly, the third highest marginal rate (for annual incomes in the EUR 13,000 to EUR 30,000 bracket) was cut from 29% to 27% in 2007 and further to 25% in 2008. There was no change to the top rate of 40% (for annual incomes above EUR 75,000), nor to the base rate of 15% (for annual incomes between EUR 10,500 and EUR 13,000), while incomes below EUR 10,500 (EUR 12,000 for employees and pensioners) remain tax-free.

In **Spain**, income tax was reformed in 2007. Tax allowances were replaced by a zero-rate bracket, conditional on individual or family circumstances. The relevant amount was increased by 48% per individual and by between 29% and 79% per dependent child. In addition, all sources of investment income became taxed separately at a single tax rate. Moreover, the number of brackets in the tax schedule was reduced from 5 to 4 and the maximum tax rate from 45% to 43%.

While benefit rates are supposedly price-indexed, there is in fact considerable variation. In 2007, with a forecast inflation rate of 2.2%, contributory pensions were increased by 2.0%, minimum contributory pensions by 6.5%, non-contributory pensions by 3% and unemployment assistance by 4.2%, while child benefit was left unchanged for the 7th year running.

Finally, the minimum wage was raised by 5.5% to EUR 570.60 per month or EUR 7,988 per (14 month) year.

In **France**, the refundable tax credit *Prime Pour l'Emploi* was increased substantially, with the maximum amount reaching EUR 940 per month in 2007 compared to EUR 714 in 2006. Nine million taxpayers are expected to benefit. As regards income tax, the lowest and highest marginal rates were reduced to 5.5% and 40% respectively in 2007, down from 6.8% and 48% in 2006 (they stood at 10.5% and 54% respectively in 2000). The effect of the tax rate cuts, combined with the reduction in tax brackets from six to four and the introduction of a total tax cap at 60% of income, has been unambiguously regressive.

Furthermore, a tax reform package was introduced after Sarkozy was elected President in May 2007, under which: (i) overtime work will be tax – and social contribution – free for both employees and employers; (ii) inheritance taxes are substantially reduced; (ii) tax credits worth up to 20% of interest repayments will be available for five years from taking out a mortgage; (iv) wealth tax can be offset by investing in SMEs; (v) 30% of the value of a primary residence will be exempt from wealth tax, up from 20%; (vi) the total tax cap was lowered from 60% to 50%. Most of the above changes were already effective in 2007.

With respect to social benefits, since October 2006, those coming off welfare assistance to start work are eligible for a EUR 1,000 lump-sum back-to-work bonus. Moreover, a scheme known as active solidarity income (*revenu de solidarité active*) with 90,000 recipients has been introduced on an experimental basis to allow minimum income (*revenu minimum d'intégration*) recipients taking up a job to combine social assistance and earnings from work for up to three years. The new scheme is set to go national at the end of 2008.

The combined effect of the above changes seems to be to worsen the relative position of those at the bottom of the income distribution.

In **Italy**, the most relevant changes to the tax-benefit system introduced by the Budget for 2007 concerned the definition of taxable income and the tax base, the introduction of a system of tax credits replacing the previous tax allowances, and the design of family allowances (*assegni famigliari*). The overall impact of changes is estimated to be modest. As a result of the new family allowances, households with children in the bottom half of the distribution gain 0.5% to 1% of income, with gains declining constantly as income rises. As a result of the new structure of income tax, gains increase linearly up to a maximum of 1.3% for the 4th decile, diminishing as income rises and disappearing entirely from the 8th decile up. On the whole, gains are estimated to be greatest for middle-income groups.

On the other hand, the 2007 Budget introduced higher social contribution rates in 2007-08, up from an average of 17.5% to around 19.5% of earnings for the self-employed, from 18.2% to 23.5% for atypical workers and from 8.9% to 9.2% of gross wages for employees.

Furthermore, from October 2007 pensions below EUR 8,500 a year at age 64 will be eligible for top-up benefits of between EUR 262 and EUR 392 a year, depending on contribution records and employment status.

Finally, the temporary increase of unemployment benefit duration and rates for selected groups has been suspended. From 2008 the rate of benefit will be back to 40% of previous earnings and the maximum duration of benefit back to six months.

In **Cyprus**, the supplement to low pensions was increased in inverse proportion to the original pension. Specifically, pensions below CY£200 (EUR 342) a month were raised by an average of 13.4%, while higher pensions were increased by 11.4% (if in the range of CY£200 to CY£250, i.e. EUR 342 to EUR 427 a month), or by 5.1% (if in the range of CY£250 to CY£310, i.e. EUR 427 to EUR 530 a month). About 50% of all pensioners were expected to benefit. Note that the risk of poverty among the elderly in Cyprus is the highest in the EU.

Benefits to public assistance recipients aged 65 and living alone, to those with disabilities, to low-income lone parents, and to large families and others were also increased.

As regards to tax changes, the personal income allowance was raised from CY£10,000 (EUR 17,086) per year in 2006, to CY£10,750 (EUR 18,367) in 2007 and to CY£11,350 (EUR 19,393) in 2008. Moreover, the rate of VAT on a large number of goods and services was cut from 15% to 5%.

Overall, while changes in social benefits were strongly progressive, tax changes favoured higher income groups rather than the lower income ones. The net effect was expected to be a reduction in the risk of poverty by 1.4 percentage points and an equivalent decline in the degree of income inequality. In cash terms, gains in disposable income were almost the same across the income distribution.

In **Latvia** the flat-rate income tax remained at 25%, though tax allowances were increased. The personal allowance was raised from LVL 384 (EUR 550) in 2006 to LVL 600 (EUR 860) in 2007 and will rise further to LVL 960 (EUR 1,376) in 2008. Similarly, the allowance for dependents rose from LVL 264 (EUR 378) in 2006 to LVL 420 (EUR 602) in 2007 and will increase further to LVL 672 (EUR 963) in 2008. In addition, while social security contributions were unaltered, the upper earnings ceiling was raised from LVL 20,700 (EUR 29,673) in 2006 to LVL 23,800 (EUR 34,117) in 2007.

As regards social benefits, child benefit rates were raised in 2007 from LVL 6 (EUR 8.60) to LVL 8 (EUR 11.50) per month for the first child, having remained constant in nominal terms since 2003. Also, the monthly level of guaranteed minimum income increased from LVL 24 (EUR 34.40) in 2006 to LVL 27 (EUR 38.70) in 2007. Furthermore, from January 2007 pensions will be uprated annually, depending on contribution records and employment status.

Finally, the minimum wage was raised from LVL 90 (EUR 129) in 2006 to LVL 120 (EUR 172) in 2007, and will be LVL 160 (EUR 229) in 2008. The government has declared that its aim is to increase it to 50% of the average wage by 2010.

In **Lithuania**, the flat-rate income tax is set to be reduced to 24% in January 2008, down from 27% (33% prior to July 2006). With respect to social benefits, contributory pensions and maternity leave allowances were raised in July 2006 and again in February 2007. In particular, maternity allowance was increased from 70% of previous earnings to 85%, and then to 100% for the first 6 months. A paternity allowance at 100% of previous earnings for 1 month was also introduced, limited to married fathers living in the family home. Moreover, the maximum age at which child benefit is paid was extended from 7 to 9 years in September 2006, and again from 9 to 12 years in September 2007 (it was 3 years in 2004). In addition, the income threshold for social assistance was raised from LTL 155 (EUR 45) in 2006 to LTL 205 (EUR 59) in 2007. Finally, the minimum wage was increased significantly from LTL 550 (EUR 159) in 2006 to LTL 700 (EUR 203) in 2007. Set against a rapid growth in average earnings, the effect of the above measures in reducing income inequality was relatively limited.

In **Luxembourg**, a key policy change was the increase of social contributions for long-term care insurance to 1.4% in 2007 (up from 1.0%). Other changes included the increase of social assistance and minimum wage rates by 1.9% (in line with wage growth between 2003 and 2005). However, pensions were raised by only 1% (the remaining 0.9% will be paid in January 2008), while the indexation of family allowances was abolished. In addition, tax allowances, tax rates and tax bands were not uprated in line with inflation. Nevertheless, the combined effect of the above on the distribution of incomes is expected to be minimal.

In **Hungary**, tax-benefit policy operates in the context of a stabilisation package, introduced after the 2006 election, aimed at reducing the budget deficit from 9.2% of GDP in 2006 to 6.2% in 2007, and further still in subsequent years. To this end, the base rate of VAT was raised from 15% to 20%, the top income tax rate from 36% to 40% and social health insurance contributions from 6% to 7%.

As regards social benefits, survivor pensions were raised by 10% in 2006 and by another 6% in 2007 (compared to an inflation rate of about 7%). Social assistance, supplementing the incomes of households with income below 90% of the minimum old-age pension, was limited to the level of the net minimum wage from 1 January 2007 (i.e. the amount of benefit cannot exceed the amount of net earnings if working at the minimum wage). As a result, large families could expereince a cut in benefit.

Moreover, from January 2007, new system of income-tested subsidies targeted, at specific groups of consumers, have replaced the previous system of across-the-board subsidised prices

for domestic heating. Around 2 million households are entitled to some subsidy depending on their income. Of these, about 900 thousand now pay as much as, or less than, they paid previously. However, the price increase for the 1 million better-off households not entitled to any subsidy is estimated to be in the region of 40% to 65% compared to the previous system.

Finally, user fees are now charged for access to health care and higher education. From February 2007, visits to general practitioners and specialists cost patients HUF 300 (EUR 1.20), though no fee is charged after the first 20 visits. A similar scheme was introduced for hospital treatment. In addition, from September 2007, higher education institutions can charge students tuition fees. This was not accompanied by new grants for less well-off students or other compensatory measures.

In **Malta**, the most significant development is the pension reform which came into force in January 2007. The reform could improve the relative position of the elderly on low incomes, especially those with disabilities and those with a long record of unpaid work. Social contribution credits of two years per child (4 years in the case of disability) were also introduced.

As regards benefits, the government has proposed to increase the child allowance granted to the second and subsequent child under the age of 16 from Lm52 (EUR 121) to Lm107 (EUR 249) a year per child (the allowance is not taxable).Moreover, as from January 2008, paid maternity leave will increase to 14 weeks.

As regards social contributions, part-time employees used to pay at least Lm5.79 (EUR 13.50) per week, equivalent to 10% of the national minimum wage. As of 1 January 2007, social contributions by part-time workers are payable at 10% of their earnings. Entitlement to contributory benefits is on a *pro rata* basis. The rate of employer contributions is still to be established.

As regards income tax, changes in tax bands and tax rates imply gains of Lm30 (EUR 70) for those earning less than Lm6,000 (EUR 14,000) a year, compared to gains of over Lm243 (EUR 565) for those earning in excess of Lm10,000 (EUR 23,300) a year. In addition, parents of the 8,000 children in private schools will benefit from tax relief at Lm400 (EUR 932) for each child in primary school, and Lm600 (EUR 1,398) for each child in secondary school, while users of licenced childcare facilities will be entitled to tax relief of up to Lm400 (EUR 932). Finally, a mortgage interest rate subsidy of up to 1% when the base rate is higher than 3.75% has been introduced for first homes worth up to Lm50,000 (EUR 116,470) for a period of 10 years.

In the **Netherlands**, the general election of 2007 and the formation of a new government meant little change in policy, although key decisions are expected to be taken in 2008. With few exceptions (discussed below), changes to tax-benefit policies were mostly aimed at maintaining

real incomes, i.e. to compensate for loss of purchasing power due to inflation and changes in indirect taxation. According to official estimates, disposable income rose by 0.75% to 1.25%, with higher increases for higher incomes.

A major exception is the implementation of the Social Support Act since January 2007. The Act brings social care services under one system, largely market-driven in terms of service delivery and managed by local authorities. Although it is too early for a full evaluation, it appears that better opportunities for developing tailor-made approaches are balanced by higher user charges and concerns about quality of home care.

On the other hand, stricter rules for minimum income support have led to benefit cuts affecting about 1% of all minimum income claimants. Recent claimants are 4 times more likely to have their benefit cut because of non-compliance with the new job search and job acceptance requirements than those on benefit for 5 years or more.

Finally, the new government has discussed with social partners and other stakeholders the action programme "Everybody participates" (*Iedereen doet mee*) aimed at increasing labour market participation to 80% by 2016; to bring 200,000 inactive people into work; and to increase the number of volunteers and informal carers substantially. The relevant policy measures are certain to affect (both positively and negatively) the incomes of the lowest income groups in the Netherlands in the near future.

In **Austria**, the tax reform initiated in 2004 was expected to make the Austrian tax system more progressive. However, the initial gains across the income distribution have now been almost fully offset by fiscal drag in subsequent years (with the possible exception of those earning less than EUR 15,770 a year who no longer pay income tax). Otherwise, little has changed with respect to taxation, except for the increase in the refundable tax credit for commuters from EUR 110 to EUR 200 per year as of 1 January 2008.

With respect to social contributions, in 2006 the upper threshold was increased by 3.3% to EUR 3,750 per month or EUR 52,500 per year. Moreover, social contribution rates for pensions were gradually raised from 15% in 2005 to 15.5% in 2007 for the self-employed, and from 14.5% in 2005 to 15% in 2007 for farmers.

In terms of social benefits, pensions were revalued by roughly the rate of inflation in the previous year, while lower income pensioners benefited from larger increases to the minimum pension top-up in 2006 and 2007. Social assistance recipients in Vienna aged over 60 (women) or 65 (men) also benefited since rates of income support in the city are tied to the minimum pension top-up.

New legislation provides for above-inflation increases in family benefits. As of January 2008, large families will receive an extra EUR 50 a month for the third and each further child in family

allowances (approximately 170,000 children will be affected). At the same time, the taxable family income threshold for eligibility to an additional payment (*Mehrkindzuschlag*) will increase from EUR 46,080 to EUR 55,000 per year (22,000 children affected).

Moreover, as of January 2008, parental benefit (*Kinderbetreuungsgeld*) recipients will be able to choose among three different 'regimes' (i.e. combinations of benefit level and duration): EUR 800 per month for 15+3 months (for the primary and secondary carer respectively), or EUR 624 per month for 20+4 months, or EUR 436 per month for 30+6 months as at present. The personal income threshold for eligibility to parental benefit will also be raised from EUR 14,600 to EUR 16,200 a year.

As regards social services, a care allowance for those in need of around-the-clock assistance was introduced on 1 July 2007. The allowance is worth up to EUR 800 per month and is available to everyone falling into this category except those earning over EUR 2,500 a month (net of tax and before benefits).

In addition, following the recent agreement between the social partners on working-time flexibility, overtime pay at 125% of hourly wages will be extended to around 720,000 part-time employees as of January 2008. On the other hand, the normal working time of full-time workers will be able to be extended to 10 hours a day if both employers and employees agree.

The combined effect of the above changes could be a small improvement of the relative position of those at the bottom of the income distribution.

In **Poland**, social contributions for disability insurance were reduced by 3 percentage points (employee contribution rate) in July 2007, followed by a further reduction of 4 percentage points (evenly split between employees and employers) to come into force in 2008. As a result, the overall rate of disability insurance contribution was cut from 13% to 6% of gross earnings. As regards income tax, tax bands (left unchanged since 2004 causing fiscal drag) where uprated in 2007. A significant increase in child tax credit is foreseen for 2008. The credit is non-refundable, meaning that low-income families and sections of the population with generous tax concessions (such as farmers) do not benefit.

As of 2008, annual indexation of pensions (inflation plus 20% of real wage growth) will be restored. Until now indexation of social benefits has been erratic (every second year, provided that cumulative inflation exceeded 5%). Changes in other social benefits were very small.

The minimum wage was raised by 4% in 2007 and is set to increase by over 20% in 2008. This is in line with a policy, adopted in 2005, of introducing automatic adjustments when the minimum wage falls below 50% of the average wage.

Labour shortages, caused by outward migration and the retirement of the "baby boom" generation, are resulting in relatively high real wage growth, including in the public sector. For example, many months of protests on the part of health employees, widely considered to be underpaid, culminated in an improved wage settlement in October 2007.

In **Portugal**, the most significant policy development was the tripartite agreement on social security reform, signed in October 2006. The main points were the introduction of a 'sustainability factor', adjusting pension rules in the light of changes in life expectancy, and the faster transition to the new pension benefit formula, which takes into account the entire contribution record and increases benefits for low earners.

CSI, the means-tested supplement to pensions aimed at providing a basic safety net for the elderly and introduced for those aged 80 or older in 2006, was extended in 2007 to those aged 70 to 79. The annual income threshold is set at EUR 4,339 for those living alone and at EUR 7,593 for couples. In 2008, the scheme will be extended to those aged 65 to 69.

In addition, income-tested family benefits were raised in real terms, a new pre-natal benefit payable after the 13th week of pregnancy was also introduced, while the RSI, the "social integration" minimum guaranteed income, was increased by 3.1% in 2007.

Finally, the minimum wage in 2007 was fixed at EUR 403 per month and the government and social partners agreed it should gradually rise relative to average earnings, reaching EUR 500 by 2011.

In **Romania**, the new law on guaranteed minimum income introduced in 2006, allows for a reduction in benefit in the event of informal income from occasional seasonal work (i.e. the amount concerned being added to household income). The change will both restrict eligibility to social assistance and reduce the income of guaranteed minimum income recipients.

In January 2007, a universal lump-sum birth grant was introduced. At the same time, the universal child benefit was differentiated by age, and was raised substantially for children under 2 (3 if disabled or chronically ill). As a result, the young child rate is almost 9 times higher than the equivalent rate for older children. The change will provide assistance to non-working mothers unable to take advantage of contributory maternity and parental leave benefits.

A flat-rate marriage allowance at approximately EUR 200 has been introduced, which is expected to be taken up by couples who are cohabiting and on low income – Roma couples in particular – in order to have identity documents issued. Beyond the immediate advantage of receiving the allowance itself, official ID may make it easier for such couples to claim social benefits in the future.

In addition, , the value of pensions has been increased from the equivalent of 33% of average earnings in 2006 to 35.7% in 2007. In 2007, pensions were 74% higher in real terms than in 1990 and 9% higher than in 2005.

Moreover, in August 2007, the minimum qualifying period for access to social health insurance benefits was reduced from 5 years to 6 months for new entrants to the labour market.

In **Slovenia**, the government seems to have abandoned its earlier plan to introduce a flat-rate tax. Instead, piecemeal changes to income tax were introduced in November 2006. The number of tax brackets was reduced from 6 to 3, while the top marginal rate of tax was cut from 50% to 41%. The personal allowance was raised, but many types of tax deductions were eliminated, except for voluntary pension contributions to the second pillar. According to a study, the changes increased disposable incomes throughout the income distribution, with gains of 5% of income for the bottom decile and 1.6% for the top income decile.

A new law on indexation of social benefits was passed in November 2006. The law introduces price indexation for all benefits, except for contributory pensions (indexed to net wages). Finally, a limited modification of pension rules appears to be in preparation, although no important legislative acts are expected to be presented to parliament during the Slovenian presidency of the EU in the first half of 2008.

In **Slovakia**, the new Government which took office in August 2006 declared a strong commitment to reducing income inequality, poverty and social exclusion. An income-related Christmas bonus was paid to pensioners, while user charges for visits to doctors and hospitals were abolished.

Policy measures introduced in 2007 include higher social assistance benefit rates, a new supplement to the birth grant for the first child, as well as a rise in the minimum wage. The tax base for high-income groups was extended, while the VAT rate for pharmaceuticals was cut from 19% to 10%.

In addition, significant changes have been announced for 2008. In particular, the government intends to reform the system of support to those in material need, that is social assistance for low-income and vulnerable groups and households without sufficient income, including the so-called “subsistence minimum” (i.e. the minimum income standard).

In **Finland**, there is a dual tax system, comprising a proportional tax schedule operating at the municipal level and a progressive income tax structure set by central government. The municipal flat tax rate varies by location between 15 and 19.75%. The earned income allowance (which had gradually gone up from EUR 925 in 1999 to EUR 3,850 in 2005) was reduced in 2007 to EUR 3,250. As a result, tax receipts were expected to increase by EUR 185 million.

As regards the (progressive) state income tax, the top rate was brought down from 33.5% in 2005 to 32.5% in 2006 and 32% in 2007. The second highest rate was also reduced (from 25% to 24% in 2007). Moreover, the 14% tax bracket (for annual incomes between EUR 17,000 and EUR 20,000) was abolished, so that incomes in that range are now taxed at the 9% base rate. In addition, while most tax bands were uprated by around 1.8% in 2006-2007, slightly above inflation (at 1.3%), the threshold for the top marginal tax rates was increased by 4.5%, thereby reducing further the amount of income tax payable by those on the highest incomes. On the other hand, the maximum amount of the commuting expenses tax credit was raised from EUR 4,700 to EUR 7,000, while the corresponding amount of the earned income tax credit targeted at low-income earners, introduced in 2006, was increased to EUR 400 in 2007.

Furthermore, a new sickness insurance contribution on wage income came into effect in 2006. To improve the future viability of earnings-related pensions, employer and employee are set to increase by 0.2 percentage points in 2008. On the other hand, the VAT rate for labour-intensive services (such as hairdressing and small repair works) is to be gradually reduced from from 22% in 2007 to 8% in 2010 as part of an experiment to boost employment in these sectors, at an annual estimated cost of EUR 43 million. The wealth tax, at 0.8% of net wealth in excess of EUR 250,000 in 2005, was abolished entirely in 2006.

As regards social benefits, parental allowances were raised significantly in 2007. In addition, the child maintenance allowance was raised by approximately EUR 6 per month per child, while the special child care allowance and child disability allowance were increased by EUR 15. Finally, pensioners' housing and special care allowances were also increased slightly.

Unemployment benefit which used to be unlimited in duration is now paid for a maximum of 500 days, financed by central government, followed by tight activation measures requiring recipients to accept either a job or a place in a training programme. After 500 days, the cost of unemployment benefit is split evenly between central and local government, giving the latter an incentive to promote local employment. In addition, the mobility allowance (paid to jobseekers travelling for an interview or to a new job outside their commuting area) was increased by 40%. A travel allowance of EUR 23.5 per working day is paid to unemployment benefit recipients who accept full-time work for at least two months in a location outside of their commuting area, while employment agencies can pay relocation support to workers of up to a maximum of EUR 700.

In **Sweden**, there has been a shift in the direction of policy following the general election of September 2006. The incoming centre-right coalition government introduced a number of changes aimed at improving work incentives for low earners, for instance by introducing an earned income tax credit in 2007 and raising its level in 2008 and by reducing unemployment and sickness benefits.

According to official estimates, the number of benefit claimants of working age is set to fall from 1.1 million to 890 thousand by 2010, while the government calculates that this will have beneficial effects on incomes at the bottom end of the distribution. However, if changes in tax-benefit rules are considered in isolation, disregarding the potential effects on labour supply, then the changes introduced worsen the relative position of the lowest quintile and, as estimated by the government itself, increase income inequality.

Two of the changes proposed in the 2008 budget are likely to improve the position of high-income households: the abolition of wealth tax, and the transformation of property tax into a flat property charge at municipal level.

On the whole, income inequalities have risen over the past 15 years as a result of changes at the tails of the distribution, in the sense that both those with the lowest incomes have lagged behind and top earners have gained in relative terms, the latter being an international trend. Nevertheless, according to the latest data (for 2004), the degree of income inequality in Sweden remains the lowest in the EU.

In the **UK**, the effect of policy changes on poverty and inequality in 2007 are expected to be extremely small. Several elements of the benefit-tax system are linked to the change in prices or average earnings, although the family and baby elements of the child tax credit and the maximum payments for childcare within the working tax credit were not indexed. One notable change has been the massive increase in the income disregard for child tax credit/working tax credit assessment from £2,500 to £25,000 (i.e. from approximately EUR 3,500 to EUR 35,000).

Changes in the pipeline for 2008 and beyond include the abolition of the initial 10% income tax band; a reduction in the basic rate of income tax from 22% to 20%; an increase in the upper earnings limit for national insurance contributions to equal the threshold for payment of income tax at 40%, with the latter threshold increased by more than inflation; above-inflation increases in the values of tax credit thresholds and maximum child element in the child tax credit, and in the age allowances for income tax; an increase in the tax credit taper from 37% to 39%; and a slightly larger increase in the child benefit rate for the first child than implied by price indexation alone.

The above changes are estimated to have a significant effect on the risk of child poverty, projected by the Treasury to reduce the rate by 2 percentage points. Microsimulation analysis confirms this.

There is also some increase in incomes at the top end of the scale as a result of the tax rate cut, although the effect of this is partly offset by other changes, such as the higher upper threshold for national insurance contributions.

THE CANDIDATE COUNTRIES

In **Croatia**, an agreement between the government and the Pensioners' Party (*HSU*) was reached in October 2007 to improve the benefits of recent pensioners (i.e. those retiring after 1 January 1999), who had been adversely affected by earlier changes. In addition, child benefit was extended to families with a monthly income of less than kuna 1,663 (EUR 228) per person, at three rates of benefit, from around kuna 200 (EUR 27) to kuna 300 (EUR 41) a month per child, depending on income. Higher rates apply for large families and in the case of disability or for lone parents. Moreover, in October 2007 unemployment benefits were increased by 20% to kuna 1,200 (EUR 164). Finally, the basic level of social assistance is set to increase by 25% to kuna 500 (about EUR 69) per month in January 2008 for the first time since 2001.

In **Turkey**, tax policy changes included a reduction in income tax for minimum wage earners, a reduction in the corporate tax rate from 30% to 20%, and a reduction of the VAT rate for main food items from 18% to 8%. Moreover, the Green Card programme, providing health insurance to low-income groups, continued to expand, according to official statistics, covering 8.6 million people at a total cost of YTL 1.7 billion (EUR 1 billion) in 2007.

In addition, housing policies included the construction of low-cost dwellings for low-income families and the regulation of the mortgage market (not extending to mortgage interest tax relief). Finally, the minimum wage was raised by 10% in nominal terms, i.e. slightly above inflation (7.7% in the year to October 2007).

APPENDIX 1: SUMMARY TABLES OF POLICY CHANGES

Belgium

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in GRAPA	2007	Low income elderly population (65+)	Increase	None	Little change
Increase in RIS	2007-2008	Low income population in working age	Increase	None	Little change
Increase in minimum wage	2007	Low skilled workers working in the formal economy	Increase	None	Little change
Welfare adaptation of pension benefits	2005-2008	Retired population with low pension benefits	Increase	None	Little change
Increased child allowance for school related costs	2006-2007	Households with children	Increase	Increase	Little change
Increased child allowance for self-employed	2007	Self employed with children	Little change	Little change	Little change
Increased child allowance for long term unemployed entering employment	2007	Long term unemployed who entering employment	Increase	Little change	Little change
Increase in the subsidy on social security contributions of low skilled workers	2007	Low skilled population	Little change	Increase – Little change	Little change

Reduced social security contributions for elderly workers	2007	Elderly population	Increase	Uncertain	Little change
Increase in deductible work related expenses (employees)	2007–2008	Employees	Increase	Little change	Little change
Increase in deductible work related expenses (managers and company owners)	2007	Managers and company owners	Little change	Increase	Little change
Increased tax credit on savings	2007	Population in working age	Little change	Increase	Little change
Housing allowance (Brussels)	2008	Low income population living in Brussels	Increase	Little change	Increase (for the Region of Brussels only)
New OMNIO status	2007	Low income population	Increase	None	Little change
Reduced reimbursement of service vouchers	2007	Interim companies	Little change	Little change	Little change
Net overall effect of the above changes	n/a		Increase	Little change –Increase	Little change - Increase

** Date when policy became effective (i.e. not date of legislative approval)*

Bulgaria

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in minimum wage relative to average earnings	2007	Low paid	Increase	No change	Increase
Replacement of seniority bonuses to the wages	2007	Employed	Decrease	Decrease	No change
Tax deduction of social bonuses	2007	Employed	Little increase	Little increase	No change
Increase in public wages	2007	Civil servants	Uncertain	Uncertain	No change
Increase in average pension relative to earnings	2007	Elderly (60+)	Increase	No change	Increase
Increase in maternity leave for insured mothers	2007	Family with children	Little increase	Little increase	No change
Increase on minimum income threshold for social assistance benefits for heating	2006/2007	Low paid	Little increase	No change	Little increase
Net overall effect of the above changes	n/a	n/a	Increase	Little decrease	Increase

** Date when policy became effective (i.e. not date of legislative approval)*

Czech Republic

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)*		
Increase in the parental allowance	2007 (1.1.)	Family with small children (with children up to 4 years)	Increase	Little change	Uncertain
Increase in minimum wage relative to average earnings	2006	Low paid	Increase	No change	Uncertain
Existence minimum was set up	2007	Unemployed	Decrease	No change	Uncertain
Net overall effect of the above changes	n/a		Little change	Very little change	Uncertain

** Date when policy became effective (i.e. not date of legislative approval)*

*** Tax base of business companies being duty pay income after deduction of expenses*

Denmark

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in state pension supplement	2007	elderly (65+)	Increase	Little change	Little change
Change in calculation of housing benefits for old age pensioners	2007	Elderly (65+)	Increase	Little change	Little change
Decrease in parents payment for child care for children aged 3-6	2007	Parents	Little change	Increase	Little change
Change in tax system – employment deduction	2008	Person with earned income	Increase	Little change	Little change
Change in the tax system – change in median tax level	2008	Median income earners	Little change	Increase	Little change
Net overall effect of the above changes	2007		Little change	Little change	Little change

** Date when policy became effective (i.e. not date of legislative approval)*

Germany

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Additional top marginal tax rate in income taxation	2007	All tax payers	No change	Little increase	Little change
VAT increase	2007	All	decrease	decrease	Small decrease
Taxation of capital investment income and gains	2009	Mostly high income	Little change	increase	Decrease
Parental leave benefit	2007	Family with born child	increase	increase	Decrease
Reform of the health system	2009	All	unknown	unknown	Unknown
New evaluation of the Harz reform	2005–2007	unemployed	increase	decrease	increase

** Date when policy became effective (i.e. not date of legislative approval)*

Estonia

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Income tax rate decreased from 23% to 22%	2007	all income earners	increase	increase	little change
Supplementary non-taxable allowance extended to families with one children	2008	families with children	small increase	increase	little change
State unemployment allowance increased by 2.5 times	2006	unemployed persons	small increase	increase	little change
Increase of national pensions and the base amount of old age pension	2007	recipients of old age and national pensions	increase	little change	small increase
Differentiation of family benefits according to the number of children	2007	large families	small increase	little change	little change
Increase in minimum wage	2007	low paid	increase	no change	increase
Net overall effect of the above changes			n/a	n/a	n/a

** Date when policy became effective (i.e. not date of legislative approval)*

Ireland

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)*		
Increase in basic state pension relative to earnings	2007	elderly (65+)	increase	little change	increase
General increases in welfare payment rates, greater than wage indexation	2007	most welfare recipients	increase	no change	increase
Child-related payments for welfare beneficiaries	2007	families with children	increase	no change	increase
Family Income Supplement, increases greater than indexation	2007	low paid workers with children	no change	no change	no change
Top rate tax cut from 42% to 41%	2007	higher paid workers and self-employed	no change	increase	decrease
Net overall effect of the above changes	2007	All	increase++	increase+	increase

** Date when policy became effective (i.e. not date of legislative approval)*

Greece

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Benefit to "multi-children families" extended to families with three children only	2008	families with three children	uncertain	uncertain	uncertain
Income tax rates cut	2007-2008	taxpayers	no change	increase	decrease
Contributory unemployment benefit raised to 50% of the minimum wage in 2007 (55% in 2008)	2007-2008	jobless workers with the necessary contributions	increase	no change	small increase
ΕΚΑΣ (the income-tested supplement to low pensions) revalued by 22% in nominal terms	2007	low-income recipients of social insurance pensions	increase	no change	small increase
Income-tested social pension raised by 22% in nominal terms	2007	old age persons on low income and no access to a social insurance pension	increase	no change	small increase
Basic farmer pensions raised by 22% in nominal terms	2007	pensioners in rural areas	increase	no change	small increase
Net overall effect of the above changes			small increase	little change	little change

** Date when policy became effective (i.e. not date of legislative approval)*

Spain

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Income tax	2007	All taxpayers	increase	increase	Some increase
Social contributions	2007	Employees and self-employed	Some reduction	Some increase	Small reduction
Insurance pensions	2007	Pensioners	Some increase	Some increase	Some increase
Minimum pension	2007	Pensioners with low pension	Increase	unchanged	Some increase
Social assistance pension	2007	Low income elderly	Increase	No change	Some increase
Unemployment assistance	2007	Long-term and young unemployed	Slight increase	No change	Probably slight increase
Child Benefit	2007	Low income families with children	Fall in real terms	No change	Some reduction
Minimum wage	2007	Low earning families	Increase	No change	Increase

** Date when policy became effective (i.e. not date of legislative approval)*

France

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in the Earning tax credit	2007	Income tax liable households	increase	Little change	Increase
Exemption of tax and contributions on overtime	2007	All workers	increase	increase	Decrease ?
inheritance taxes quasi-abolished	2007	All	increase	increase	Decrease
Tax breaks on mortgage interest rate repayments	2007	All	increase	increase	?
Exemption for those subject to the wealth tax	2007	Wealth tax liable households	No change	increase	Decrease
Tax shield lowered	2007	Income tax liable households	No change	increase	Decrease
Back to work bonus	2006	Working poor	Small increase	No change	Little change
Active Solidarity Income	2007	Working Poor	Small increase	No change	Little change
Net overall effect of the above changes	n/a		increase	increase	Decrease

** Date when policy became effective (i.e. not date of legislative approval)*

Italy

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Personal income tax	2007	All taxpayers	Slight increase	Slight decrease	Little change
Family allowances	2007	Households with children with income below a given threshold	Slight increase	Slight decrease	Little change
Tax credits	2007	Households with children and dependent family members with income below a given threshold	Slight increase	Slight decrease	Little change
Supplementary pensions	2007	Pensioners with low income with less than mandatory contributory years	Increase	No change	Slight Increase
Net overall effect of the above changes	n/a	n/a	Slight increase	Slight decrease	Slight increase

** Date when policy became effective (i.e. not date of legislative approval)*

Cyprus

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Tax policy					
Personal income allowance raised to CY£10,750 (EUR 18,367) in 2007 and to CY£11,350 (EUR 19,393) in 2008**.	January 2007	tax payers	small increase	increase	decrease
The rate of VAT on a large number of goods and services was cut from 15% to 5%.	January 2007	consumers	little change	little change	little change
Social benefits					
Increased benefits to public assistance recipients aged 65+ living alone, to persons with disabilities, to low-income single parents, to large families and others.	July 2007	recipients of public assistance	small increase	no change	small increase
The supplement to low pensions increased in inverse relation to the original pension (discussed in more detail in part 3).	July 2007	low-income pensioners	small increase	no change	small increase
Net overall effect of the above changes			small increase	small increase	little change

** Date when policy became effective (i.e. not date of legislative approval); ** CY£1 = EUR 1.71 (10 December 2007).*

Latvia

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in the personal income tax allowance	2007	Income earners	Increase	Increase	Increase
Dependents allowance	2007	Income earners	Increase	Increase	Increase
Increase in maximum taxable income for social security	2007	Top income earners	No change	Little change	Little change
Change in real child benefit	2007	Families with children	Decrease	Decrease	Uncertain
Increase in guaranteed minimum income level	2007	Families in poverty	Increase	No change	Increase
Increase in minimum wage	2007, 2008	Low income earners	Increase	Little change	Increase
Increase in supplementary payments to old age pensioners	2008	Pensioners with 30 years service and pension below 135LVL/month	Increase	Little change	Little Increase
Lump-sum benefit in case of death of a spouse	2007	elderly (60+)	Little change	Little change	Little change
Increase in minimum old age pensions for those persons whose length of service is at least 41 years	2007	elderly (60+)	Little change	Little change	Little change
Payment to withheld part of	2007	elderly (60+)	Little change	Little change	Little change

pension for pensioners who worked after pension age					
Change in entitlement to additional payments to old age pension	2007	elderly (60+)	Little change	Little change	Little change

** Date when policy became effective (i.e. not date of legislative approval)*

Lithuania

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Reduction of income tax rate from 33 percent to 27 for all income groups (there is flat tax rate for all income groups in the country)	2006	Working population	Little increase (because not all people are wage earners in this group)	Increase	decrease
Reduction of income from work tax rate from 27 percent to 24 for all income groups (there is proportional tax rate for all income groups in the country)	2008	Working population	Little increase (because not all people are wage earners in this income group)	Increase	decrease
Increase of public pension (basic and earnings related parts)	2006	pensioners	Increase	No change	decrease
Increase of public pension (basic and earnings related parts)	2007	pensioners	Increase	No change	decrease
Maternity (paternity) leave was increased from 70 percent to 85 percent of compensatory wage	2007	Young families with child	No change	No change	No change

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Maternity (paternity) was increased from 85 percent to 100 percent of compensatory wage for the first 6 months. For the rest of it (next 6 months) the rate was not changed (85 percent)	2007	Young families with child	No change	No change	No change
Additional paternity leave was introduced only for father living in marriage 100 percent of compensatory wage is paid (duration 1 month).	2006	Young families with child	No change	No change	No change
Ceiling of child age was increased from 7 to 9 years	2006	Families with children	Increase	Little increase	Little decrease
Ceiling of child age was increased from 10 to 12 years	2007	Families with children	Increase	Little increase	Little decrease
Right to receive social assistance without waiting period (that was 6 mouths before) was introduced for several groups of vulnerable persons (people in pre retirement age, graduates of	2006	Vulnerable groups	Increase	No change	Little decrease

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
secondary and professional schools, disable people, mothers after maternity leave, ex-prisoners)					
Lowering threshold for apartment heating compensation (from 25 percent of families' total expenditures to 20 percent)	2006	Poor owners of apartments (mainly urban pensioners)	Increase	No change	Little decrease
Income threshold for social assistance from 155 to 165 LTL	2006	Social assistance recipients	Increase	No change	Little decrease
Income threshold for social assistance from 165 to 185 LTL	2006	Social assistance recipients	Increase	No change	Little decrease
Income threshold for social assistance from 185 to 205 LTL	2007	Social assistance recipients	Increase	No change	Little decrease
Means tested free meal for pupils. Income threshold increased from 247 LTL to 277 LTL	2007	Poor families	Increase	No change	Little decrease
Minimal wage increased from 550 LTL to 600 LTL	2006	Low wage earners	Increase	No change	Little decrease
Minimal wage increased to 700 LTL	2007	Low wage earners	Increase	No change	Little decrease
14-20 percent increase in	2006	Public employees of several	Little increase	No change	Little decrease

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
salaries in several areas (professions) of public sector (culture, social work, regulatory agencies of environment and agriculture, libraries)		sectors			
20 percent increase in salaries of medical staff in public health institutions	2007	Medical staff of public institutions	No change	No change	No change
10 percent increase in salaries of academics	2007	Academics	No change	No change	No change

** Date when policy became effective (i.e. not date of legislative approval)*

Luxembourg

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase of the long-term health care social contributions (from 1.0% in 2006 to 1.4% in 2007)	2007	Nearly everybody	Little decrease	Little decrease	No effect
Increase of the social assistance (RMG) and the minimum wage (1,9%) in line with the increase of the wages between 2003 and 2005**	2007	low income	Increase	No change	Little decrease
Increase of the pension (1,0%) in line with the increase of the wages between 2003 and 2005*** (the increase of 1,9% that had to take effect on 01/01/2007 has been delayed and split in two parts : 1% in July 007 and 0,9% begin of 2008)	2007	60 years and more	Little Increase	Little increase	Very little change
Failure to index tax allowances/ rates band not in line with inflation	2007	All "tax households" that pay income tax	Little change (decrease)	Little change (decrease)	Little change
Since 2006 family allowances	2006	Families	Little change (decrease)	Little change (decrease)	Little change

are no more indexed in line with the inflation contrary to the other types of income that continue (with a little delay compare to before) to be indexed					
Net overall effect of the above changes	2006 and 2007	All	Little change	Little change	Very little change

** Date when policy became effective (i.e. not date of legislative approval)*

*** Every two years, pensions (old age, survivor, and disability), the minimum wage and the minimum guaranteed income (social assistance) are indexed on the increase of the wage observed between t-4 and t-2.*

**** Every two years, pensions (old age, survivor, and disability), the minimum wage and the minimum guaranteed income (social assistance) are indexed on the increase of the wage observed between t-4 and t-2.*

Hungary

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase of VAT rate from 15 to 20	2006	Total population	decrease	little change	decrease
Increase of the top rate of income tax	2007	Total population	No change	Little decrease	increase
Lowered income cap for tax deduction	2007	Total population	No change	Little decrease	increase
Increase in the amount of widows' pension	2006–2007	Elderly widows	increase	No change	increase
Increase in gas and district-heating prices – new subsidy system	2007	Total population	little increase	decrease	increase
Setting a ceiling on the amount of the regular social assistance	2007	Deprived families with more children	little decrease	No change	little decrease
Visit fee	2007	Total population	little decrease	No change	No change
Introduction of tuition fees in higher education	2007	Families with children 18+	decrease	decrease	decrease

** Date when policy became effective (i.e. not date of legislative approval)*

Malta

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in basic state pension relative to earnings	2007	elderly (60+)	Increase	Increase	increase
Increase in pro-rata family benefits for part-time workers	2007	women	Increase	Little change	Little change
Extension of family benefits to public sector	2007	All income groups	Increase mostly for women	No change	No change
Raise income tax thresholds	2007	Low and middle-income earners	Increase	Little change	Little change
Inheritance of property tax	2007	All income groups	Increase	Little change	No change
Preferential tax rate on income from rental	2007	Low income groups	Increase	No change	No change
Adjustment of social security contributions levied on part-timers	2007	Mostly women	Increase	Increase	Little change
Adjustment in severe disability pension	2007	Persons with severe disability	Increase	No change	No change
Energy benefit	2007	Low income families	Increase	No change	No change
Child-rearing credits	2007	Low income families	Increase	No change	No change
Adjustment of widows/widowers pension	2007	Low income groups	Increase	Little change	No change

Increase in supplementary benefit	2007	Low income groups	Increase	Little change	No change
Net overall effect of the above changes	2006 – 2007	Mostly low income groups	increase	Little change	Little increase

** Date when policy became effective (i.e. not date of legislative approval)*

Netherlands

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Indexation of minimum benefit levels and minimum wages	2007	Minimum income beneficiaries and minimum wage earners	Increase	Little change	Little change
Less expensive child care provision;	2007	Working couples with children	Increase	Increase	Little change
Increase of child allowance with an average of 35 Euro per child per year	2007	All families	Increase	Increase	Little change
Decrease of 1.35% (to 3.85%) in employee contribution for unemployment insurance	2007	All employed people	Increase	Increase	Little change
Tax reduction for people in employment increases with 20 Euro and the complementary "combine" reduction for female job returnees with 80 Euro	2007	All employed / female employed	Increase	Increase	Little change
The general tax credit increases with 21 Euro	2007	Whole population	Little change	Increase	Little change
General tax reduction with 0.5% on the first and 0.05% on the second tax bracket	2007	Lower income population	Increase	Little change	Increase
The general old age pension	2007	All +65 population /	Increase	Increase	Little change

(AOW) and the pension for surviving dependants (ANW) both increase with 48 Euro per year		surviving dependants			
Implementation of the Social Support Act	2007	Population with (social) care needs	Decrease	Little change	Decrease
Net overall effect of the above changes	n/a		Increase / Little change	Little change	Little change

** Date when policy became effective (i.e. not date of legislative approval)*

Austria

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase negative tax for commuters	2008	Commuters with low income	marginal increase	no change	marginal increase
Extraordinary increase upper-contribution limit for social contributions	2006	Higher paid	No change	little decrease	little increase
Increase health insurance contributions self-employed, farmers	2006, 2007	Self employed, farmers	little decrease (mainly farmers)	little decrease (mainly self-employed)	no change
Indexation minimum pension-top-up	2006, 2007	Pensioners, social assistance recipients Vienna above 60 (females)/ 65 (males)**	increase	No change	increase
Changes family allowance	2008	Families with 3+ children	little increase	no change	little increase
Changes child benefit	2008	Families with children <2 years	increase	No change	little increase
Allowance 24-hour care	2007	Persons in need for 24-hours care	marginal increase	No change	marginal increase
Surcharges for extra work part-time employees	2008	Part time employees	marginal increase	No change	marginal increase
Net overall effect of the above changes	n/a		little increase	No change	little increase

** Date when policy became effective (i.e. not date of legislative approval)*

*** Benefit amounts in Vienna tied to pension-top-up.*

Poland

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Increase in the real level of family benefits and additions to them	Sep 2006	Families with children	Increase	No change	Little increase
One time payment to pensioners with the lowest benefits in the year when there is no indexation of benefits – the higher the lower is a benefit	Apr 2007	Retirees and pensioners	Increase	No change	
Decrease in the social security contribution rate (disability insurance) by 3 p.p.	July 2007	Active people paying social security contributions	Little increase	Little increase	Uncertain
Increase in minimum wage relative to average earnings	Jan 2008	Low paid	Increase	No change (in the short run)	Increase
Increase (almost 10 times, from 120 pln to 1145 pln) in yearly personal income tax deduction for every child	Jan 2008	Families with children	Little increase	Little increase	Uncertain
Decrease in the social security contribution rate (disability insurance) by 4 p.p.	Jan 2008	Active people paying social security contributions	Little change	Little change	Uncertain

** Date when policy became effective (i.e. not date of legislative approval)*

Portugal

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Agreement on settlement and evolution of guaranteed monthly minimum wage	2007/ 2011	Low Paid Workers	increase	No change	Little/medium increase
Increase in minimum wage relative to average earnings	2007	Low Paid Workers	increase	No change	Little increase
Reform of the Social Security	2007	Eldery (65+)	Increase	Decrease	Increase
Increase in social pensions relative to earnings	2007	Poor Eldery (65+)	Increase	No change	Little increase
Real increase in Minimum Income Transfers (RSI)	2007	Poor	Increase	No change	Little increase
Increase in child benefit for families with 2+ children	2007	large families	Increase	No change	Little increase
New pre-natal child benefit	2007	Poor	Increase	No change	Little increase
Net overall effect of the above changes	n/a				

** Date when policy became effective (i.e. not date of legislative approval)*

Romania

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Counting of an imputing informal earning for every person able to work in towards the family budget of social aid (GMI) claimants	Oct 2006	low income families	decrease	no effect	increase
Universal provision for new born children ("payment for first cloths"")	Jan 2007	families with new born children	little change	little change	little change
increased universal allowance for young children (up to 2 yrs old)	Jan 2007	families with young children	Increase	increase	little change
Allowance for first marriage	Jan 2007	newly married couples	increase	little change	little change
reduction of the minimum contribution period in the public health insurance scheme (from 5 yrs to 6 month)	August 2007	new entrants in the system	little change	uncertain	uncertain
Increase of the value point used in calculation of pensions and indexation of pensions	2007	pensioners	little change	little change	uncertain
Net overall effect of the above changes	n/a		increase	little change	little change

** Date when policy became effective (i.e. not date of legislative approval)*

Slovenia

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Change in PIT legislation	2007	All taxpayers	increase	(smaller) increase	increase
Change in indexation rule for social transfers	2007	All recipients of social transfers (except pensioners)	small decrease?	no change	small decrease?

** Date when policy became effective (i.e. not date of legislative approval)*

Slovakia

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Provision of "Christmas" allowance to pensions	2006	Pensioners (invalid, old-age)	Increase	No change	Little change
Increase in minimum wage	2007	Low paid	Increase	No change	Little change
Increase in benefit in material need and related allowances (social assistance scheme)	2007	Low income, poor households	Little change	No change	Uncertain
Decrease in VAT rate for pharmaceutics (from 19% to 10%)	2007	All inhabitants	Uncertain	No change	Uncertain
Abolishment of charges for visiting doctors and hospitals	2006	Low paid, poor	Little change	No change	No change
Introducing new supplement to allowance for birth of child (Supplement is only provided in case of birth the first child)	2007	Young families	Increase	Increase	Uncertain
Abolishment of non-taxable base for high income groups	2007	High income groups	No	Decrease	Uncertain
Net overall effect of the above changes	n/a	Persons and households with low income or without sufficient income, young families	Little change	No change	Uncertain

** Date when policy became effective (i.e. not date of legislative approval)*

Finland

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
State income taxation: decreased tax rates / tax band indexation	2007	All tax payers	Little change	increase	Decrease
State income taxation: increase in tax deductions and tax credit	2006–2007	All tax payers	Small increase	Small increase	Little change
Decrease in earned income allowance in municipal taxation	2007	Low paid	Small decrease	Little change	Small decrease
Wealth tax abolished	2006	Higher incomes	Little change	Increase	Decrease
Change in family and social benefits	2007	All	Little change	Little change	Little change
Activation measures affecting the Labour Market Support	2006	Unemployed	Little change	No change	Little change
Mobility, travel and relocation support	2007	Workers	Little change	No change	Little change

** Date when policy became effective (i.e. not date of legislative approval)*

Sweden

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Unemployment fee	2008	Insured employees	Little change	Little change	Little change
Reduction of earnings-formula for social insurance benefit purposes	2008	Those on sickness and parental leave benefits	Decrease	Little change	Decrease
Reduction of replacement rate to 75% in sickness insurance	2008	Unemployed	Decrease	Little change	Decrease
2 additional waiting days in unemployment insurance	2008	Unemployed	Decrease	Little change	
Limit on duration for part-time unemployed to 74 days if no dependants	2008	Unemployed	Decrease	Little change	Decrease
Change in housing allowance for pensioners – milder earnings-test	2008	Pensioners	Increase	No change	Little change
Increased earned income tax credit	2008	Employed	Increase	Increase	Decrease
Abolishment of wealth tax	2008	Wealthy	Little change	Increase	Decrease
Real estate tax to be replaced by new municipal property fee	2008	Home owners of valuable property	Little change	Increase	Decrease
Net overall effect of the above	2008	All	Decrease	Increase	Decrease

proposed changes for 2008					
Net changes also including other proposal since change in government in 2006	2007–2008	All	Little change	Increase	Decrease

** Date when policy became effective (i.e. not date of legislative approval)*

UK

Change in policy	When? (year)*	Groups affected	Likely effect on income of bottom 20%	Likely effect on income of top 20%	Income share of bottom 20% relative to top 20%
			(increase/ decrease/little change/ uncertain)		
Price indexation of most elements	2007	all	Depends on growth in original incomes: little change	Depends on growth in original incomes: little change	Little change/uncertain
Earnings indexation of pension credit	2007	60+ women; 65+ men	Increase relative to prices (small)	No change	Small increase
Earnings indexation of child tax credit maximum child amounts	2007	Low/middle income families with children	Small increase relative to prices	No change	Small increase
Freezing of family and baby elements in CTC	2007	Low/middle income families with children. Biggest net effect in small families, and those with babies	Small decrease	No change	Small decrease
Freezing of childcare limits in WTC	2007	Low/middle income families with children and at least one parent in employment. Biggest net effect on those with expensive childcare	Small decrease	No change	Small decrease
Increase in income that is disregarded during the year for CTC/WTC assessment from £2,500 to £25,000 (sic)	2006**	All except high income families	Uncertain – will increase payments and hence income for some but timing and incidence are unclear	Uncertain – will increase payments and hence income for some but timing and incidence are unclear	Uncertain: on average an increase, probably
Net overall effect of the above					Uncertain

changes					
Changes announced in the 2007 Budget (March) but not implemented until later years					
Change in policy	**When? (year)***	**Groups affected**	**Likely effect on income of bottom 20%**	**Likely effect on income of top 20%**	**Income share of bottom 20% relative to top 20%**
Abolition of the initial 10 per cent income tax band (in 2008).***	2008	Income taxpayers	Some lose up to a flat amount	All lose a flat amount	Increases slightly
Reduction in the basic rate of income tax from 22 to 20 per cent (in 2008).	2008	Income taxpayers	Increase (for some)	Large increase	Large decrease
An increase in the Upper Earnings Limit for NICs to equal the threshold for payment of income tax at 40 per cent, with the latter threshold increased by more than inflation.	2009	Upper-middle earners	None	Gainers and losers	Uncertain
Above-inflation increases in values of tax credit thresholds and maximum CTC child element.	2008	Low-middle income families with children; low paid	Increase	None	Increase
Above-inflation increases in the age allowances for income tax.	2008	Elderly with private incomes	Increase	Increase/uncertain	Uncertain
Increase in the tax credit taper from 37 to 39 per cent.	2008	Low-middle income families with children; low paid	Decrease (for some) but note this balances reduction in income tax rates	None	Uncertain

A slightly greater increase in Child Benefit for the first child than implied by price indexation alone.	2010	Families with children	Small increase	Small increase	none
Net overall effect of the above changes					Increase

** Date when policy became effective (i.e. not date of legislative approval)*

*** The policy is introduced in 2006 but won't have an effect until 2007 or 2008 since it relates to the amount of CTC/WTC that families must pay back if their incomes rise.*

**** As announced in the 2007 Budget, a tax rate of 10p will continue to apply to people with investment income that would previously have been taxed at that rate (i.e. to the extent that other income does not exceed the equivalent of the former 10p band). Those eligible will have to apply to have their tax deducted in this way and it is not obvious that take-up of this concession will be 100%.*

APPENDIX 2: SUMMARY LITERATURE REVIEW

Belgium

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Peeters A., Gevers A. and Sanders D. (Idea Consulting) (2007): "Evaluation du régime des titres-services et employs de proximité 2006". Rapport final à la demande du Service public fédéral Emploi, Travail et Concertation sociale, 2006.

Price Waterhouse Coopers (2007) : Audit financier du système des titres services pour les emplois et services de proximité

http://www.emploi.belgique.be/WorkArea/showcontent.aspx?id=10286

Service Publique Fédéral Economie, PME, Class Moyennes et Energie: "La Statistique sur les Revenus et les Conditions de Vie:Résultats de l'enquête SILC-2004, 2006.

Bulgaria

Ministry of Labour and Social Policy (2006), National report on social protection and social inclusion strategy 2006-2007

The report analyse effectiveness of the current policy toward poverty and social inclusion and recommend broader coverage of active labour market programs for long-term unemployed and targeted policies for families with children

Council of Ministers (2006) National Pact for Social Development

The government, national trade unions and employers' organisations in September 2006 have approved the document. Joint goals for increase of real wages and promoting labour market flexibility are declared and related to specific policy measures.

Palmer E. (2007) Bulgarian pension reform and the development of pension system, World Bank Working Paper

The paper is an evaluation of the World Bank's support in pension reform to Bulgaria since the beginning of the 1990s. The focus of the evaluation is on the mandatory individual financial account scheme that was implemented beginning in 2000. Positive effect of the reform on

financial stabilization is underlined. There is a Data Annex at the end of the report that provides a statistical overview of the country's economy and demography and key pension data.

Angelov G., (2007), Flat rate taxes, Bulletin for Low Taxes, issue 24/2007

The article analyse planed reform for implementation of flat tax rate on income taxes, minimum income subject of taxation and their effects on the wage differentiation.

Czech Republic

Večerník, J.: Disparities in earnings and household income

Occasional Paper No. 4/2006 of the Institute of Economic Studies of the Faculty of Social Sciences of Charles University.

Pre-1990 Czechoslovakia was characterized by the equalization of earnings and, within remaining disparities, by the predominance of individuals' demographic characteristics (gender and age) over their market abilities (skills and occupation) in determining earnings levels. Household income was largely dependent on the number of active earners in a household and the life cycle, and the household budget was overburdened by expenditures on basic needs. The appropriate adjustment of household income would therefore have to apply a steep equivalence scale.

After 1989, the reform process began to rapidly transform the established earnings and income structures. The overall range of inequality in earnings has increased, as have, in particular, returns to education. On the other hand, the gender gap has diminished and the age profile of earnings has become almost flat. In addition to education, occupation also matters much more, owing to the appreciation of managerial and intellectual work, as does industry, and the wage structure by branch has changed considerably. The effect of life cycle has almost disappeared and, even, wider disparities in individual earnings allowed replacing contribution of additional active member in upper income categories.

Packaging of household income is quite different now from what it was 15 years ago. More inequalities are produced by the labour market and the state intervenes more to equalize them. However, the composition of income sources in household income has changed much less than the composition of the economic status of members in households. From the opposite perspective, the new situation in earnings opportunities has given families more decision-making freedom regarding their labour market participation. The former two-earnings model has given way somewhat in favour of a dominant role being taken up by the household head's earnings.

Denmark

A study by the economic council of the labour movement estimates that the tax reform is mostly in favour of people in the top 30 %. These will get a tax deduction on average of 5.000 DKK (666 Euro) while people in the bottom 20 % will get close to nothing.

Germany

Bach, S., G Corneo and V. Steiner (2006): "Top Incomes and Top Taxes in Germany", CESifo working paper, 1641.

Blos, K. (2006), Haushalte im Umfeld des SGB II, IAB-Forschungsbericht 19/2006. Nürnberg

Blos, K. and H. Rudolph (2005), Simulationsrechnungen zum Arbeitslosengeld II: Verlierer, aber auch Gewinner. IAB-Kurzbericht 17/2005. Nürnberg.

Becker, I. and R. Hauser (2006), Verteilungseffekte der Hartz-IV-Reform. Ergebnisse von Simulationsanalysen. edition Sigma. Berlin.

Boeters, S. , C. Böhringer, T. Büttner and M. Kraus (2006) Economic Effects of VAT Reform in Germany, ZEW Discussion Paper No. 06-030

Clauss, M. and M. Schnabel (2007): "Distributional and Behavioural E¤ects of the

German Labour Market Reform", ZEW working paper.

Eichhorst, W. and K. F. Zimmermann (2007): "there were four... How many (and which) measures of active labor market policy do we still need ? : Finding a balance after the evaluation of the Hartz reforms in Germany", DIW Discussion papers, n° 685.

Fuest, C. , A. Peichl, T. Schaefer (2006): "Does Tax Simplification yield more Equity and Efficiency? An empirical analysis for Germany", Finanzwissenschaftliche Diskussionsbeiträge, 06-05, Center for Public Economics, University of Cologne

Konle-Seidl, R., W. Eichhorst and M. Grienberger-Zingerle (2007): "Activation policies in Germany : From status protection to basic income support'', Institut für Arbeitsmarkt- und Berufsforschung der Bundesagentur für Arbeit, Nürnberg, IAB discussion paper, n° 6/2007, 79 p..

Spiess, K. and K. Wrohlich (2006) The Parental Leave Benefit Reform in Germany: Costs and Labour Market Outcomes of Moving towards the Scandinavian Model, IZA discussion paper 2372.

Schmitz, H. and V. Steiner (2007): " Benefit-Entitlement Effects and the Duration of Unemployment: An Ex-ante Evaluation of Recent Labour Market Reforms in Germany", DIW discussion paper 678

Estonia

Võrk, A., Paulus, A. (2007). Peredele suunatud rahaliste toetuste mõju vaesuse leevendamisele Eestis: analüüs mikrosimulatsioonimeetodi abil [The effect of cash support to families on alleviating poverty in Estonia]. Uurimisraport [Research Report]. PRAXIS Center for Policy Studies.

http://www.sm.ee/est/HtmlPages/peretoetused_2007/$file/peretoetused_2007.pdf

The study analysed the role of cash benefits and tax concessions aimed at families with children on reducing poverty in Estonia. A tax-benefit microsimulation model was used with Estonian Household Budget Survey 2000-2005. The model examined benefits paid on the basis of the State Family Benefits Act and the Parental Benefit Act, as well as the additional tax allowance related to the number of dependant children prescribed by the Income Tax Act. Both absolute and relative poverty levels were used to measure poverty. The analysis showed that during 2000-2005, state family benefits, parental benefit and additional tax allowance together reduced the number of children living below the relative poverty line by almost one-third – a drop of 10 percentage points in child poverty rates (from 28% to 18%). Benefits have resulted in the greatest reduction in poverty among families with three or more children – about 20-percentage points reduction (from 42% to 22% percentage). Similar conclusion holds when using absolute poverty levels. The benefits targeted to large families are also the ones, which reach the poor to the greatest extent and are the most cost-effective in reducing poverty. The study also concluded that the newly introduced parental benefit and the additional tax-free income on the second child and especially on the first child are relatively costly measures when it comes to reducing poverty among families with children.

Masso, M., Pedastsaar, K. (2006). Puuetega inimeste toimetuleku ja vajaduste uuring.

[The study on coping and needs of persons with disabilities] Uurimisraport [Research Report]. Ministry of Social Affairs. http://www.sm.ee/est/HtmlPages/Puuetega_inimeste_uuringu_raport/$file/Puuetega_inimeste_uuringu_raport.pdf

The study aimed at mapping the needs and problems of disabled persons and evaluating access to and appropriateness of existing services and benefits for disabled persons. A sample survey with 967 respondents was conducted. The average net household income of disabled persons in 16-74 age group comprises 74% of the national average. 33% of disabled persons considered that they have major economic problems to cope, while among the working age disabled persons this share was even 40%. 96% of disabled persons have additional costs related to their disability, mostly on medicines, transport and technical aids. Only 28% of disabled persons evaluated the available social services to be of sufficient quality and quantity. Access to services

appears to be better in major towns and more problematic in smaller municipalities. 70% of respondents noted psychological barriers on applying for benefits or services.

Tiit, E.-M. (2006). Vaesuse suundumused Eestis aastail 2000-2004. [Poverty trends in Estonia in 2000-2004]. Ministry of Social Affairs, AS Resta.

http://www.sm.ee/est/HtmlPages/VaesusesuundumusedETveebi/$file/Vaesuse%20suundumusedETveebi.doc

The study was based on data of the Household Budget Surveys of the Estonian Statistical Office from 2000-2004, covering over 30000 households (the average size of the household is 2.4 persons). Poverty trends were analysed using three different poverty thresholds: absolute poverty line (defined by national experts, equivalence scales 1:0.8:0.8) and two relative poverty lines (income below 60% of the median household income, equivalence scales respectively 1:0.7:0.5 and 1:0.5:0.3). Data indicate that over 2000-2004 the share of households with incomes below the absolute poverty line dropped from 26.8% to 14.2% reflecting a steady increase in real incomes. At the same time the share of households in relative poverty remained broadly constant at the level of 13-14% in case of equivalence scales 1:0.7:0.5 (or 15.5-16% in case of equivalence scales 1:0.5:0.3). Significant changes were observed in poverty risk factors over the period of 2000-2004. Poverty rate of households with non-working head of household increased from 18% to over 50%. In 2000 no significant differences were observed between poverty rates of Estonian and non-Estonian households (respectively 16.3% and 15.2%). By 2004, the poverty rate of Estonian households had declined to 13.7%, whereas the poverty rate among non-Estonian households increased to 19.1%. The poverty rates of families with children dropped over the period of 2000-2004, in case of 2 children from 17% to 10.9%, in case of 3 or more children from 18.5% to 13.6%. The latter developments were attributed to changes in family policy.

Tiit, E.-M. (2006). Elatusmiinimumi ja vaesuspiiride hindamise metoodika ning sotsiaalsete indikaatorite leidmisel kasutatavate tarbimiskaalude kaasajastamine [Updating of equivalence scales which are used in calcuating minimum living standards, poverty lines and other social indicators]. Ministry of Social Affairs, AS Resta.

http://www.sm.ee/est/HtmlPages/Elatusmiin/$file/Elatusmiin.II%20osa%20veebi.doc

On the basis of actual consumption behaviour of households in 2004 (data of the Household Budget Survey), it was argued that the equivalence scales 1:0.7:0.5 are the most adequate to evaluate poverty and living standards in Estonia.

Ireland

The official documentation accompanying the budget includes a microsimulation based analysis of the distributional impact of tax and social security/social welfare policy changes. However, the baseline for this study is an "opening budget" which involves freezing tax and welfare parameters in nominal terms, rather than the indexation benchmark used in the special analysis undertaken here.

Greece

Matsaganis M. and Flevotomou M. (forthcoming) Effetti distributivi degli sgravi fiscali degli interessi sui mutui ipotecari in 10 paesi europei [Distributional effects of mortgage interest tax relief in 10 European countries]. In: Chiara Saraceno (ed) 2º Rapporto biennale sulle disuguaglianze economiche e sociali, 2007-2008. Fondazione Ermanno Gorrieri per gli studi sociali, Modena.

Even though the distributional effects of mortgage interest tax relief tend to be regressive, the topic remains relatively under-researched. The paper uses the European tax-benefit model EUROMOD to quantify these effects in 10 West European countries. The analysis reveals that higher-income groups capture a disproportionate share of total expenditure on mortgage interest tax relief in all countries. This effect is strongest in Denmark and the Netherlands, and least strong in Sweden. The paper concludes with a discussion of results and their policy implications.

Matsaganis M., O'Donoghue C., Levy H., Coromaldi M., Mercader-Prats M., Rodrigues C.F., Toso S. and Tsakloglou P. (2007) Family transfers and child poverty in Greece, Italy, Spain and Portugal. In: O. Bargain (ed) Micro-simulation in action: policy analysis in Europe using Euromod. Elsevier – Research in Labor Economics 25 101-124.

The paper examines the effect of family transfers on child poverty in Greece, Italy, Spain and Portugal. Family transfers are defined as to include non-contributory child benefits, contributory family allowances and tax credits or allowances. The drive to reduce child poverty is of particular interest in southern Europe, where public support to poor families with children is often meagre or not available at all. The paper uses the European cross-country microsimulation model, EUROMOD, to assess the distributional impact of existing family transfers and to explore the scope for policy reforms, before it concludes with a discussion of key findings and policy implications.

Papatheodorou C. (2006) The structure of household income and the distributional impact of income taxes and social security contributions. In: M. Petmesidou and E. Mossialos (eds) Social policy in Greece. Ashgate, Aldershot.

The study analyses the distributional impact of income taxes and social security contributions in Greece using micro-data of a 1988 survey on approximately 3,000 households. The results show that, despite progressive taxation, net income is only marginally more equally distributed than gross income. Tax evasion, found to vary tremendously by income source, seems to provide the key explanation for this finding. The main policy implications are: (a) the importance of redesigning the structure of income taxes and social security contributions; (b) the absolute priority of the elimination of tax evasion, mainly among those with incomes from enterpreneurial activities; (c) research into the distributional effects of government policies in areas other than income tax and social contributions (e.g. indirect taxes, social benefits etc).

Papadopoulos T. (2006) Support for the unemployed in a familistic welfare regime. In: M. Petmesidou and E. Mossialos (eds) Social policy in Greece. Ashgate, Aldershot.

The study explores welfare support for the unemployed in Greece, and the role it occupies in the reproduction of the Greek welfare regime. It argues that the levels of welfare support for the unemployed in Greece are extremely low by international standards, while access to them is restricted to only small numbers. Against this background, it appears that for the majority of unemployed people it is the family that acts as the main support for their decommodification, i.e. their survival outside the market on some minimum living standard. This in turn reinforces and reproduces the familistic character of the Greek welfare regime, highlighting the important economic function is called upon to play in a period of rapid economic and social change.

Petmesidou M. (2006) Social care services: catching up amidst high fragmentation. In: M. Petmesidou and E. Mossialos (eds) Social policy in Greece. Ashgate, Aldershot.

The study examines the main aspects of organisation, funding and delivery of care services. This is followed by an analysis of recent trends in service provision for specific age and category groups (children and families, elderly people and the disabled). The chapter concludes with a discussion of the deadlocks, challenges and prospects for the development of formal care services in a country that lags behind in welfare state formation, has a barely developed universalistic policy framework, concerned with the needs of all, and fares poorly in public service performance. Yet, Greece is poised to expand social care provision under pressing societal and demographic changes, albeit in a European policy context that emphasises budgetary austerity and cost containment – and in an era characterised by a never-ending search for innovation in policy agendas (upholding user involvement, co-production, empowerment etc.) and in governance frameworks for securing clear outcomes. However, up to now, the latter issues have had little influence on policy debates in Greece.

Tsakloglou P. and Mitrakos T. (2006) Inequality and poverty in Greece in the last quarter of the twentieth century. In: M. Petmesidou and E. Mossialos (eds) Social policy in Greece. Ashgate, Aldershot.

The paper examines the structure and the inter-temporal trends of inequality and poverty in Greece during the period 1974-1999 using the data of the HBSs. Regarding inter-temporal changes, the results show that in the period under examination both inequality and relative poverty declined substantially, although most of the observed changes took place during the sub-period 1974-1982. To the extent that aggregate welfare can be considered a positive function of average consumption and a negative function of the inequality in its distribution, the results suggest that aggregate welfare rose substantially but non-linearly during this period, while poverty declined very considerably in absolute terms. Again, most of the change took place between 1974 and 1982.

With respect to the structure of inequality it is shown that it is due primarily to disparities within rather between socio-economic groups. The only partial exception to this rule was observed when the population was grouped according to the educational level of the household head. A number of population groups were found to face high relative poverty risks and have disproportionately high contributions to aggregate poverty. Most important among them were the members of rural households, the elderly, the members of households headed by pensioners, unemployed or persons engaged in agricultural activities and members of households headed by persons with low educational qualifications.

Matsaganis M. (2006) Muddling through: trials and tribulations of social security in Greece. In: M. Petmesidou and E. Mossialos (eds) Social policy in Greece. Ashgate, Aldershot.

The paper reviews recent developments in social security policy. It concludes that the 2002 pension legislation will certainly, if temporarily, take pensions off the political agenda. Nevertheless, the issues raised by the debate remain largely unresolved. Most significantly, contributory pensions are propped up by a heavy dose of state finance, distributed unevenly and inequitably between social insurance funds. The clearer separation of contributory from non-contributory benefits (funding the latter out of general taxation and the former through employee and employer contributions), is a promising policy path recently taken in Italy and Spain that provides a more favourable framework in which to assess alternative options. For instance, the redeployment of state finance away from subsidies to social insurance funds and towards a distinct, non-contributory pension programme would allow the incorporation of existing instruments (minimum pensions, social pensions and the supplement to low pensions ΕΚΑΣ) into a rational and more effective system of income support in retirement. Such a programme would be large enough, on a fiscally neutral basis, to enable the provision of a universal basic pension of about EUR 200 a month to all residents aged 65 and over.

Rationalizing pension spending is necessary per se, but is also a means to shift the balance back towards benefits other than pensions. As seen earlier, the social safety net currently in place is fragmented and ineffective. Creating a social security system that is more comprehensive in scope and more universal in coverage, but not less affordable for that, requires redesigning the current structure of benefits. This would certainly be demanding in terms of political and organizational resources, though not necessarily so in terms of financial resources. By way of illustration, the recent introduction of unemployment assistance for older workers should be extended to all long-term unemployed and first-time job seekers (provided, of course, that they live in low-income households). The existing family allowances and many-children benefits should be amalgamated into a single benefit payable from the first child. The plethora of disability allowances should also be merged into a single benefit with supplements for extra needs. Housing benefits should be extended to all low-income tenants irrespective of contributory record. Last, but not least, all of the above should be underpinned by a guaranteed minimum income scheme that will combine cash support in case of extreme hardship with individual social re-integration plans.

The history of social security in Greece demonstrates that reform proposals that can be shown to constitute 'positive sum' solutions, in the sense that the gains of winners are larger than the losses of losers, can nevertheless be neutralized by the latter's effective mobilization. Those who stand to lose most from reform are overrepresented in trade unions and political parties of all colours. In contrast, those who stand to gain most (the poor, the unemployed, precarious workers, women and the young – including the proverbial future generations) have a much weaker voice. Therefore, reform can only be successful if supported by a broad advocacy coalition, uniting those discriminated against by the current system with those prepared to argue for change even though personally better off under the status quo.

Matsaganis M., O'Donoghue C., Levy H., Coromaldi M., Mercader-Prats M., Rodrigues C.F., Toso S. 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.

The drive to reduce child poverty is of particular interest in southern Europe, where public assistance to low-income families with children is often meagre or not available at all. The paper examines the effect of income transfers to families in Greece, Italy, Spain and Portugal using a benefit-tax model. The distributional impact of actual programmes is shown to be weak, hence the scope for reform great. As an illustration, the European benefit-tax model EUROMOD is used to simulate universal child benefits equivalent to those in Britain, Denmark and Sweden. The anti-poverty effect of such benefits is found to be in proportion to their fiscal cost.

Spain

Prieto, M. and Garcia, C. (2007) "Tendencias de la distribución personal de la renta en España (1985-2002). Inferencia sobre indicadores y sensibilidad ante encuestas y escalas de equivalencia", Hacienda Pública Española / Revista de Economía Pública, 181-(2/2007): 49-80.

This paper analyses the distribution of personal income in Spain using data from Continuous Household Expenditure Survey (base year 1985 and 1997), and the European Community Household Panel. Identical microdata methodologies are used for the purpose of verifying if both databases indicate coincident trends using a variety of equivalence scales. Results consistently show that the evolution of income inequality can be divided in three phases: fall in the late 1980's, increase in the yearly 1990's and fall in the late 1990's and early 2000's. As for poverty incidence, four phases can be distinguished: fall in the late 1980's, increase in the yearly 1990's, fall in the late 1990's and rise in early 2000's.

Ahamdanech, I. y García, C. (2007), "Bienestar, desigualdad y pobreza en España (1993-2000). Un análisis basado en técnicas inferenciales de dominancia estocástica", Hacienda Pública Española/Revista de Economía Pública, 180, 53-78.

This paper applies inference-based stochastic dominance methods to study welfare, inequality and poverty in Spain in the period 1993- 2000, using data from European Community Household Panel. Arguably, there are two advantages of this methodology: on the one hand, the stochastic method uses explicit and widely accepted value judgement. On the other hand, the use of statistical inference allows studying the significance of the results. The main findings are:

- *income inequality falls after 1996 although at lower rate in 1999 and 2000.*
- *income distribution worsened (in terms of welfare, inequality and poverty) between 1993 and 1996.*
- *there is no clear Lorenz dominance between years 2000 and 1999, 1997 and 1994, and 1993 and 1995. The fall in income inequality is clear from 1996.*

Despite the improvements on income distribution, within the EU-15, Spain still only dominates Greece and Portugal in terms of welfare, inequality and poverty.

Barcena, E. and Cowell, F. (2006) "Static and Dynamic Poverty in Spain, 1993-2000", Hacienda Pública Española / Revista de Economía Pública, 179-(4/2006): 51-77

This paper focus on the statics and dynamics of poverty in Spain using income data from the first eight waves of the European Community Household Panel. The results confirm the pattern of poverty changes noted by other authors for the early nineteen-nineties. After this period

poverty reduces slightly in incidence and intensity, but 2000 is a turning point. In the dynamic perspective, the pattern revealed is one of much mobility, but most of it short-range.

Díaz, S., Picos, F., Moreno, A., Torrejón, L and Antiqueira, M. (2007) "La reforma del IRPF de 2007: una evaluación de sus efectos", presented at XIV Encuentro de Economía Pública, Santander, 1-2 de Febrero de 2007, available from http://economiapublica.com/ponencias/1.2.pdf

This paper presents and assesses the main changes of the Spanish income tax reform implemented in 2007. The aims of the reform are slight revenue reduction, more equitable treatment of personal and family circumstances, simplification of the tax schedule, reduce the tax burden on earnings, and reduce tax distortions on savings. The reform is assessed using a microsimulation model (Microsim IEF Renta 1.0) based on administrative data from taxpayers.

France

Allègre, G. and H. Périvier (2006): "Prime pour l'emploi et minima sociaux : la lisibilité au détriment de l'équité ? ", *lettre de l'OFCE*, 267

Hagneré C, M. Plane and H. Sterdyniak (2006): "Réformes fiscales 2007: un pas de cote…", *lettre de l'OFCE*, 267

Landais, C. (2007): "Les hauts revenus en France (1998-2006) : Une explosion des inégalités ? », Ecole d'Economie de Paris, Paris, juin, 46 p.

L'Horty, Y. (2007) : « Des hausses du Smic en trompe-l'œil entre 1999 et 2006 @, Centre d'Etude de l'Emploi, n. 43.

Sterdyniak, H (2007) : « Low-skilled Jobs: The French Strategy", OFCE working paper, 2007-15.

Italy

Bosi, P. , Guerra, M.C. (2007), I tributi nell'economia italiana, Il Mulino.

Guerra, M.C., Zanardi, A. (2007), La finanza pubblica italiana, Rapporto 2007, Il Mulino.

INPS , Instituto Nazionale della Previdenza Sociale, Circolare INPS n.88 del 18 maggio 2007.

Ministero dell'Economia e delle Finanze (2007), Relazione generale sulla situazione economica del paese 2006.

Cyprus

Pashardes P. (2007) Who benefits, and by how much, from the social measures 2007-08? Economic Policy Comment no. 15 (July 2007). Nicosia: University of Cyprus.

The recent measures to strengthen social cohesion by and large achieve their objective, which is to support low-income groups. Benefit increases are targeted and reduce income inequality and poverty. However, this is not the case with the increase in the personal income tax allowance, although this measure is desirable for other reasons. This increase in personal income tax allowance partly offsets the effect of increases in social benefits, and will result to overall income gains which in money terms are no greater for low-income groups than they are for high-income groups – although, obviously, relative to original income, the improvement is more significant at lower incomes. Overall, the net effect was expected to be a reduction in poverty by 1.4 percentage points, and a similar fall in inequality. In money terms, disposable income gains were almost uniform across the distribution. Considerable room remains for the improved targeting of social policy measures.

Hajispyrou S., Nicolaidou N. and Pashardes P. (2006) Income inequality in Cyprus, 1985-2003. Economic Policy Paper no. 04-06. Nicosia: University of Cyprus (in Greek).

The aim of this paper is to analyse income inequality in Cyprus on the basis of data from the Family Expenditure Surveys. Firstly, descriptive statistics are presented, calculating income inequality by using two different measures: (a) the simple difference between real equivalent income of each household and mean income, and (b) the percentage difference between real equivalent income of each household and the mean income. In terms of simple differences, inequality in Cyprus has increased over the last 20 years; in terms of percentage differences, the opposite seems to be the case. Both measures show that some population categories are clearly worse off: single parent families, multi-member households whose head has only had primary education, or is pensioner, or unemployed, or a private employee, or self-employed. Finally, households whose head is inactive, or a pensioner, or unemployed or a private employee, or self-employed occupy low positions in the income scale.

Latvia

Rungule R, Sniķere S, Hazans M and others (July 2007) Bezdarba un sociālās atstumtības iemesli un ilgums (Unemployment and the causes and duration of social exclusion) ESF National Programme "Labour Market Studies" LR Welfare Ministry.

This study is one of the Ministry of Welfare National Programme labour markets research projects and is aimed at examining the role of unemployment in generating and prolonging social exclusion in Latvia. It is a very large study containing a wealth of descriptive material, however within it is a solid economic and econometric analysis of the Latvian labour market by M Hazans. It is confirmed that lack of education and non-Latvian ethnicity are risk factors in unemployment. More importantly, the study contains the first sophisticated analysis of ALMPs in Latvia. Using a matching function approach Hazans shows that for every 11 unemployed

engaged in training this will result in one extra job match. Moreover, the training is cost effective. (Web link: http://sf.lm.gov.lv/esf/print.php?doc_id=47)

Oksana Žabko (ed); with contributions from: Alf Vanags, Mark Chandler, Vjačeslavs Dombrovskis,, Anderjs Jakobson and others (2007) Optimāla, nodarbinātību veicinoša nodokļu un pabalstu sistēma (An Optimal Employment Promoting Tax and Benefit System) ESF National Programme "Labour Market Studies" LR Welfare Ministry

This study is another in the Ministry of Welfare labour market research projects and offers a comprehensive account of the current tax-benefit system. There is an informal analysis of how key features of the system might affect employment eg. the in-work tax system, social insurance benefits, state policy aimed at parental employment, and evaluation of municipality benefit systems as well as evaluation of the effectiveness of exchange of information among the intermediary institutions. A micro simulation model of Latvia was developed and used to analyse the impact of changes in various policy parameters on the incentive to work as measured by average and marginal effective tax rates. Policy experiments included: introducing a progressive element to the personal income tax and increasing the income tax allowance (Web link: http://sf.lm.gov.lv/esf/index.php?main_page_id=5&page_type=d_cat&second_page_id=31)

World Bank (2007) Latvia: Sharing the high growth dividend, A living standards assessment Report No 38437 LV

The report examines the extent and causes of poverty reduction in Latvia during the period 1998 to 2004. It is estimate3d that 325,000 people moved out of poverty during that period. It is shown that the benefits of growth were widely shared and that increased employment and earnings were the primary channels. There was some improvement situation of the regions as well as of women, though differences continue to persist.

Lithuania

Ministry of Social Security and Labour (2007) The Social Report 2005-2006

(Web link: http://www.socmin.lt/index.php?-35863044

This government publication gives an overview of social protection measures was taken in 2005-6. It discusses the main guidelines of the labour policy and its implementing activities - promotion of qualitative employment and respective regulation of labour relations. It also covers the social insurance and pension policy in a detailed manner. Publication discusses novelties regarding social integration. A big part of the chapter focuses on the problems of childcare, which are still relevant in Lithuania.

Luxembourg

Berger F. (2006). Regard sur la pauvreté monétaire et la redistribution des revenus en 2004. Population & Emploi n°17, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art1131.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=203020b8711c464f213e

Using EU-SILC data (version delivered to Eurostat in 2005), this paper gives an overview of the situation of the monetary poverty and the income redistribution in Luxembourg in 2004.

In 2004, 11% of the population was at risk of poverty (risk of poverty line = 60% of the national median equivalised income).

This risk is higher for a lone parent family, for a family with 3 or more children, for a household in which the work intensity is low. The risk diminishes in households composed of pensioners.

Compared to the other member states, Luxembourg shows a relatively good situation.

The different poverty indicators show a relative stability of the situation over the last years.

The tax-benefit system, one aim of which is the redistribution of income, reduces indeed the income inequalities. Before the implementation of the tax-benefits system the 20% richest are 5.7 times richer than the poorest 20%. This indicator falls to 3.4 after the tax-benefit system.

Berger F., Jeandidier B. (2005), Accompagner une réforme fiscale: avec une prime pour l'emploi ou avec une hausse des allocations familiales? Cahier PSELL n° 142, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art1048.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=203020b8711c464f213e

France and Luxembourg have recently implemented a quite similar tax reform (decrease of the tax rates). These two reforms differ nevertheless by the types of attendant measures: the "prime pour l'emploi " in France and an exceptional rise of the family benefits in Luxembourg. These reforms have been analysed ex ante by simulations and the results are in this paper (vertical and horizontal redistribution).

We emphasize more the comparative analysis of the impact of the attendant measures, in particular with a simulation under a fixed budget.

We have shown that the two tax reforms have strong similarities concerning the vertical redistribution (anti redistributive). However, we have also underlined that the two attendant measures correct differently the anti-redistribution impact of the reduction of the tax rates. In France, the « prime pour l'emploi » offsets almost the anti-redistributive effect of the decrease

of the tax rates. In Luxembourg, the rise of the family benefits cannot offset the anti-redistributive impact (that is more important than in France) of the decrease of the tax rates.

Berger F. (2004), Approche monétaire et approches alternatives de la pauvreté : situation en 2003. *Population & Emploi n°06, CEPS/INSTEAD*

http://www.ceps.lu/pdf/3/art1028.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=203020b8711c464f213e

Using the 2003 EU-SILC data (version delivered to Eurostat in 2004), four approaches of the poverty (monetary, subjective, material deprivation and relationship deprivation) have been analysed.

Berger F. (2004), L'impact du loyer fictif sur la distribution des revenus. *Population & Emploi n°02, CEPS/INSTEAD*

http://www.ceps.lu/pdf/3/art1003.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=203020b8711c464f213e

In this paper, we try to show the impact of the « imputed rent » on the income distribution. When the imputed rent is included in the income, the income inequalities decrease. Nevertheless, the risk of poverty does not decrease significantly, but the composition of the population at risk changes (for example, the risk of poverty of the old-age persons and of the owners decreases significantly).

Berger F. (2004), Revenu disponible, niveau de vie et indicateurs d'inégalités : bilan sur la période 1994-2001. *Population & Emploi n°01, CEPS/INSTEAD*

http://www.ceps.lu/pdf/3/art773.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=203020b8711c464f213e

This paper offers an overview of the evolution of the main indicators of poverty and income distribution between 1994 and 2001. The main result is that these indicators are stable over this period.

Berger F. (2003), Le système socio-fiscal luxembourgeois : analyse des effets de son évolution entre 1998 et 2002 à l'aide de cas-types. Population & Emploi n°02, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art764.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=203020b8711c464f213e

Taking hypothetical households, this exercise tries to measure the effects of the change of the tax-benefit system between 1998 and 2002. The main results that have been observed are the following: the net income has risen for everybody but the rise is more important for initial incomes around the level of social assistance (RMG) and also for high incomes.

Berger F. (2001), Revenu et niveau de vie des personnes âgées. Population & Emploi (série jaune) n°15, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art710.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=20308dd89d4c5c727522

This analysis shows the evolution of the income of the old-age persons between 1987 and 1997. In general, the income of the old-age persons has increased more than the income of the rest of the population. At the same time, the poverty rate of the older has decreased between 1987 and 1997.

Fusco A. (2006) La pauvreté : pas qu'une question d'argent. Vivre au Luxembourg n°20, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art1094.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=20308dd89d4c5c727522

Using EU-SILC data, this paper describes the living conditions of the population of Luxembourg.

Reinstadler, A., Ray, J-C., Kop, J-L., Jeandidier, B. (2003), Les enfants pauvres au Luxembourg et en Europe. Comment se positionne le Luxembourg, comparativement aux autres pays de l'Europe, du point de vue de la pauvreté des enfants ? Cahiers PSELL n°138, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art765.pdf?CFID=5436&CFTOKEN=92693505&jsessionid=20308dd89d4c5c727522

Using ECHP data (first three waves), this paper compares the child poverty in the European countries and focuses especially on Luxembourg. At first sight, for the poverty rate, it appears that children of Luxembourg are not well-classified (10th of the 14 countries). Taking other criteria, this image changes a lot. Considering the equivalised income, the living conditions and the subjective poverty, the situation of the children of Luxembourg is among the best in Europe.

Frising A., Haag A., Langers J. (2006), Rapport travail et cohésion sociale, STATEC.

http://www.statistiques.public.lu/fr/publications/conjoncture/cahiersEconomiques/2006/101_cohesion_sociale/101_cohesion_sociale.pdf

Using LFS data and SILC data, this report describes the situation of the labour market and the situation of the social cohesion.

REINSTADLER Anne (2007), Le risque de pauvreté se transmet-il entre générations ?, Vivre au Luxembourg n°31, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art1183.pdf?CFID=278298&CFTOKEN=83840689&jsessionid=2030b986cf5e4f751147

Using EU-SILC data, this paper shows that the importance of the intergenerational transmission of poverty in Luxembourg.

BERGER Frédéric (2007), Le travail ne suffit pas toujours à préserver de la pauvreté, Vivre au Luxembourg n°33, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art1192.pdf?CFID=278298&CFTOKEN=83840689&jsessionid=2030b986cf5e4f751147

Using EU-SILC data, this paper describes the situation of the working-poor in Luxembourg.

VILLERET Anne, VAN KERM Philippe (2007) Difficile de joindre les deux bouts ? La satisfaction des ménages luxembourgeois quant à leur situation financière, Vivre au Luxembourg n°36, CEPS/INSTEAD

http://www.ceps.lu/pdf/3/art1198.pdf?CFID=278298&CFTOKEN=83840689&jsessionid=2030b986cf5e4f751147

Using EU-SILC data, this paper describes the satisfaction of the population regarding their financial situation

Hungary

Barabás Gyula. (2007): Nyugdíjreform – az adórendszer és az alacsony foglalkoztatottság csapdájában. Budapest: Portfolio (Pension reform – in the trap of low employment and the tax system)

The aim of the article is to have an overview about the Hungarian pension system, and to draw some solutions. The problem with the Hungarian pension system is that there are very few people who would pay taxes, therefore the rate of taxes are high. The employment rate on the Hungarian labour market is also extremely reduced. The third problem-factor is getting to have an aging population.

As a possible result it seems to be necessary to enhance the participation on the labour market. It is also necessary to extend the stay on labour market it would mean that people went in retirement later. The replacement rate of the Hungarian rent is large at the moment so to reduce the replacement rate seems to be curtailed. People has to be initiates to have more children. People contribute not only with taxes but with the children brought up in the family to the maintenance of the pension system. A Deputy Director of The Hungarian Central Bank wrote the article

Firle Réka – Szabó Péter András (2007): A rendszeres szociális segély célzottsága és munka-kínálati hatása, Közpénzügyi füzetek 18., 2007. április

(Targeting and labour supply effect of the regular social assistance)

Using the 2003 Household Budget Survey, it had been estimated the take-up rate of regular social assistance to be around 55-57%. 83% of recipients come from the poorer third of households. About 30 % of the recipients, however, are ineligible claimants. Being well informed and having a strong link to the labour market are the factors that have the largest effect on the likelihood of claiming the benefit: the probability of receiving such benefits is almost 35% lower among those with no prior labour market experience. Higher school qualifications significantly reduce the likelihood of benefit receipt, which may be partly attributed to the stigmatising effect of the benefit.

Using quarterly Labour Force Survey data for 2001-2004, the authors found that both unemployed recipients of regular social assistance and persons on public work are less likely to enter non-subsidised employment than other unemployed or inactive persons. Controlling for observed characteristics, they found that the chances of male benefit recipients to take up employment in the next quarter are 35% lower than those of their non-benefit-recipient counterparts, while the same ratio for females was 30%. Other factors reducing the probability of employment include the duration of unemployment (by 4-6% per month) and the unemployment rate of the region (by 8% per percentage point). Due to the lower probability of finding a job, benefit recipients remain unemployed two years longer than their nonrecipient peers. This, however, may be attributable to the non-observed characteristics of recipients.

Scharle Ágota (2007) : The effect of welfare provisions on female labour supply in Central and Eastern Europe, Journal of Comparative Policy Analysis, 9, p.157 – 174

Former socialist countries in Central and Eastern Europe encouraged women to work full time and provided various in-kind and cash transfers to mothers. Female labour supply was high under socialism but decreased sharply during the transition to a market economy. The empirical analysis of eight new member states of the European Union suggests that labour market conditions, rather than welfare policies, explain most of the decline in female participation during the transition.

Economic restructuring brought about rising unemployment and increasing returns to education in Eastern European labour markets. Cash family benefits and in-kind transfers were trimmed in most countries, though enrolment in kindergarten remained high in several CEE. Though high female participation was customary in the socialist system, traditional attitudes to male and female roles survived and are apparent in the division of work in the household.

A detailed analysis of these factors showed that the public provision of day care encourages female participation in the old member states of the European Union, and also in the new member states. Cash benefits reduce female participation and this effect is considerably stronger in the new member states. Female unemployment significantly reduces female participation and also shows relatively large variation across new member states. In the early stage of the transition cash transfers dropped more dramatically than spending on day care, which was never high in some CEEs, and the combined effect should have been increased female participation. It seems more likely then that the decline in female participation in the early 1990s was driven by labour market disruptions, and especially the sudden rise in unemployment. However, family policies have a significant impact on current variation in participation rates across CEE. The combination of low cash benefits and high spending on day care helps keep participation high (as in Latvia and Lithuania), while large cash benefits keep women out of the labour force even if day care is available and labour market conditions are favourable (as in Hungary).

Köllő János (2006) Workplace Literacy Requirements and Unskilled Employment in East-Central and Western Europe – Evidence from the International Adult Literacy Survey (IALS), Paper presented at the conference Unemployment and labour markets in transition economies, EBRD-London Business School, 21-22 June, 2007

Primary degree holders have extraordinarily low employment rates in Central and East European (CEE) countries, a bias that largely contributes to their low levels of aggregate employment. The paper looks at the possible role for skills mismatch in explaining this failure. The analysis is based on data from the IALS, an international skills survey conducted in 1994-98. Multiple-choice models are used to study how educational groups and jobs requiring literacy and numeracy were matched in the CEEs (Czech Republic, Hungary, Poland and Slovenia) and two groups of West-European countries. The results suggest that selection to skill-intensive jobs was more severely biased against the less educated in the CEEs than in the rest of Europe including countries hit by high unskilled unemployment at the time of the survey (UK, Ireland, Finland). The paper concludes that the skill deficiencies of workers with primary and apprentice-based vocational qualification largely contribute to the unskilled unemployment problem in the former Communist countries, more than they do in mature European market economies.

Szalai Júlia (2007): Nincs két ország …?, Osiris, Budapest (We don't have two countries, do we…?)

The book draws up the balance of the transition in Hungary. The main thesis of the monograph is that the transition in Hungary is uncompleted yet. The communist regime had been eroded but we are not at the threshold of the free bourgeoisie democracy. The reason of that people

believed that eliminating the formal political system would be enough to complete the transition. However the formal part of the transition is finished the informal part is not at all began.

People are not matured enough to live without the care taking state. The civil society is not able to control the state. For that reasons we can speak about the state and – separated from the state – civil society. So the answer for the question indicated in the title 'We don't have two countries, do we…?' the answer is 'No, we have indeed two countries.' We will build up two countries as long as there is a mismatch between the overspending state and the civil society, which originally should have a control over the state.

Kertesi Gábor (2006): A társadalom peremén. Romák a munkaerő-piacon és az iskolában, Osiris, Budapest (On the margin of the society: Roma on the labour market and in the school))

This is a volume of essays and studies about roma/gypsies. The book has three mayor parts. In the first two parts the consequences of the transition is analysed.

The first part analyses the status of the gipsy population on the labour market. In this part those reasons are summed up why roma people are not able to take part on the labour market. The author is dealing with many social mechanisms among others with the discrimination on the labour marker.

The second part is dedicated to the education. An overview is given about the educational level of gipsies. The roma population is monitored with the help of macro statistics.

The third part is the methodological part of the volume. The reader can find studies about the estimation of the roma population in Hungary, or about the conceptualisation of the notion roma.

Malta

Zerafa, M. (2006) 'The Relationship between Unemployment Benefits and Labour Market Participation: an analytical report for Malta', Faculty of Economics, Management and Accounting, University of Malta (unpublished Master's dissertation)

The study provides a broad analysis of unemployment benefit programmes so as to determine the difference between in-work and out-of-work benefits and whether the tax-benefit system provides an incentive to participate in the labour market. The study suggests that unemployment assistance often results in a disincentive to seek paid work, and concludes with recommendations for a tax-benefit system that reduce financial dependency on the state and encourages the transition from unemployment to work.

The study suggests that one type of intervention for unemployed persons would be removing the current minimum social security contribution and introducing a flat social security payment; a 12-month in-work benefits scheme for the long-term unemployed who enter the job market within the first 6 months; 12 months in-work benefits to beneficiaries of special unemployment benefits; 12-month in-work benefits for unemployed who embark on entrepreneurship together with the option of a single tax declaration for their spouse; the merging of the social security department and the Employment and Training Corporation for better screening and monitoring; a jobseeker screening instrument that identifies the at-risk of long-term unemployment; a motivation screening instrument after 6 months in employment.

The type of analysis used for the study is a joint bivariate probit model for labour force and welfare programme participation for Malta that seeks to understand determinants of welfare dependency by heads of household in low-income brackets and beneficiaries of unemployment assistance. The study suggests an increase labour supply through discouraging state dependency and promoting a transition from unemployment to work.

Ministry for the Family and Social Solidarity, Malta (2006) *The Pension Reform Act – Malta*

The Bill to implement the Pensions Reform titled the "Social Security (Amendment) (No. 2) Act, 2006" was debated in Parliament during 2006. The Bill was adopted and became law on the 7th December 2006 by virtue of Act XIX of 2006. Legal Notice 336 of 2006 brought into force the majority of the articles of the Act with effect from the 1st January 2007.

The Act includes significant changes to the current national social security pension system to be introduced gradually for a smooth transition. Primary concerns were the maximum pension income, pension indexation to wages, increase in statutory retirement age, changes to the accumulation and calculation perimeters of the two/thirds pension, private pensions and the channelling of pensions contributions to the Health Fund.

Gradual increase in pension age; early retirement opt-out clause; revision of the applicable and maximum pensionable income; reform elements to the first pillar pension; credits of social security contribution to child rearing parents.

A Pensions Working Group was set up following the tabling of the White Paper on Pension Reform in 2004 which indulged in national consultations, discussion with relevant stakeholders and the media and commissioned four major studies that include social and economic impact assessments.

Legal Notice 336 brought into force the majority of the articles in the Act with effect from 1 January 2007 so as to attain an adequate and sustainable pension system in Malta.

Ministry for the Family and Social Solidarity, Malta (2006) National Report on Strategies for Social Protection and Social Inclusion 2006 – 2008

The report highlights that poverty and risk of poverty impinges on various life aspects such as employment, education, culture and leisure, housing and social welfare. Such factors are in turn likely to influence the level of social inclusion and thus need to be addressed.

Malta considers employment to be important both in terms of achieving economic growth as well as for promoting social integration. Malta's labour market strategy highlights a number of strategic thrusts to generate economic development and secure inclusion for both males and females through employment. These include:

- *investing in human capital through education and lifelong learning to enhance the skills level for the labour market;*
- *raising the employment rate, particularly of women and those above the age of 55 years;*
- *addressing labour market distortions, such as labour market mismatches between required and available skills and the black market economy;*
- *improving quality and productivity at work;*
- *promoting an inclusive labour market;*
- *offering equal opportunities by operating and extending employment schemes;*
- *modernising the public employment sector; and*
- *deploying/redeploying public sector employees more efficiently.*

The report suggest that the main objective of this employment strategy is to increase the overall employment rate through the provision of more flexible and adaptable forms of work organization such as paid parental leave, optional reduced hours and teleworking to promote worklife balance.

Affordable housing also plays an important role in promoting better prospects for social inclusion. While the Housing Authority in Malta already has in place various schemes that help those most in need and provide affordable housing, government is considering the amalgamation of the Housing Authority, the Social Housing Department and the Housing Construction and Maintenance Department with a view to rationalise and get better value for money from this sector.

Further to the above initiatives, Malta's social inclusion policy also recognises the need to set up measures to ensure the continued sustainability of its social welfare system. In order to ensure that benefits are awarded only to those who are in need and eligible, Malta is:

a) considering the introduction of a single means-testing mechanism to

determine eligibility for benefits and services;

b) strengthening its Benefit Fraud and Investigation Directorate; and

c) reforming its Invalidity Pension and other social benefits systems.

The report adds that demographic ageing, coupled with modest economic growth, unemployment and fiscal balance challenges, are imposing tensions on the sustainability of the social protection system. In raising the retirement age, the pension reform directly contributes to economic growth and employment retention. By tightening the link between earned income, contributions and pension rate such reforms also encourage formal activity and declared work across a longer working life cycle. Such work patterns contribute towards more personal savings thus reducing the risk of poverty in old age. Besides making employment and longer working lives more attractive, the pension reform promotes adequacy and sustainability. The pension reform also contemplates a Second Pillar pension scheme to complement the present Two-Thirds social security pension. The proposed pension reform process shall be phased in gradually with stages targeting different age cohorts. This process shall undergo ongoing structured reviews to ensure that the reformed pensions system is viable and being managed strategically.

Netherlands

NN (2007). Armoede en sociale uitsluiting bij kinderen. Notitie op verzoek van de leden van de PvdA-fractie in de Tweede Kamer. The Hague: Social and Cultural Planning Office (SCP). 12 p.

(Title:Poverty and social exclusion of children). Paper on request of the Members of Parliament of the social democrat party Partij van de Arbeid. In this paper, researchers of SCP give an overview of child poverty in the Netherlands on the basis of SCP's suggestions for a "new poverty threshold". The paper comes to the conclusion that poverty research focused on children is lacking in the Netherlands. It suggests to fill this gap, which could also improve policy development on the subject of child poverty. Research questions could include the following:

- *Is poverty concentrated with children having specific risk characteristics, other than e.g. ethnicity, living environment…?*
- *Which forms of social exclusion are theoretically and empirically linked to children?*
- *What factors are underlying poverty and social exclusion of children, and are these open for policy influence? More in particular the link between social exclsuion and poverty and health are to be studied.*

- *What are the long term consequences of poverty and social exclusion during childhood?*

Gerda Jehoel-Gijsbers, Cok Vrooman (2007). *Explaining Social Exclusion*. The Hague: Social and Cultural Planning Office (SCP). 42 p.

Although social exclusion has become a key issue on the European policy agenda in recent years, both the social phenomena the term refers to and the best way to monitor these remain unclear. In response to this, we developed a conceptual model for social exclusion and a methodology for its empirical assessment. Social exclusion is conceived as a multidimensional concept. It is operationalized as a combination of material deprivation; insufficient access to social rights; a low degree of social participation; and a lack of normative integration. In a survey among 860 Dutch households we found a valid scale which expresses the degree of social exclusion in a single figure. This measure indicates that about 11% of the adult population may be regarded as socially excluded.
A causal analysis subsequently showed that having a bad health is the most important risk factor. Other main determinants of social exclusion are a low income, benefit dependency, limited Dutch language skills, and living in a one-parent household.
The outcomes suggest that it is worthwhile to strive for a specific measurement of social exclusion as such; and that the concept should not be equated with shortfalls in income and labour participation, as the current European policy debate tends to do.

Gerda Jehoel-Gijsbers (ed.) (2007). *Beter aan het werk. Trendrapportage ziekteverzuim, arbeidsongeschiktheid en werkhervatting.* The Hague: Social and Cultural Planning Office (SCP). 238 p.

(Title: Better at work. Incapacity for work and reintegration). The high rate of sickness absenteeism, the large number of disability benefits paid and the low labour participation rate of people with an incapacity for work have for decades been problems which have demanded and received a great deal of attention, including from 'Europe'. In the past decade many radical policy measures have been introduced, culminating for the time being in the creation of a new disability arrangement, the Work and Income according to Labour Capacity Act (wia) (2006).

The current state of affairs:

- *In 25 years time, sickness absenteeism decreased from 10% in 1980 to more than 4% in 2005;*
- *Sickness absenteeism of women is still higher than that of men, but decreased faster during the last couple of years;*
- *The last 5 years, the number of new recipients of the invalidity pension decreased from 13 per 1000 employees in 2001 to 4.5 per 1000 in 2006;*

- *Women are more often declared invalid for work than men, but the last few years their number decreased faster than that of men;*
- *The employment participation rate of handicapped people decreased from 44% in 2000 to 40% in 2005;*
- *Within 12 months after getting the invalidity pension, ca. 15% of employees returns to work.*
- *Since 2000 the number of men leaving the invalidity pension scheme for work decreased, while the same figure for women increased, more in particular for women with young children.*

Wil Portegijs (SCP), Brigitte Hermans (CBS), Vinodh Lalta (CBS) (2007). *Emancipatiemonitor 2006. Veranderingen in de leefsituatie en levensloop.* The Hague: Social and Cultural Planning Office (SCP). 343 p.

(Title: Status of the emancipation process: summary of key results)

Once every two years the Social and Cultural Planning Offi ce (scp) and Statistics Netherlands (cbs) compile the Emancipation Monitor in order to shed light on the emancipation process. The Monitor presents an array of figures designed to indicate whether the emancipation process is moving in the desired direction. What that desired direction is, is determined by the government and parliament and laid down in the Long-range Policy Plan (Meerjarenbeleidsplan) (tk 2000/2001 and tk 2005/2006b). This fourth Emancipation Monitor presents fi gures on education, paid employment and income, unpaid work, the representation of women in senior decision-making positions and violence against women. It also contains three more in-depth chapters which draw comparisons respectively between the Netherlands and other countries in the combination of employment and care tasks, between women in urban and rural areas, and between different generations of women.

An important objective of emancipation policy is to raise the labour market participation rate of women. The target for 2010 is that 65% of women aged 15-64 years should be employed for at least 12 hours per week. The interim target for 2005 was 58.5%; that target was not achieved. The activity rate of women has been rising in the Netherlands for several years and is high compared with most other EU countries. However, that increase has been faltering in recent years. In 2002 54% of women aged 15-64 had a job for 12 hours a week or more, and this share has not increased since then.

The employment of volume of women (i.e. the average working hours in full-time equivalents of all women aged 15-64 years, including those not in work) was 0.42 fte in 2005.

The income women receive from employment is not always sufficient to give them economic independence. 42% of women aged 15-64 years earned at least 70% of the minimum wage in 2004 and were therefore economically independent; the figure for men was 69%.

Rob Bijl, Jeroen Boelhouwer, Evert Pommer (eds.) (2007). *De sociale staat van Nederland 2007*. The Hague: Social and Cultural Planning Office (SCP). 352 p.

(Title: The Social State of the Netherlands 2007).

How is the Dutch population faring? That is the central question addressed in this fourth edition of The Social State of the Netherlands. In order to answer this question, the book describes the position of the Netherlands and the Dutch today in a number of key areas of life, and explores whether any changes have taken place over the last ten years. Have there been improvements in people's income? Are more people in employment? What is their housing situation? Non-material aspects of people's lives are also explored. Can any trends be identified in the education level of the Dutch population? How physically and psychologically healthy are the Dutch? And what of the social cohesion in the Netherlands: for example, are we seeing an increase or a decrease in political participation and in voluntary work? A large body of survey databases and national records were consulted in answering these questions.

- *The proportion of Dutch population being satisfied with its government increased from 48% in 2004 to 65% in 2006. In 2006, 82% of Dutch population says to be "happy" or "very happy";*
- *Labour market participation rate increased from 63% in 2004 to 65% in 2006. Among women: 56%in 2006; among older people (+55) 42%.*
- *Among the Dutch population born between 1975-1979, the percentage of high educated women is higher than that of men (in 2005 men: 35% - women: 38%)*
- *Successful secondary school leave percentage increased from ca. 85% in 1995 to ca. 92% in 2005.*
- *Starting families acquire ever later a one family home; older people stay longer than before in a one family home.*

NN. *Investeren in vermogen - Sociaal en Cultureel Rapport 2006* (2006). The Hague: Social and Cultural Planning Office (SCP)

The 17th Social and Cultural Report is different from previous ones: no broad description of developments in a multitude of sectors. It follows a thematic approach looking for inspiring examples and successful perspectives in different fields. Two examples:

- *Successful ethnic minorities in education and labour market: In 10 years time the number of non-western students in higher education more than doubled, from 6% in 1995 to more than 12% in 2005. Looking at the labour market, 1/3 of Surinamese citizens between 15 and 65 years belongs to the middle class. 17% of citizens with a Turkish background has a profession on middle or higher level. For people with Moroccan background this figure is 14%.*
- *Of all working mothers with children younger than 18 y. some 10% has a job for at least 35 hours a week. The last decade the number of full time working mothers increased from 136,000 in 1996 to 180,000 in 2005. These mothers are relatively high educated and have more than average a job on higher or scientific level. From interviews it is known that flexible working time is crucial for these mothers in order to combine paid work with the care for children.*

Austria

Studies and reports produced after 2005 on issues relating to income distribution, poverty and social exclusion, including those aimed at assessing the effects of policy, and summarise their main conclusions:

Statistik Austria (2007): Einkommen, Armut und Lebensbedingungen 2005. Ergebnisse aus EU-SILC 2005, Vienna: In-house publication.

The study analyses the latest available data on poverty in Austria. For 1995 to 2001 the ECHP was used as database for poverty reporting. In 2003, it was replaced by the EU-SILC.

In 2005 (incomes 2004) the risk-of-poverty threshold (60% of the median equivalised income) amounted to 10,796 Euro for a single household per year. About 1,001,000 persons in Austria were living in households with an equivalised income below the threshold. The risk-of-poverty rate was 12% (men: 11, women: 13). According to age-groups, the poverty rates reached 15% for people below 16 years, 11% for people between 16 and 64 years and 14% for people aged 65+.

A very high risk is faced by non-EU citizens (30%), single females (23%), lone-parent-households (27%) and families with three or more children (21%).

Employment tends to be an effective factor in avoiding risk-of-poverty. For people in employment (as their main activity) the at-risk-of-poverty rate is 7%, which is notably below the average of the total population. In contrary, unemployed people (47%) bear a risk substantially above average. On the household level, the highest risk-of-poverty rate, 28%, holds for households where no one in working age is employed. In households with full

employment participation (all persons aged 20 to 64 permanently full-time employed) the risk-of-poverty is at a below-average value of 4%.

State benefits are of high importance in Austria, making up 27% of total household income on average. The largest cash benefit is pensions. On the other hand, other benefits also play a significant role. In case of lone parents for examplesocial transfers without pensions constitute 29% of total income. (The benefits reduce poverty substantially: Without any transfers, the at-risk-of poverty-rate would stand at 43%, without transfers excluding pensions at 24%.

Due to the change in the survey (from ECHP to EU-SILC in 2003) no actual data on long-term-poverty is available.

Biffl G. (2007): Development of the Distribution of Household Income in Austria

Gudrun Biffl, WIFO Working Papers, No. 293.

The paper looks at disposable household income in the year 2003 and its evolution over time (based on EU-SILC vs. microcensus data). It puts emphasis on the earnings level at the lower end of the distribution and its development over time. It aims at establishing an objective picture of income inequality in Austria by using several standard measures.

The ratio of the mean income of the 90% up from the bottom to the income of the 10% up from the bottom was 3.3 in 1999 and 3.2 in 2003. In 2003 3.8% of the after-tax income went to the top 1% of the population. Thus, the share of the top 1% of the population is amongst the lowest in the developed world, comparable to the Netherlands and Sweden.

The value of the SCV (Squared coefficient of variation) index has continuously increased between 1983 and 2003, suggesting a widening of inequality of disposable household income over time. It rose in the decade after 1983 by 1.4 points (from a level of 19.9 in 1983 to 21.3 in 1993) and in the following decade by 8.8 points, whereby the rise was concentrated upon the early years of 2000 (to 22.5 in 1999 and 30.1 in 2003). The value of the MLD (mean log deviation), in contrast, has had a different development over time: it declined between 1983 and 1993 slightly (from 10.3 in 1983 to 10.1 1993), while it increased thereafter significantly (to 13.0 in 1999 and 13.3 in 2003). This suggests that the deviation of income from the mean has diminished at the lower end in the 1980s and increased significantly in the 1990s and early years of 2000, while it has increased all along at the upper end of the income scale. The income spectrum widened at the lower end of the income scale above all in the 1990s, while it expanded at the upper end above all in the early years of 2000. With an SCV index level of 30.1 in 2003 (22.5 in 1999), Austria's degree of inequality is similar to the Netherlands (30.8 in 2000) and lower than in Sweden (45.4 in 2000).

Also the MLD index level of 13.3 in 2003 (after 13 in 1999 and 10.1 in 1993) is at the lower end of income inequality. Lower values can only be found in the Netherlands (11.7 in 2000) and Sweden (10.6 in 2000). These indicators and their development over time suggest that disposable income of Austrian households clusters more around the mean than in most other countries in the EU. However, in the 1990s and early years of 2000, income inequality has increased.

In 2003, the Gini coefficient of the disposable income distribution of the entire population was 25.9, i.e., almost the same as in 1999 (25.2). However, the Gini coefficient has increased significantly between 1993 and 1999 (by 1.4 points) while it had stagnated between 1993 (23.8) and 1983 (23.6). With a level of the Gini coefficient of 25.9 in 2003, the Austrian income distribution corresponds to that of the Netherlands; only Denmark has a lower degree of income inequality with 22.5 in 2000.

Between 1999 and 2003, income inequality has increased in Austria for the population of working age. All 3 indicators, i.e., the Gini coefficient, SCV and MLD) have increased. These increases were small in comparison to what happened in the case of the distribution of disposable income of the retirement age population. Both at the top and bottom end of the income distribution did the variance or deviation from the mean increase significantly.

Real median income per capita of the entire population has risen between 1999 and 2003 by 15.5% or EUR 133 to EUR 988, while declining in the 1990s. The median of real disposable household income of the retirement age population increased more than proportionately compared to the median real household income of the population of working age.

Poland

Czapinski J. and T. Panek (ed.) (2007), Diagnoza społeczna 2007 (Social Diagnosis 2007), Rada Monitoringu Społecznego, Warsaw.

It showed that despite more and more people in Poland are satisfied with the economic situation in the country (19 percent in comparison to 13 percent in 2005), regions with high structural unemployment are still the ones with underdeveloped infrastructure. Difficulties with successful inclusion into the labour market have often their roots in weak geographical and educational mobility of the unemployed. At the same time, the authors estimated that around half of the unemployed register at a labour office only to be entitled to health care insurance, and in fact they are either non-active or work in informal sector (grey economy employment was estimated at around 1 million).

Lodz University (2007) PROFIT: Policy Responses Overcoming Factors in the Intergenerational Transmission of Inequalities www.profit.uni.lodz.pl

The international EU funded project was finished and several reports were published. One of the conclusions was that the impact of the EU on social policies, especially in the new Member States, was very important to formulate strategies for combating poverty and social exclusion. Since 2006 'child mainstreaming' has been an important part of the EU social agenda, which helps in counteracting the intergenerational transmission of inequalities.

Institute of Labour and Social Studies (IPiSS) (2007) *Poverty, Social Exclusion and Methods of Combating Them* bieda.ipiss.com.pl/EN

Project resulted in publication structured around following topics: methodological issues (adequate information, new statistical data base and analysis, poverty and social exclusion indicators, qualitative and quantitative method of research), exploratory research of excluded people (former state farm employees and their families, dismissed employees of restructured enterprises, persons leaving orphanages and children's homes, former prisoners, people earning a living „outside" the labour market, chronically ill and disabled); institutions and excluded people (schools, local government, social assistance, NGOs, law courts); analysis of social policy and evaluation of social policy regulations and actions (income and transfer policy, labour policy, education policy, family policy, housing policy, policy towards disabled, health policy, policy of social integration). By October 2007 five sets of studies were published in Polish (with English summaries) as follows:

- Kolny B., G. Maciejewski (2006), Zagrożenie ubóstwem i wykluczeniem społecznym w wyniku restrukturyzacji przemysłu węglowego w województwie śląskim – mity i fakty (Threat of Poverty and Social Exclusion as a Consequence of Restructuring the Coal Industry in Śląskie Voivodeship – Myths and Facts), IPiSS, Warszawa.
- Golimowska S., A. Ruzik, J. Gandziarowska, B. Pieliński (2007), Praca lekarstwem na biedę i wykluczenie społeczne. Strategie wobec pracy (Work as a Remedy for Poverty and Exclusion. Strategies Towards Work), IPiSS, Warszawa.
- H. Zaniewska (ed.) (2007), Bieda mieszkaniowa i wykluczenie. Analiza zjawiska i polityki (Housing poverty and exclusion. Analysis of the phenomenon and policy), IPiSS, Warszawa.
- E. Tarkowska (ed.) (2007), Ubóstwo i wykluczenie społeczne młodzieży (Poverty and Social Exclusion Among Children and Young Adults), IPiSS, Warszawa.
- L. Deniszczuk, P. Kurowski, M. Styrc (2007), Progi minimalnej konsumpcji gospodarstw domowych wyznaczane metodą potrzeb podstawowych. Rodzaje, oszacowania i zastosowanie w polityce społecznej (Tresholds of Households' Minimum Consumption. Kinds, Assessments and Application in Social Policy), IPiSS, Warszawa.

Orczyk, J., M. Żukowski (ed.) (2007), *Aktywizująca polityka spo*łeczna (Active Social Policy), AE Poznan

This publication focused on selected problems or specific groups. Two effective ways of counteracting poverty and social exclusion: active social policy and education, were the focus of 2006 conferences and resulted in the books of proceedings. Current one describes results of activating social policy programs in Poland in comparison to other European countries.

Fabis A. (ed.) (2006), *Edukacja dorosłych wobec zjawiska marginalizacji* (Adult Education and Social Exclusion), GWSP Mysłowice

This publication presents specific needs and possible favourable effects of improved education programs for the elderly, the disabled, immigrants, the unemployed, and people living in the countryside.

Ministry of Labour and Social Affairs (2007): Joint Report on Social Protection and Social Inclusion 2007, country profile for Poland, http://ec.europa.eu/employment_social/social_inclusion/docs/2007/joint_report/pl_pl.pdf

It analyses current situation and lists several challenges for the future. Among challenges there is a need to decrease inequalities in education system, to further develop of ALMP policies, to design carefully social transfers to ensure that they do not destroy work incentives for recipients, to develop and to improve institutions tackling with problems of the excluded people, to provide better access to health care and long-term care.

Romania

Cristina Rat (2007), Implementarea măsurilor de protecţie socială bazate pe testarea mijloacelor. Un studiu de caz al judeţului Cluj Raport de cercetare CNCIS TD 382/17, Cluj-Napoca, Presa Universitară Clujeană (34 p.) The Implementation of the Laws on Means-Tested Social Protection Benefits – A Case Study of Cluj County

The study confronts official accounts on the coverage of means-tested social benefits with independent analysis of survey data (2005 Public Opinion Barometers – BOP) and a qualitative investigation of the implementation of the laws on the Minimum Income Guarantee – MIG (Law 416/2001, modified by the Law 115/2006) and means-tested support for needy families with children (OUG 105/2003). It draws attention to the main factors, which hinder the effectiveness of these social security provisions, focusing on rural areas, where poverty rates remained persistently higher throughout the transition period and social transfers had only a modest impact on reducing socio-economic deprivation. At the national level, the coverage of MIG in 2003 was estimated at 7.8% of those below the poverty line (World Bank Poverty Assessment Report, 2003), whereas in 2005 at 6.5% (author's calculations based on 2005 BOP Dataset). It is

argued that the modifications of the regulations on MIG-entitlement (August 2006) reduced even more the coverage of the benefits, and their actual values might eventually allow subsistence in deprivation, but not building capabilities to move out of poverty.

Rat, Cristina (2006) "The Effectiveness of Welfare State Transfers in Reducing Poverty in Romania and Hungary during the first Decade of Post-Socialist Transition", Studia Universitatis Babes-Bolyai, Seria Sociologia, LI (1): pp. 98-111.

The article analyses the poverty-reduction effectiveness of welfare transfers in Romania and Hungary in 2000, ten years after the change of the regime. It contains an overview of the main income-support social benefits and compares pre- and post-transfer poverty rates and poverty gaps in the two countries on the basis of the PEGEE dataset (Poverty, Ethnicity and Gender in Eastern Europe, Centre for Comparative Studies, Yale University, 2000. Project director: Ivan Szelenyi). The Hungarian welfare state could be considered closer to a liberal-residual model, whereas the Romanian maintained a conservative direction, containing also several universal (but under financed) provisions (Deacon,1992). Nevertheless, the analysis of empirical data provided by PEGEE reveals that in 2000 income-support social transfers were more effective in Hungary than in Romania both in terms of absolute and relative poverty reduction, and in alleviating the poverty gap.

Rebeleanu, A, 2007 Politici în domeniul sănătăţii în contextul social al reformei din România [Health policies in the context of the social reform in Romania], 349 pg., Presa Universitară Clujeană, Cluj-Napoca, ISBN: 978-973-610

Chapter five of the book analyses the inequalities in the self-reported health status and the perception of health care system. Higher level of education is associated with better health status. Acknowledging their health as being "bad and very bad" is more frequent for people with income under the average. Data from the Opinion Poll Barometer (2004) show a statistical significant association between the degree of satisfaction with one's own health status and the self-reported income level. Informal payments are frequent for all income groups. Respondents belonging to low-income group regard such payments as legitimate in higher proportion than the affluent respondents. However, the last ones offer "gratitude money" to the doctors far more frequently.

Ministry of Labor, Family, and Equal Opportunities, the National Institute of Statistics, and the World Bank, 2007 "Poverty Monitoring in Romania", Draft Report (not published yet). (Web: http://www.worldbank.org.ro/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/ROMANIAEXTN/0,,menuPK:287321~pagePK:64026187~piPK:141126~sortDesc:DOCDT~theSitePK:275154,00.html)

The following presentation is cited/reproduced from the above WB website:

"The main conclusion of the study is that the period of rapid growth in Romania since 2000 has led to a substantial decline in absolute poverty from 35.9% in 2000 to 13.8% in 2006. Evidence points towards a strong positive correlation between economic growth and poverty reduction in Romania in the last years. In other words, the economic growth in the period 2000 to 2006, at an average of 5 to 6 percent per year, has contributed centrally to the dramatic reduction in absolute poverty. Over the same period, Romania has maintained a moderate level of inequality by international standards. In 2005, Romania's level of income inequality was lower than that of Poland, Estonia, Lithuania, Ireland and the United Kingdom, and comparable to the average level of inequality of EU-25 and EU-15. It has also been brought into discussion the fact that, despite this overall successful picture, pockets of poverty still remain. Rural areas, the Northeast, the Roma, the youth, the less educated, the unemployed and the self-employed face larger incidence of poverty. These will probably require special responsive and flexible programs to facilitate their participation to growth, or to prevent them from falling behind, through adequate social assistance measures" (World Bank Launches Policy Note on Social Assistance in Romania

Slovenia

Čok, Mitja (2007), "Reforms of the Slovenian personal income tax system", Economic and Business Review (to appear).

This article analyses the effects of the 2006 PIT legislation on personal disposable income. Based on a large database of taxpayers, it was shown that the increase in disposable income for taxpayers up to the 10th decile will be in the range 3.4 to 4.9 percent. The increase for taxpayers situated in the 10th decile will be smaller, i.e. 1.6 percent.

Stanovnik Tine, Nataša Kump and Mitja Čok (2006), "The gender dimension of social security reform in Slovenia" (p.93-172), in E. Fultz (editor) *The Gender dimension of social security reform,* ILO, Budapest.

This study examines the gender aspects of the labour market, family benefits and pension benefits in Slovenia. The labour market in Slovenia is characterized by a high activity rate for women and a very low gender wage gap (amounting to only 9 percent in 2002). This is due to the high share of women in the public sector employment, and relatively high wages in this sector. The family benefit and pension reforms during the 1990s are explained, and their consequences on the distribution of household disposable income are presented. In particular, the coverage of child allowances increased substantially in 1993 and further during the period 1996-1999. The 1999 Pension and disability insurance act narrowed the gap between the eligibility conditions for men and women. However, this "equalization" is very gradual.

Slovakia

Statistical Office of the Slovak Republic, 2006: EU-SILC: Survey on income and living conditions of households in Slovak Republic (Štatistický úrad SR, 2006: EU SILC: Zisťovanie o príjmoch a životných podmienkach domácností v SR)

Publication provides basic calculations of EU SILC data and serves as starting point for other analyses.

Ministry of Labour, Social Affairs and Family, 2006: National Report on Strategies for Social Protection and Social Inclusion 2006-2008

Report summarises major policy changes in Slovak republic in the field of social inclusion and their effects. It also offers both objectives and priorities for next period.

Bodnárová, B. – Gerbery, D. – Filadlefiová, J. – Bernhauserová, E., 2006: Living Conditions of Families from Intergenerational Perspective. Final report from the empirical survey. Institute for Labour and Family Research. (Životné podmienky rodín z medzigeneračnej perspektívy. Záverečná správa z empirického výskumu. Inštitút pre výskum práce a rodiny)

Report is the final report from the research project "Intergenerational Survey of living conditions of families". Its goal was to identify preconditions for transmission of poverty from intergenerational perspective. Based upon previous analysis of theoretical and empirical findings the attention was paid to three factors: educational attainment status, labour market status and compositions of families. The pat of the report offers first preliminary insight into indicators of intergenerational poverty transmission, included in EU-SILC 2005.

Bednárik, R., 2006: Analysis of introducing of minimum old-age pension. Institute for Labour and Family Research. (Bednárik, R.: Analýza zavedenia minimálneho dôchodku. Inštitút pre výskum práce a rodiny)

The study examines impacts of potential introducing of minimum pension institute in Slovak republic. It contains analysis of socio-economic situation of receivers of low pensions based on actual data from Social Insurance Agency and Statistical Office.

Finland

To the national expert's knowledge, there are no recent academic studies analysing the reform of the two last years. However, it may be interesting to quote the following study on poverty trend in Finland:

Riihela M., R. Sullstrom and M. Tuomala (2007): 'Economic poverty in Finland 1974-2004', VATT discussion paper 418

Mattila-Viro, P. (2006): 'Change in the distribution of economic well-being in Finland' VATT research report 128.

Sweden

PROP. 2007 Bilaga 3 Fördelningspolitisk redogörelse. The Ministry of Finance: 2007. (Budget supplement on income distribution.)

PROP. 2007/2008. The Ministry of Finance: 2007. (Budget for 2008)

PROP. 2007/2008 Bilaga 3 Fördelningspolitisk redogörelse. The Ministry of Finance: 2007. (Budget supplement on income distribution.)

The government finds that income inequalities have increased over the past 15 years as a consequence of changes in the tails of the distribution, both that those with lowest incomes are lagging behind and that top income earners are getting ahead. The latter is an international trend. Income inequality is still lowest among the EU countries by 2005.

The government policies are primarily aimed at increasing the work incentives of low income people, primarily by increasing the earned income tax allowance. Here the importance of decreases in the unemployment benefits and the sickness cash benefits should also be taken into account.

The government calculates that the benefit dependency among those in working ages will decrease from 1,1 million to 890 000 by 2010, and that this will have benefiscial effects on the incomes of the bottom decile(s).

Two of the proposed changes are likely to affect high income households in particular. One regards the abolishment of the wealth tax and the other regards the transformation of the property tax into a flat property fee.

Statistics Sweden (SCB): Inkomstfördelning 2005 (Income distribution in 2005) He 21 Sm 0701.

Statistics Sweden (SCB): Inkomstfördelning 2006 (Income distribution in 2006) Preliminsry edition issued in October 2007.

Statistics Sweden provides an overall picture of the development of income inequalities that is consistent with what the Government is showing (despite the fact that there are some differences when it comes to measurement): Inequalities are continuing to increase; to a large extent due the increased importance of income from capital and capital gains but there is a clear increase over the most recent years even if these incomes are excluded. This is further documented by the preliminary statistics that just have been released for 2006.

Socialvetenskaplig Tidskrift Vol 14, Nos. 2-3. 'Välfärdens ansikte mot 2000-talet. (Thematic issue on welfare development over the first years of the 21st century.)

Included an update of some of the core issues of the work of the Swedish Welfare Commission which analysed the welfare developments of the 1990s. One interesting finding is that the outflow from long-term social assistance benefit-recipiency continues to be lower than before the crisis of the 1990s. Nevertheless we improved some improvement in the attachment to the labour market as well as income-levels, of the three groups that were identified as the 'losers' during the 1990s; immigrants, single-mothers and youth. But the improvement is not for all in these groups.

UK

Brewer M., A. Goodman, A. Muriel and L. Sibieta, (2007) *Poverty and Inequality in Britain: 2007*, IFS Briefing Note BN73. http://www.ifs.org.uk/publications.php?publication_id=3932

Department for Work and Pensions (DWP), 2007, *Households Below Average Income 1995/95 – 2005/06*, DWP

Hirsch D., 2006, *What would it take to end child poverty? Firing on all cylinders*, York: Joseph Rowntree Foundation. http://www.jrf.org.uk/bookshop/eBooks/9781859355008.pdf

Buck N., H. Sutherland and F. Zantomio, 2007, "Tackling child poverty in London: Implications of demographic and economic change" London Child Poverty Commission http://213.86.122.139/publications/iser-rpt-0207.jsp

Main points

Between 2005/6 and the year previously (ie the latest release of HBAI statistics) household income growth has been low (the median rose by 1.1% in real terms) but lower for the bottom quintile (0.5%) than the top quintile (1.7%).[The differences between these estimates are not strictly statistically significant.]

On most measures, income inequality rose such that it is significantly higher than the inequality the Labour government inherited, although most of the effect came from the tails of the distribution.

Without the tax and benefits changes (since 1997), which have favoured low income households, the increase in inequality would have been much higher.

The number of people in relative poverty rose on both measures used in the UK (BHC and AHC). This is the first rise since 1997/8.

Relative poverty rose for most groups but particularly for working age adults without dependent children. This is a group that have not benefited from tax-benefit reforms and their rate of poverty is now (in 2005/6) higher than any time since 1961 when records began.

The government's next child poverty target is to halve the 1998-9 level by 2011-11. This would require a reduction of 200,000 children in poverty every year, compared with the average reduction of 100,000 per year over the past 7 years.

Spending around £4bn a year on increasing the child tax credit per-child amount is calculated to be just sufficient to meet the target, other things being equal.