DETAILED TABLES

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Income, poverty and social exclusion: 2nd report

Data 1994-1997

3

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PREAMBLE

This report is the second[1] in a series of periodic publications on income poverty and social exclusion in the European Union. It provides information about these phenomena in each member state and at an aggregate level, using the most recent information available from the European Community Household Panel survey[2]. The report presents cross-sectional information at annual intervals during the first waves of this pioneering social survey, exploring the association between monetary and non-monetary aspects of poverty and social exclusion, and develops longitudinal and dynamic analyses.

Background

The profile of statistics on income, poverty and social exclusion has increased significantly in recent years, as this subject has risen up the political agenda. This began with the introduction of the social chapter into the Amsterdam Treaty (see articles 136 and 137). It was followed by the European Council of Lisbon (March 2000), which placed social policy at the centre of the European Union strategy to become "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with better jobs and greater social cohesion" and acknowledged that "the number of people living below the poverty line and in social exclusion in the Union is unacceptable". A Social Policy Agenda has been developed, "to prevent and eradicate poverty and exclusion and promote the integration and participation of all into economic and social life".

This was reflected at Nice in December 2000, where common objectives were adopted in the fight against social exclusion and poverty: "to facilitate participation in employment and access by all to the resources, rights, goods and services; to prevent the risks of exclusion; to help the most vulnerable; to mobilise all relevant bodies". In June 2001 the first National Action Plans on Social Inclusion were adopted, setting out targets and strategies to achieve them at national level, complemented by a Joint Report on Social Inclusion.

In November 2001 a 75m euro Community Action Programme was approved to support projects which combat poverty and social exclusion. Actions under the structural and cohesion funds (which together account for around 35% of the total EU budget in the period 1994-1999) continue to seek to reduce the development gap between regions and thereby promote economic and social cohesion.

At Nice, a first list of 'Structural Indicators' was agreed, including 7 in the field of social cohesion, for which data was presented in the Commission Synthesis Report at the Stockholm European Council in March 2001 (and again at Barcelona in March 2002). Throughout 2001, the indicators sub-group of the Council Social Protection Committee worked to develop a comprehensive list of social cohesion indicators. A first set of 10 primary and 8 secondary indicators was adopted at the Laeken European Council (December 2001), which set a framework for monitoring progress towards the Nice obectives. The work of the sub-group is ongoing to refine and extend this list.

The current report represents an important contribution to this work, extending the analysis of monetary poverty into a dynamic framework, and examining the interaction with non-monetary aspects of deprivation and social exclusion.

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(1) See Eurostat (2000) 'European Social Statistics: Income, poverty and social exclusion', *Detailed Tables*, Luxembourg

(2) The ECHP is an input-harmonised longitudinal panel survey using a common set of definitions and directed to a representative sample of private households in each EU member state, designed to obtain information on income and related social issues by means of personal interviews, which was launched in 1994. For further methodological information, please see Appendix 2.

(Chapter 8), Michael Förster and Géza Tarcali (Chapter 9); Matthias Till and Gianni Betti (technical data team) in collaboration with the following institutions: ORC Macro; the Interdisciplinary Centre for Comparative Research in the Social Sciences (ICCR); the Economic and Social Research Institute (ESRI); the European Centre for Social Welfare Policy and Research; and the University of Sienna. Translation of the original document into French and German has been done by the Commission Translation Service.

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Data alert

The underlying data for 1994-97 used in preparing the current publication is taken from the wave 5 ECHP user database, version December 2001. The ECHP is a co-operative exercise between Eurostat and member states. The ECHP user database is produced after a long validation process including controls at both national and international level. After such validation, the database is authorised for use in the calculation of statistics such as those presented in this report.

Exceptionally, after it's release in December 2001, it became apparent that two quality issues remained unresolved in the user database. Firstly, two national data units (UK and Belgium) identified serious problems in the quality of the data they supplied. Secondly, the approved procedures to impute for item non-reponse and to establish weights have given rise to certain extreme values, and it was subsequently agreed to adopt a revised calculation method. After considerable efforts at national level and by Eurostat, both these problems were resolved in time for the release of the wave 6 database in December 2002. Results derived from the new database cannot be considered to be comparable with results based on the old database. Large changes are known to exist in certain indicators established using the different databases. For example, risk-of-poverty rates for UK pensioners are known to be overstated by comparison to wave 6. Unfortunately, it has not been possible to replicate the extensive detailed calculations and associated analysis in the current text using the wave 6 database instead.

Individual results presented in the current publication should therefore be treated as provisional and interpreted with some caution. However, the authors of this report consider that the substance of their research is unlikely to be seriously affected by the problems identified.

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1. Executive Summary

Income distribution and risk of income poverty – the cross-sectional perspective

[1.01] In 1997 the average income level[3] in the European Union amounted to 11.500 PPS (that is the value of goods that could have been purchased by each national currency when the units of each national currency are converted into a cross-European purchasing unit). Average income ranged from 6.500 PPS in Portugal to 19.000 PPS in Luxembourg. In comparative perspective, Portugal, as well as Greece and Spain are the least prosperous of the European Member States with an average income level equal to or below 8.000 PPS. The United Kingdom, Austria, Germany, Belgium and Denmark have average income levels above the country average, between 13.000 and 14.000 PPS.

[1.02] The median income level in EU-Member States was approximately 10 percent higher in 1997 than in 1994; this corresponds to an average increase of 2.5 percent per year. The increase was more marked in Denmark, Ireland, Portugal and the United Kingdom. Income in Ireland rose at the fastest rate – 6.5 percent per year.

[1.03] Improvements in the overall standard of living (as measured by an increase in the level of nominal income) do not necessarily imply that people in all countries benefited equally. Between 1994 and 1997, the proportion of persons with lower incomes decreased to the same extent that the proportion of persons with higher incomes increased in Denmark, yet in Ireland, almost the opposite occurred. In the United Kingdom – another country experiencing a high degree of economic growth during this period – we observe an increase of low and high income positions paralleled by a decrease in the numbers at middle and extremely high income positions.

[1.04] In 1997 the economic distance between the richest and poorest in a society was 4 : 1 in the average of EU-Member States. In Portugal and Greece this ratio is highest and close to 6 : 1. This means that a Portuguese or Greek person living in a rich household has on average six times more income at his or her disposal than a Portuguese or Greek person who lives in a poor household. Similar levels of inequality to those of Portugal and Greece also can be observed in Spain and the United Kingdom. On the other hand, Luxembourg as well as all Nordic countries have a far less unequal income distribution: the economic distance between the richest and poorest being 3 : 1 (in Luxembourg) or lower (in Finland, Sweden and Denmark).

[1.05] In the same year the lowest quintile group in the European Union was in possession of only eight percent of the total income resources. In contrast, the highest income quintile held 38 percent of all income resources. The income concentration ratio was thus just below 5 : 1, being lowest in Denmark (3 : 1), Finland (3.2 : 1) and Sweden (3.3 : 1), and highest in Portugal (7.3 : 1), followed by Greece (6.7 : 1), Spain (6.5 : 1) and the United Kingdom (5.8 : 1).

[1.06] In the late nineties more than sixty million EU citizens had an income which was below the national at-risk-of poverty thresholds. This number corresponded to 17 percent of the total population. The at-risk-of-poverty rates in the individual Member States range from 24 percent in Portugal to eight percent in Denmark and Finland. Poverty risks above the EU-average are generally observed in the Southern European and Anglo-Saxon countries i.e. Portugal, Greece, Spain, Italy, United Kingdom, Ireland, and, to a lesser extent, France which is closest to the EU average. The extent of poverty risk was lower in Continental and Scandinavian Member States, with Belgium and Germany showing the smallest divergence from the EU average.

[1.07] The net income required to eliminate the risk of poverty in all 15 EU Member States with reference to the year 1997 amounts to a total of 87.5 billion PPS, which corresponds to an overall median at-risk-of-poverty gap of 22 percent. Most countries have an at-risk-of poverty gap between 20 and 24 percent, with the Netherlands, France, Austria and Sweden being below the EU average and Portugal above it. In Belgium, the United Kingdom, Spain and Italy the gap exceeds 26 percent and is highest in Greece where it amounts to 33 percent.

[1.08] The at-risk-of poverty gap tends to be greater in countries which display above average at-risk-of poverty rates. This pattern does however not hold for all countries. Ireland, which was found to have one of the highest

(3) References to income in this document refer to equivalised income: see glossary (appendix 1) and methodological notes (appendix 2)

at-risk-of poverty rates in Europe (20 percent at the 60 percent threshold), has, after Finland, the second lowest at-risk-of poverty gap of the EU Member States (19 percent). This suggests that, in terms of income resources, those at risk of poverty in Ireland are concentrated just below the income threshold.

[1.09] The extent and severity of poverty risk are two crucial concerns of social policy but equally important is the level of inequality among those at risk of poverty. Income inequality is considerably lower among those at risk than it is in the overall population. For 1997, the average Gini coefficient for persons with low incomes in EU Member States was 18 as compared to 30 for the whole population. In Italy and Spain, the Gini coefficient of income concentration was higher than 24, whereas the lowest inequality among those at-risk-of poverty was found in Ireland and Denmark, where the Gini was below 12. Low income inequality in the remaining countries was between that of Finland and Greece which had a Gini-coefficient of 14 and 20 respectively.

[1.10] In summary, Denmark as well as the Luxembourg and Austria are characterized by high prosperity, low inequality and low risk of poverty. This holds also for the Netherlands and Nordic countries where prosperity is somewhat lower. In contrast, all four Southern European countries show a pattern of low prosperity, high inequality and substantial risk of poverty. A lower level of prosperity in Ireland is likewise paralleled by an increased risk of poverty, however inequality is less severe. Germany and France are near the (unweighted) EU-average on most dimensions, yet given the size of these countries, it is likely that these aggregate measures hide considerable regional disparities. High levels of inequality and risk of poverty in the United Kingdom co-exist with a median income level which is well above the EU average. Belgium proves to be another exceptional case; here we can observe an overall high standard of living, yet at the same time comparatively high inequality and an average risk of poverty.

[1.11] The examination of the social patterns of inequalities within countries revealed that women are most affected by economic disadvantage and the risk of poverty, most strikingly so at specific stages of the life cycle. Young persons and children are generally disadvantaged compared to persons of working age. Incomes are lower at retirement age and the risk of poverty is hence higher, especially among older women living alone. Low educational attainment, less favourable employment positions and the experience of unemployment all function as major pathways into poverty. Having three or more dependent children is likewise associated with a higher than average risk of poverty. Single parent households with only one child (as well as those with more children) experience a similar situation. Young single adults, the long-term unemployed and persons in households in which none of the persons of working age works face the most serious situation.

Risk of poverty dynamics – the longitudinal perspective

[1.12] Across the EU and in all EU Member States the cross-sectional at-risk-of poverty rate is significantly lower than the proportion experiencing a year at-risk-of poverty between 1994 and 1997. In other words, the proportion of people who experienced a year at-risk-of poverty over the four years is higher than the proportion experiencing a risk of poverty in any one year. The higher proportions experiencing poverty risk using the longitudinal rate shows that the risk of poverty affects a larger proportion of the population than the cross-sectional measure would suggest.

[1.13] The majority of people avoided the risk of poverty completely during the period 1994-1997. The numbers ‘trapped’ in persistent risk of poverty over all four years range from just under 1 in 25 in Denmark to around 1 in 8 in Portugal. In addition to Portugal, Greece and Ireland also have high rates of persistent poverty risk, with eight percent.

[1.14] Even if only a minority of persons experience a persistent risk of poverty, it must be underlined that there are far higher proportions having this experience than we would expect if the experience of poverty risk in any one year were independent of that in any other. This suggests that there is some ‘inertia’ to the experience of poverty that tends to lead to multiple, rather than single years in poverty.

[1.15] Across countries, the higher the level of poverty risk in a country, the less it is likely to be ‘shared’ among different individuals. The any-time to cross-sectional ratio is, for instance, 1.55 in Portugal (with mean cross-sectional at-risk-of poverty rate of 23 percent), and 2.14 in Denmark (with mean at-risk-of poverty rate of 10 percent). Similarly, the higher the level of poverty risk in a country, the more it is likely to persist among the same individuals. The persistent to cross-sectional ratios for Portugal and Denmark, for instance, are 0.82 and 0.56 respectively.

[1.16] In most countries the probability of exit from the state of poverty risk falls over time, though the tendency varies both by the at-risk-of poverty line chosen and by country. Using the 70 percent income line, Portugal has low exit rates, even at one year, followed by Ireland and the UK. The use of the 60 percent median income line shows similar, but more pronounced, patterns. Portugal displays again the lowest exit rates, yet the UK and France show steep falls after the first year to register almost equally low exit rates at three years. The extent of decrease in the exit rate over time suggests a regular and structured process which decreases the ability of individuals and households to emerge from the state of poverty risk. This process is more apparent in some countries than in others.

[1.17] Rates of re-entry into the state of poverty risk differ widely with a fall of two-thirds in the Netherlands after the second year compared to just below 15 percent in the UK. No distinct country pattern emerges from these results. Similar results are observed with the 70 percent median line, except here the probability of re-entry is higher, not a surprising finding given that the at-risk-of poverty line is higher and thus easier to fall below. The extent of decrease in the rate is similar, with decreases running from 66 percent in Denmark to seven percent in France.

[1.18] Both the factors that increase the level of needs in the household and those that limit the availability of resources increase the persistent risk of poverty. Low educational level and working in manual occupations tend to increase the persistent risk of poverty, though the risk associated with the latter varies between countries. Denmark, Belgium, the Netherlands and Germany have low differentials; the UK, France and Ireland have a moderate risk; and the Southern European countries generally have the highest risk. This pattern is not as distinct for the household type variables, though it is still generally true that being a single parent, being older or having more children is associated with a higher persistent risk of poverty when compared to non-elderly couples with two or fewer children.

[1.19] Movements into the state of at-risk-of poverty or increases in poverty risk tend to be preceded by decreases in income rather than increases in the level of need in a household. A drop in earned income (either in the form of salaries and wages or self-employment income) is most likely to result in a spell of poverty risk. Earned income can fall for a number of reasons, but movements from employment into unemployment or inactivity are central. A transition from employment into unemployment leads to almost 3.3 times the risk of entering poverty and decreases the odds of exiting by over 40 percent. Similarly, a transition into inactivity leads to 1.7 times the risk of poverty and a 20 percent decrease in exit probability.

[1.20] In the absence of other sources of income, transitions into unemployment or inactivity lead to reliance on social transfers in the form of welfare payments. Given that such payments tend to be lower than work income, this often increases the risk of poverty. Being dependent on social welfare increases the odds of entering and decreases the odds of leaving poverty. Most interestingly, the odds of entering a state of poverty risk increases massively to 7.6 when the household moves into dependence on social welfare. On the other hand, this transition decreases the probability of no longer being at risk of poverty by 50 percent. If a household leaves dependence, their previous exposure to social welfare or low income means that they still have 2.4 times the odds of those never dependent, though the odds of leaving the state of poverty risk increase by 160 percent.

[1.21] The addition of one adult or one child in a household increases the probability of becoming poor, though the effect of household size is less important in absolute terms than changing income. An extra adult increases the odds of poverty risk by 12 percent while an extra child leads to an increase of nine percent. However, the addition of another adult does not seem to decrease the odds of poverty risk whereas the addition of a child has a significant negative effect, lowering the odds of transition.

Non-monetary or lifestyle deprivation

[1.22] Five dimensions of non-monetary or lifestyle deprivation were identified using the ECHP indicators.

- Basic lifestyle deprivation comprises items such as food and clothing, a holiday at least once a year, replacing worn-out furniture, and the experience of arrears for scheduled payments.
- Secondary lifestyle deprivation comprises items that are less likely to be considered essential, such as a car, a phone, a colour television, a video, a microwave, and a dishwasher.

- Housing facilities covers housing services such the availability of a bath or shower, an indoor flushing toilet and running water, facilities likely to be seen as essential.
- Housing deterioration taps on the existence of problems such as a leaking roof, dampness and rot in window frames and floors.
- Environmental problems covers problems relating to noise, pollution, vandalism and inadequate space and light.

[1.23] The overall index of non-monetary or lifestyle deprivation constructed as a weighted average of lack of individual items shows a clear association with level of income and with the risk of income poverty. Lifestyle deprivation increases with increasing levels of income poverty risk and declines with the increasing levels of income. In so far as less well-off countries in the EU also tend to be subject to greater inequality of income, the non-monetary deprivation index shows a greater range of variation among the Member States, with particularly large values for Portugal and Greece.

[1.24] Looking at the five dimensions of lifestyle deprivation separately, we observe very high levels of basic lifestyle deprivation in Greece, housing deterioration in Portugal, and the lack of basic housing facilities in both these countries. By contrast, very low deprivation in relation to basic housing facilities is reported in the Netherlands and the United Kingdom.

[1.25] The social profiles of deprivation emerging from the analysis of non-monetary aspects are similar to those from the analysis of the risk of income poverty. Overall the major difference is that social differentials in terms of non-monetary indicators are generally less marked, often significantly so. For instance, the situation of single-parent households remains disadvantaged, but to a somewhat lower degree in terms of non-monetary indicators than in terms of income poverty risk. At the other end, the situation of large households (e.g. households with many children) is less unfavourable in terms of non-monetary indicators than in terms of income poverty risk. Non-monetary differentials by the highest level of education in the household remain, but again are notably reduced compared to income differentials. Similarly, differentials by social class are reduced, except for the somewhat increased relative disadvantage of manual workers.

[1.26] Averaged over countries, the cross-sectional non-monetary deprivation rate is around 17 percent. The any-time rate is higher by a factor of around 1.5 over a three year period, meaning that 50 percent or so more persons are in the state of deprivation at some time during three years, compared to the cross-sectional rate at any one time (year). Around 60 percent of the persons in the state of deprivation at any one time are persistently in this state over the whole of the three year period. Non-monetary or lifestyle deprivation tends to be even more 'sticky', i.e. to affect the same individuals over time, than income poverty risk. The difference between non-monetary and income indicators in this respect is around 15 percent.

[1.27] The higher the level of non-monetary deprivation in a country, the less it is likely to be 'shared' among different individuals. The any-time to cross-sectional ratio is, for instance, 1.3 in Portugal (with an overall deprivation rate of 34 percent), and 1.5 in Denmark (with a deprivation rate of 11 percent). Similarly, the higher the level of non-monetary deprivation in a country, the more it is likely to persist among the same individuals. The persistent to cross-sectional ratios for Portugal and Denmark, or instance, are 0.7 and 0.5 respectively. These results are consistent with those observed for persistent income poverty.

Risk of income poverty and lifestyle deprivation

[1.28] Persons living in households which are found below the at-risk-of poverty threshold are more likely to face deprivation in various forms, for instance with regard to the ability to take a holiday, replace worn out furniture, replacing old clothing items, hosting guests or heating their homes. This situation is particularly severe in Southern European countries, particularly Portugal and Greece. Particularly high proportions of Irish and Greek households experience debt.

[1.29] Levels of deprivation are significantly lower on items on the secondary dimension concerning the possession of durable goods. This is likely to reflect the greater role taste plays in relation to such factors and the fact that such items may have been acquired quite some time ago and are consequently less influenced by short-term changes in income fortune. The highest levels of deprivation are observed on the items referring to a car and a dishwasher. The highest value for the former is observed in Portugal, where it comes closest to one

in two. The figure for the Belgium, Germany, Spain, Ireland and Greece is found in the range running from 20 to 30 percent. In all other cases, the figure is less than 20 percent with the Italian figure being exceptionally low at six percent.

[1.30] With regard to the items relating to housing deterioration, we find sharp cross-country variations in the extent to which persons living in households at risk of income poverty are characterized by deprivation in relation these items. There is a group of six countries with extremely low values on all three items: Denmark, Germany, Luxembourg, Austria, Finland and Italy. By contrast, large numbers of persons in households facing a risk of income poverty in Portugal, followed more distantly by their counterparts in Greece and Spain, experience all housing deterioration problems.

[1.31] The vast majority of respondents at risk of income poverty do not report problems with housing facilities. Portugal, with high numbers of houses without basic facilities, and Greece, where many households lack hot water, are significant exceptions.

[1.32] The deprivation levels relating to high levels of pollution and low levels of light are substantially lower. For the former the highest level is one in four in Italy and for the latter one in three in Portugal. The item relating to crime and vandalism is of particular interest, as widespread stereotypes suggest that the poor are concentrated in urban ghettos plagued by such problems. The highest level of 28 percent is reported for France. Seven countries are found in the narrow range running from 21 to 26 percent. Finally countries such as Denmark, Luxembourg, Austria and Greece report levels falling below 10 percent. A very substantial majority of respondents at risk of income poverty do not report problems relating to crime or vandalism.

[1.33] There is a clear and striking relationship between degree of exposure to income poverty risk over time and exposure to basic deprivation. Belgium provides a good example of the generally monotonic relationship. Among those who entirely avoid the risk of income poverty only six percent lack three or more of the items used as indicators for basic deprivation. This percentage rises to 11 percent for those at risk of income poverty on one occasion to 22 percent for those at risk of poverty on two occasions before peaking at 48 percent for those at risk of poverty in at least three out of four years. Among the three poorest Southern European countries the numbers lacking three or more items among those at risk of income poverty exceeds two-thirds in all cases, ranging from 73 percent in Spain to 91 percent in Greece.

[1.34] In every country, the level of secondary deprivation rises with exposure to the risk of income poverty and displays its highest value among those facing a persistent risk of income poverty. The highest levels of deprivation in this category are observed in Portugal, Spain and Greece where the respective percentages are 56, 39 and 25 percent. Ireland, Belgium and Germany are found in the range around 30 percent. The figure for Italy, Austria and France is somewhat lower at around 10 percent. Finally, there is a group of countries that display extremely low levels of secondary deprivation, with the rate never exceeding six percent. These comprise Denmark, the Netherlands and the UK.

[1.35] Equally strong is the relationship between increasing exposure to the risk of income poverty and experiencing economic strain, which is defined as being in a household that is having a great or a good deal of difficulty in making ends meet. France provides a very good example. Economic strain is at its lowest among those who have entirely avoided the risk of income poverty with a reported rate of 11 percent. This figure rises to 28 percent for those at risk of poverty on one occasion and to 34 percent for those at risk of poverty on two occasions. Finally it peaks at 41 percent for those in a state of persistent risk of poverty, i.e. on at least three out of four occasions.

[1.36] Multiple deprivation, which is defined as lacking an item on at least two or three dimensions, has a significant association with the risk of income poverty. However this association is weaker than that observed with reference to any single dimension of deprivation and, in particular, the basic and secondary dimensions. In other words, the majority of those at risk of income poverty are not multiply deprived, and, correspondingly, the majority of the multiply deprived do not face the risk of income poverty.

[1.37] The experience of multiple disadvantage increases the greater the degree of exposure to the risk of income poverty over time. Ireland provides a good example. For those who succeed entirely in avoiding the risk of income poverty, the rate of experiencing multiple disadvantage is 11 percent. This figure rises to 28 percent for those who were at risk of income poverty on one occasion and to 31 percent for those at risk of poverty on

two occasions. Finally, for those who were in a state of poverty risk during at least three out four years, it peaks at 43 percent. Belgium follows a very similar trajectory, with the figure going from eight to 13 to 23 percent and finally to 46 percent. Overall, a majority of those facing a persistent risk of income poverty are multiply deprived in only four countries – Ireland (51 percent), Spain (65 percent), Portugal (75 percent) and Greece (78 percent). Five of the remaining countries, the Netherlands, Belgium, Italy, the UK and France, are found in the range running from 40 to 49 percent. The remaining countries, where even those facing a persistent risk of income poverty experience relatively low risks of multiple disadvantage, are Austria, Germany, Luxembourg and Denmark which are found in the range running from 32 to 15 percent.

[1.38] Work and labour market related variables have a substantial influence on risk of exposure to persistent deprivation. Thus, in all but one case, more than one third of persons living in households headed by the longterm unemployed are persistently deprived. In two countries this is true of a minimum of approximately one in two, in Greece it is true for two out of three. Family characteristics also figure in the profile of persistent deprivation, albeit not as prominently.

[1.39] Persistent risk of income poverty and persistent deprivation do not interact in a fashion that is cumulative. Thus, the rates of economic strain are not necessarily the same or higher for those who are both persistently deprived and persistently at risk of income poverty as for those who are only persistently at risk of income poverty. Indeed, persistent deprivation has an extremely strong impact on those who are not persistently at risk of income poverty.

The role of social transfers

[1.40] On average, transfers make up one third of the personal disposable income, complementing resources from the market, mainly earnings. The share of transfers is lower in the Southern European countries, especially Greece, and higher in the Nordic countries, especially Finland[4], and in Belgium.

[1.41] Pensions tend to be biased to richer incomes across all 15 EU Member States. Their share exceeds the 20 percent population share of the richest quintile in all countries, mostly in Portugal (43 percent) and the least in Denmark (24 percent). In a number of countries, namely Denmark, Germany, Italy, Luxembourg and Sweden, pensions also appear to be somewhat biased to the middle incomes. The only country where the poorest 20 percent receive more than 14 percent of all pensions is Denmark. Pensions are therefore largely regressively distributed, following in that the unequal distribution of (past) earnings.

[1.42] Non-pension transfers, in contrast, are largely progressively distributed, i.e. targeted to lower incomes. On EU-average, 29 percent of all non-pension transfers go to the poorest quintile, 57 percent to the middle incomes, and 14 percent to the top quintile. In other words, they have a re-distributive impact on the otherwise very unequal distribution of earnings and other sources of income. Four groups of countries can be distinguished: (a) Denmark, Finland and Ireland show the most targeted features of non-pension transfers, greatly exceeding the EU average. (b) Austria and Spain display almost 'proportional' patterns of non-pension transfers, suggesting an even contribution. (c) In Portugal and Italy non-pension transfers are slightly biased to richer income groups. (d) The remaining eight countries follow very closely the above described slightly targeted EU average.

[1.43] Both unemployment and family benefits are distributed similarly to non-pension transfers in general, i.e. they are slightly targeted to lower income segments. Education allowances likewise show a bottom-targeted feature, which is even stronger than that of either unemployment or family benefits. Sickness and invalidity benefits are not targeted to lower incomes but are rather spread evenly across the income distribution of the working-age population. Finally, housing allowances and social assistance benefits have, as expected, the strongest targeting features: some two thirds of social assistance go to the poorest 20 percent of the workingage population.

[1.44] Non-pension transfers almost halve the number of those at risk of income poverty and reduce the distance to the at-risk-of poverty line (the intensity) by approximately 40 percent among the working-age

(4) See however ECHP methodological note in Appendix 2.

population. Depending on the relative importance of universal or means-tested benefits, it is possible to distinguish four groups of countries: (a) In seven countries, the combined action of the various non-pension transfers reduce both the numbers and intensity of poverty risk to a fairly high degree: this is the case in Belgium, Germany, France, the Netherlands, Finland[5], the United Kingdom and, to a lesser extent, Spain. (b) In a second group of countries, namely, Denmark, Sweden, Luxembourg and Austria, non-pension transfers reduce primarily the number of those at risk of poverty, but close the at-risk-of poverty gap to a much lesser degree. (c) Non-pension transfers have a higher impact on the at-risk-of poverty gap than the at-risk-of poverty rate only in Ireland. (d) In the remaining three countries – Greece, Italy and Portugal – non-pension transfers have only a limited impact on poverty risk. Reduction rates are between just 6 and 24 percent.

[1.45] In the absence of social transfers, the percentage of persons experiencing poverty risk at a particular time would increase by about 20 percentage points, from currently 30 to 50 percent on EU average. The effect would be mostly felt by persons experiencing long stays in a state of poverty risk (three or four years): instead of 13 percent there would be over one third being at-risk-of poverty three or more years. Social transfers can thus be said to reduce the average length of poverty risk in Europe from 3 to 2.2 years. It appears that the reduction of long-term poverty risk is particularly strong in Denmark, Luxembourg, the Netherlands and Austria, but weaker in Greece and Portugal.

(5) ditto

2. Introduction

This is a report on statistics on the risk of income poverty and social exclusion in the European Union based on the analysis of the data of the European Community Household Panel (ECHP) from 1993 to 1997.

The European Community Household Panel represents one of the few sources of micro-data on income, social conditions and lifestyle in Europe today and probably the only one which is comparable across Member States. This renders it an important database despite certain conceptual and methodological shortcomings, which are probably unavoidable in any major comparative undertaking. Furthermore, the richness of the ECHP is best appreciated over time, i.e. from a longitudinal perspective, and for allowing the exploration of dynamics, be it from the temporal perspective or across dimensions or causal pathways.

Accordingly, besides documenting the situation regarding the risk of income poverty in the late nineties and the role of the welfare state in this connection, this report has two other important objectives:

- First, to analyze the dynamics of the risk of income poverty by taking advantage of the availability – for the first time – of longitudinal data from the ECHP covering a substantial range of years and population share.
- Second, to explore the association between monetary and non-monetary or lifestyle deprivation in and over time in an attempt to throw light on the difficult notion of social exclusion.

The report has been authored by several authors following common conceptual and methodological guidelines, and using the same database and set of (constructed) variables. It is structured as follows:

The chapter that follows (Chapter 3) outlines the conceptual and methodological framework of the study. It describes how we understand the related, albeit distinct, notions of income poverty risk and social exclusion and how we have operationalized these in statistical work, seeking to maximize on the advantages of the ECHP whilst remaining aware of the latter's shortcomings. The methods employed in the various chapters with regard to income analysis are introduced and discussed. A more detailed elaboration of some of these, including, where relevant, the statistical / mathematical theory that underpins them, can be found in the methodological annex (Annex 2). A brief description of statistical terms and notions can be read in the Glossary (Annex 1).

Chapter 4 reports on the cross-sectional results of the analysis and specifically those for 1997. Besides reporting on income levels[6] and how these have changed since 1994, when the ECHP was first launched, it depicts various measures of income distribution (distance and concentration) prior to moving on to discuss risk of poverty and the socio-economic profile of those with low incomes or at-risk-of poverty.

Chapter 5 explores how the longitudinal ECHP database can be used to reveal the dynamics of income poverty risk. It inquires into the persistence of poverty risk and whether those at risk of poverty for a long(er) time are different from the socio-economic perspective than those facing a temporary or short-term risk. Furthermore, it identifies those factors that explain exit from and entry into the state of income poverty risk and, in this connection, the role of other transitions, like from employment to unemployment or from married to divorced status, in the risk of moving into or out of income poverty.

The ECHP includes a series of non-monetary deprivation indicators. The assessment of these and whether and how they can be used to construct distinct dimensions and/or an overall index of non-monetary deprivation are explored in Chapter 6. This chapter additionally inquires into the socio-economic profile of those facing non-monetary deprivation and how this differs – if at all – from the profile of those at risk of income poverty.

Building on this, Chapter 7 probes the relation between monetary and non-monetary or lifestyle deprivation, both at the cross-sectional and longitudinal level. To what extent is the ownership and/or affordability of basic goods and/or secondary durables dependent on income? How are social relations, satisfaction or health influenced by income? What share of the (persistently) at risk of poverty face concurrently multiple non-monetary deprivation?

([6]) References to income in this document refer to equivalised income: see glossary (appendix 1) and methodological notes (appendix 2)

Chapter 8 provides a preliminary answer to the question regarding the efficiency of welfare regimes across Europe, more specifically that of the pension and non-pension transfer systems. Do such transfers contribute to the amelioration of the income and social situation of European citizens and more specifically those facing a persistent risk of poverty? The answer to this question is preliminary, given that only net income transfers are considered (in relation to personal disposable income), yet already at this level, the ECHP data provides insights that are important when considering welfare reforms and the prioritization of social policy measures.

The statistical analytical part of this report is completed with Chapter 8. Chapter 9 recaps the most important findings from the previous chapters separately for each EU Member State considered by the analysis. Chapter 10 summarizes the main findings and draws policy and research recommendations.

3. Conceptual and Methodological Framework

3.1. Conceptual framework

3.1.1. Income poverty and/or social exclusion?

Contemporary discussions of poverty and social exclusion often go astray in trying to draw a clear distinction between the risk of income poverty, on the one hand, and social exclusion, on the other. The latter term has gained conceptual significance in the last years following its emergence in the policy discourse.

Much of this discussion is overrated and indeed confounding rather than enlightening, deriving from a narrow misrepresentation rather than fair assessment of poverty research and what it has achieved over the years.

Poverty research is often – wrongly – associated with that line of argumentation which identifies poverty with shortage of income. In fact poverty research is much more diversified and indeed only the minority of poverty researchers would consider the study of poverty as comprising the study of income alone. For most poverty researchers, "impoverished lives and not just (...) depleted wallets"[7] are the subject of study. Income is an important – perhaps the most important – resource but it is not the only one. Along the same lines, low income is an important but not the sole outcome of lack of resources or discriminatory processes. Against this background much of the treatment of social exclusion overstates both the novelty of emphasizing cumulative disadvantage and the limitations of traditional poverty research.[8]

The real novelty of the idea of social exclusion, argues Sen, lies in its emphasis of "the role of relational features in the deprivation of capability and thus in the experience of poverty".[9] The question is thus not only about who leads an impoverished life, but about how the lives of different groups compare and the extent to which these differences are to be explained by structurally determined or ascribed forms of stratification. With social exclusion, the question is also about how social relations and social interaction fare in the above picture.

The upshot of the argument is that it is necessary to develop an integrated approach that:

a) recognizes the multiplicity of the causes of poverty and social exclusion and is able to identify these causes;

b) is cognizant of the temporal dimension of related phenomena (hence the emphasis on processes);

c) appreciates the relevance of individual agency and capabilities and therefore allows for the mediating role of coping strategies and social support;

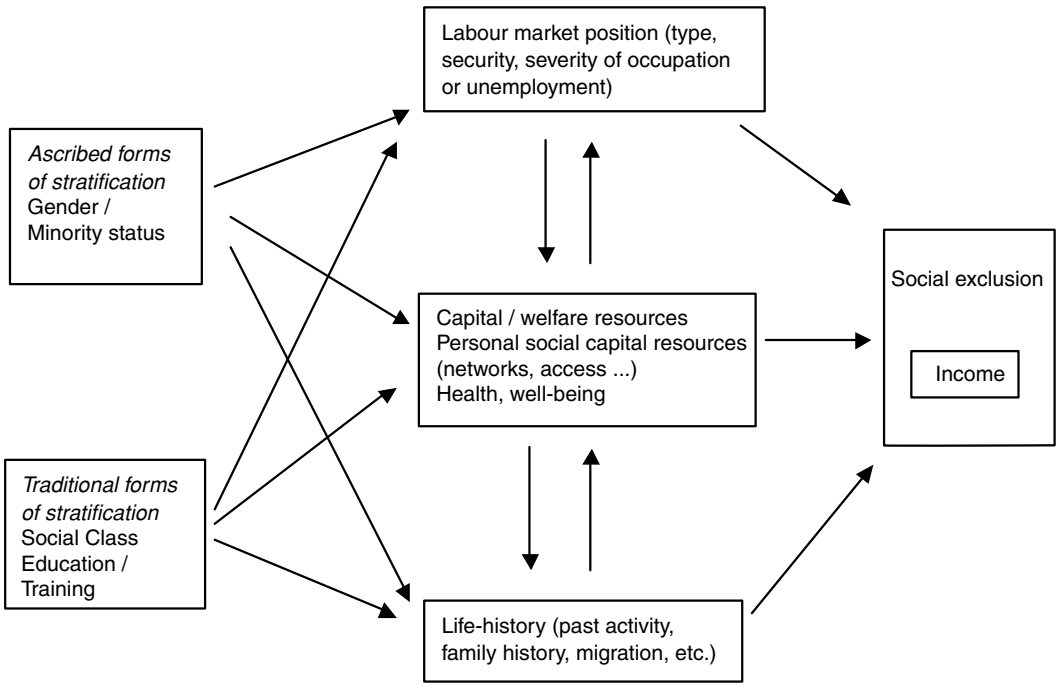
d) is multi-dimensional in tapping both resources and outputs – thus does not consider income the sole resource enabling integration in society nor low income the sole output of lack of integration;

e) allows the study of how income poverty as one dimension of social exclusion is related to other dimensions of social exclusion (or inclusion) including social relations and participation.

Figure 3.1 displays the broad outline of such a framework and the causal sequences involved. It represents an elaboration of the framework developed by EUROSTAT and used in the First European Social Report.[10] The reader will notice that a number of indicators classified as resources re-appear also as output indicators with regard to social exclusion – just as income is a resource yet low income or the risk of income poverty an indicator of social exclusion. The interfaces are complex and often variable across countries or groups. One aim of this report is indeed to throw light into this form of variability.

([7]) See Sen, A. (2000), 'Social Exclusion: Concept, Application and Scrutiny', *Social Development Papers*, No. 1, Office of Environment and Social Development, Asian Development Bank, p.3.
([8]) See among others Layte, R. *et al.* (2001), 'Persistent and consistent poverty in the 1994 and 1995 Waves of the European Community Household Panel', *Review of Income and Wealth*, Series 47, No.4, 427-450.
([9]) Sen, A. (2000) op. cit.
([10]) See Mejer, L. (1999), 'Social Exclusion Statistics', Conference Papers, Statistics Users' Council / CEIES Joint Conference, 22 November 1999; Eurostat (2000) op. cit.

Figure 3.1 Framework of social exclusion in the European Union



Overall, it is important to remember that we are not using income poverty and social exclusion as exclusive but rather as complementary terms which together delineate the pathways and effects of marginalization. That such a framework can never be absolutely obvious or transparent (in the sense of entailing dimensions or variables that neither overlap nor are repeated), is unavoidable given the complexity of the relations involved.

Our analysis is pragmatically constrained by the lack of information on some indicators within the ECHP. The ECHP is a very rich source of information for the study of income distribution and the risk of income poverty but is less comprehensive with regard to indicators on social exclusion, and in particular the relational elements of the latter. Thus whilst it is our objective to further advance the state-of-the-art on the applicability and use of non-monetary indicators in the study of social exclusion, ultimately what we can and do report on the latter is constrained by the non-exhaustive coverage of such indicators in the ECHP.

3.1.2. Poverty and social exclusion are relative measures

In everyday use, poverty in rich countries is often seen as the inability to attain a decent standard of living. Hence the lack of a subsistence level of nutrition, clothing and housing provides one obvious standard. However, what is considered adequate, and what are generally perceived as needs, will change over time and differ across societies. Poverty is in this sense relative, as captured in the often quoted passage from Adam Smith, where he defines 'necessities' as including not only commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even the lower orders, to do without. Sen concludes that it is in the notion of 'shame' that the core of the concept of poverty is to be found: the absence of resources puts people in a situation where they cannot live with dignity in their society. In order to underline the relative aspect of income poverty, in this report we refer to the risk of income poverty rather than to income poverty per se.[11]

3.1.3. Non-monetary or lifestyle deprivation

The general rationale behind the analysis of poverty in relative terms is that those falling more than a certain 'distance' below the average are excluded from the minimally acceptable way of life of the society in which they

([11]) See Dennis, I. (2002), "Social Cohesion Indicators adopted at the Laeken European Council (12/2001): Detailed tables presenting the latest available data", *Working Party Paper*, Eurostat, Luxembourg.

live because of a lack of resources, hence deprivation. However, a number of critics have argued that low income is unreliable as an indicator of poverty because it fails to identify households experiencing distinctive levels of deprivation. Various studies of different industrialized countries have indeed found that a substantial proportion of those on low incomes do not suffer from deprivation while some households above the at-risk-of income poverty lines do experience deprivation.

There are several explanations for this loose relationship between income and deprivation, apart from measurement error. First, the impact of low income on living standards depends on the length of time low income persists, and the availability of other resources (such as savings or help from family and friends) to supplement current income. Secondly, those with adequate resources do not always choose to use these resources to obtain items deemed necessities by the researcher and/or the general population. Finally, one would expect current lifestyle and deprivation to be influenced by many factors other than current income. A range of social and economic processes will influence levels of deprivation. Households at similar levels of current income will have arrived at that position from a variety of different trajectories.

Like the term poverty, the concept of deprivation is a widely used term that is often applied without definition of the underlying concept. Consequently, significant differences can be observed in the manner in which it is interpreted. In our view a central element in the concept of deprivation, is the *absence* of opportunity to have or do something. We therefore take deprivation to mean an inability to obtain the goods and facilities, as well as the inability to participate in activities generally perceived as significant in the community in question. Deprivation reflects constraints on people's choices and not simply the outcomes themselves. While outcomes are easier to observe, distinguishing between the impact of constraints and choices must remain a central objective in measuring deprivation. In attempting to do so we will be interested in indicators where one might reasonably expect *a priori* that absence will most often be attributable to limited resources rather than other constraints such as location or differences in taste. This helps to restrict the areas one seeks to cover in selecting indicators by allowing a concentration on those that are likely to be directly affected by access to financial resources.

3.1.4. Pathways to income poverty and social exclusion

As is shown in Figure 3.1, a risk of income poverty and/or social exclusion can result from two main types of factors: factors that influence the level of 'need' in a household and those that determine the level of 'resources' available. In the first group we can place characteristics such as the household type, i.e. the number of persons in the household, their relationships and age. In the second we can place factors such as the level of education of household members and their social class position, both factors (among the many) that influence the level of remuneration that they will receive in the labour market. Though this differentiation is crude and some 'need' type variables may also influence the level of resources, it does help us structure the analysis and understand the resultant patterns.

Throughout this report we draw this distinction when seeking to characterize the socio-economic profile of those at risk of income poverty, those deprived in terms of lifestyle, those at persistent risk of income poverty and/or those both persistently at risk of income poverty and multiply deprived. Such an analysis is of major significance for social policy as it helps specify the focus of social policies.

Were we to find that 'resources' such as education or social class – the more traditional stratification variables – carry the heaviest weight with regard to explaining the risk of income poverty and/or lifestyle deprivation, then this would suggest that social policies must continue to place an emphasis on improving the socio-economic background basis of citizens, rather than focusing alone on the re-distribution of income. The identification of specific or increased needs deriving from household composition or size, or related to specific life events would indicate how means-tested or other measures ought to be targeted.

3.2. Methodological framework

3.2.1. Data sources for cross-sectional analysis

The cross-sectional analyses (reported in chapters 4 and 6) have been carried out using the data of the Users' Data Base (UDB) for waves 1 to 4 or covering years 1994 to 1997,[12] more specifically the December 2001 version.[13]

In presenting the most recent results, ECHP data from the Users' Data Base for the survey year 1997 have been used in most countries, with the following exceptions:

Germany: Following the third wave of ECHP in 1996, the original ECHP sample was replaced by the existing national panel (SOEP). In the computation of income distribution statistics, the latter has been used for 1997. However, it does not adequately cover the non-monetary or lifestyle deprivation indicators. Hence for those indicators, the original ECHP sample for 1996 survey in Germany has been used.

United Kingdom: Similarly in the UK, following the third wave of ECHP in 1996, the original ECHP sample was replaced by the existing national panel (BHPS). As in the case of Germany, 1997 BHPS has been used for income distribution statistics, while non-monetary or lifestyle deprivation indicators are based on the original ECHP sample for 1996 in the UK.

Luxembourg: In the UDB for waves 1 to 4, data are not available for the 1997 survey year. Both income distribution and non-monetary or lifestyle deprivation indicators are based on the PSEL-1 study, converted into ECHP format for 1996.

Finland: ECHP data refer to 1996 and 1997 only.

Sweden: Sweden did not participate in the ECHP. However, for the 1997 survey (income reference year 1996), income distribution statistics have been compiled in the ECHP format from alternative sources (registers). These have been used where possible in income distribution analysis. However, adequately complete or comparable data on non-monetary or lifestyle deprivation indicators are not available.

In presenting the earliest results, ECHP data from the Users' Data Base for the survey year 1994 have been used in most countries, with the following exceptions:

Austria. The data refer to survey year 1995, that being the first wave of ECHP in the country.

Finland. The data refer to survey year 1996, that being the first wave of ECHP in the country.

3.2.2. Data sources for longitudinal analysis

The longitudinal analyses have been mostly carried out on 'balanced panels' covering the four survey years 1994-97, comprising individuals enumerated in all the four rounds.

For income distribution statistics, this has been possible in all the countries with the following exceptions.

([12]) Unfortunately, it has not been possible to use 1998 data for the analysis in this report, due to the late release of the wave 5 database during the production. Clearly this data would have given more up-to-date cross-sectional information.However, with regard to the socio-economic patterns and trends observed as well as longitudinal analysis, while the 1998 data would have afforded the possibility of additional refinement of some of our conclusions, we seriously doubt whether anything fundamentally or dramatically different would have emerged. Social processes involved with poverty dynamics do not change much in the short term, therefore the four waves with the longitudinal component represent an advance to knowledge of poverty and poverty dynamics in Europe, even without 1998 data. Similarly, the wave 6 database (1994-1999) was not released until December 2002, and there was no scope to repeat the calculations and analysis.

([13]) At first the analysis was carried out using the September 2001 version of the wave 4 UDB (1994-1997). In response to concerns expressed by some Member State delegations vis-à-vis Eurostat regarding the quality of the data, the analysis was repeated using data for 1994-1997 from the revised UDB version released in December 2001 (wave 5). The UK Office of National Statistics (ONS) still has concerns about the quality of the UK income data in wave 5 and requested its national data unit, the University of Essex, to resupply Eurostat with yet another version of its database. This was done for the wave 6 database. These corrections have not been taken into account in this report as they were not available until after it was completed. The reader is therefore cautioned that the analyses reported in this report regarding the UK are not based on officially approved data, thus might not correspond 100 percent to officially published UK statistics. For example, it is known that risk of poverty rates for pensioners are overstated by comparison with results based on wave 6. It is the view of the authors of this report, however, that with respect to the socio-economic patterns and trends observed, as well as longitudinal analysis, the substance of our argumentation is not seriously affected.

- Sweden and Finland: No data are presented for Sweden (where only one reconstructed survey, for 1997, is available), and Finland where only two years (ECHP surveys for 1996 and 1997) are available.
- Austria and Luxembourg: For these countries analysis could be carried out covering only three years: 1995-97 for Austria where the ECHP began a year later than other countries; and 1994-96 for Luxembourg since the data are only available through 1996, based on the converted PSEL-1 which stopped in 1996, and data from the PSEL-2, which covered the period from 1997 through the end of the ECHP are not yet available.
- Germany and the UK: Income distribution statistics for the whole duration 1994-97 are based on the national panels which replaced the original ECHP samples in the countries as of 1997. The original ECHP samples have not been used in these countries for income distribution analysis because they do not cover four years longitudinally.

For constructing longitudinal non-monetary indicators of lifestyle deprivation, the same as above applies in the case of Sweden, Finland, Austria and Luxembourg. However, because of inadequate coverage of these indicators in the national panels replacing the original ECHP samples in Germany and the UK, the original ECHP samples have been used for this purpose. These samples of course cover only three years 1994-96, as noted above in the case of Luxembourg.

3.2.3. Weighting of the longitudinal sample

The ECHP Users' Data Base (UDB) provides sample weights (called the base weights) such that, with these weights, 'sample persons' followed up in the panel at year t provide the best possible representation of the population. In studying longitudinal deprivation, it is possible to include in the analysis only a 'balanced panel', i.e. individuals who were followed-up in year t as well as all the preceding years during the period under observation (i.e. t-1, t-2, etc.). The balanced panel may fall short of the sample at time t used in the construction of ECHP weights. We have re-weighted the former to reflect the latter to the best extent possible. However, the modifications to the weights involved are generally small because most of the panel attrition is cumulative, i.e. it affects both samples equally. It would have been much less appropriate (and potentially much more distorting to the ECHP weighting structure) to re-weight the balanced panel to reflect the original ECHP sample at the first wave.

3.2.4. Imputations of non-monetary deprivation items

Non-monetary deprivation items which are of particular relevance for the analysis in chapters 6 and 7 are not available for all households, thus had in part to be imputed. The imputation procedures have been based on the 'sequential regression multivariate imputation' (SRMI) approach adopted by the imputation software IVE-ware. The method proposed by the authors of the software builds the imputed values by fitting a sequence of regression models and drawing values from the corresponding predictive distribution, under the hypothesis of Missing at Random (MAR) mechanism, infinite sample size and simple random sampling.[14]

All those households for which household income was available (~98.5 percent) *and* the number of missing non-monetary items was below 7 (~99.5 percent) could be imputed. All other households (and individuals therein) had to be excluded from further analysis. Thus approximately two percent of households which were originally in the ECHP Users Data Base had to be excluded for the present analysis.

3.2.5. Basic statistical definitions and caveats

The following are some basic definitions that apply to all chapters that follow. A Glossary can be read in Annex 1 of this report.

- To control for the differing price levels across EU Member States, purchasing power standards (PPS) are used to convert household incomes in national currencies to standard units of measurement.
- Monetary resources are measured with reference to equivalized household income which controls for household size in relation to the age of individual household members. Household income is equivalized

([14]) Raghunathan T. E., Lepkowski J., Van Voewyk J., Solenberger P. (1997): 'A Multivariate Technique for Imputing Missing Values Using a Sequence of Regression Models', *Technical Report, Survey Methodology Program*, Survey Research Center, ISR, University of Michigan.

using the 'modified OECD' or EU scale, which assigns a weight of 1.0 to the first adult, 0.5 for each subsequent person aged 14 or above, and 0.3 for each child under 14 in the household. The household equivalized income is then assigned to each member of the household. Individual persons form the units for all analysis of equivalized income distribution.

- The various measures are constructed separately within each Member State according to the national level and distribution of equivalized income. The simple mean of these measures referred to as the 'country average' summarizes patterns in EU Member States. To obtain EU-level average measures country data are weighted in proportion to their respective population sizes – the latter are labeled EU-15.
- The median income is used to describe the income level of a typical person in the EU or any EU Member State. Fifty percent of all persons in any given society have an income below the median level, while fifty percent have a higher income. The median also serves as a benchmark to describe relative income positions and risk of income poverty.
- Deciles represent income positions for each 10 percent of the population. The economic distance between the highest and lowest deciles in the income distribution – the so-called P90/P10 measure – is one measure of income inequality in a society. Another common measure of inequality is the S80/20 measure which compares the total income received by the top quintile (or top two deciles) of the income distribution with that received by the bottom quintile (or bottom two deciles).
- The Gini-coefficient provides a commonly used measure of disparity of the overall income distribution.
- Rather than rely on a single arbitrarily chosen cut-off, the proportions of the population under various levels in the income distributions should be shown: specifically, below 40, 50 and 60 percent of the mean, and below 50, 60 and 70 percent of the median. Among the two sets, those in terms of percentages of the median are preferable. When the choice of a single cut-off is required, the 60 percent of the median is recommended. The latter is used for the cross-sectional analysis reported in this report, whereby the Annex (3) includes a series of tabulations also with the 50 percent cut-off lines.[15] The longitudinal analysis makes use of both the 60 and 70 percent cut-off lines.
- Persons falling below the threshold of 60 percent of the median income are referred to in this report as being at risk of (income) poverty in accordance with recommendations made by the Laeken Council (December 2001).[16]
- The intensity of poverty risk is described by the at-risk-of poverty gap – this represents the average shortfall below the at-risk-of poverty line (measured in terms of the median) as a percentage of this threshold. A further important aspect of poverty risk is income inequalities among the poor which are measured by the Gini-coefficient of low incomes. The Sen-index provides an overall measure, which combines the different aspects of the risk of income poverty: incidence, intensity and inequality among those at risk of poverty.
- To supplement the conventional poverty rate or 'head-count ratio' defined in terms of a fixed at-risk-of poverty threshold, we also constructed an alternative measure which assigns a degree of poverty (in the range 1 for the poorest and 0 for the richest) to each person depending on the position of the person in the income distribution. This alternative measure enriches the analysis of the relative position of different risk groups in the population by taking into account not only their level of income poverty risk (as measured, for instance, by the conventional head-count ratio), but also the intensity of poverty risk implied by the income levels, in particular at the lower end of the distribution. More on this measure can be read at the last section of this chapter.
- For longitudinal analysis, a minimum period of four consecutive years is recommended. Any-time at-risk-of poverty is defined as being recorded in this state of risk for at least one of the four years. Persistent risk of poverty applies to the proportion of the population living in households where the total equivalized income was below 60 percent of the media equivalized income in year t and at least two of the previous years t-1, t-2 and t-3.[17]

([15]) Compare tables A4.2 and A4.3 with tables A4.4 and A4.5 in Annex 3.

([16]) Dennis I (2002) op. cit.

([17]) This definition is likely to result to slightly lower estimations of persistent risk of poverty than those using the earlier (2000/01) Eurostat definition of the same variable which considered persistent poverty to be present if the condition of risk of poverty occurred in three consecutive years. This condition is an arbitrary one from the analytic point of view and indeed it could well be argued that the dynamics of income poverty risk should take a broader rather than a narrower definition (as the objective is not alone, or even primarily, to establish beyond doubt the number facing the persistent risk of poverty but rather to explore the pathways into this state). With this in mind we report in Annex 3 the numbers of those persistently at risk of poverty (as well as those persistently at risk of deprivation) using both the new and the older definitions. Compare tables A7.1a with A7.1b, A7.2a with A7.2b, A7.3a with A7.3b and A7.4a with A7.4b.

Using longitudinal data introduces a number of problems of its own and it is worthwhile outlining these problems. First of all, we do not know when those recorded as at risk of income poverty in 1993, which is the first year for which we have information, entered that state. Thus, those leaving by the next year will contain cases of people and households which have experienced longer spells of poverty risk than at least some of the households who did not exit. Similarly, we have no information on when or whether those in a state of poverty risk at interview in 1998 left this state. This 'left' and 'right-hand' censoring is unavoidable in short runs of panel data, but means that we are not looking at 'spells' of poverty risk as such, but years of poverty risk across a period. Panel attrition in the ECHP also means that we lack information on the situation of some people for all four years of the survey and this leads to premature right censoring for some cases. This can be handled using particular analytical techniques, but in the descriptive analyses in this report we side step the issue by only analyzing those people who were in the sample for all four years and weight these to be a representative sample of the population.

Another issue to keep in mind when reading through the longitudinal analyses of this report concerns the income reference periods. Throughout this report, we have specified time periods as referring to the ECHP survey years to avoid confusion. Actually, different variables in the panel survey refer to different time periods. While many characteristics are measured at the time of the survey, income data pertain to the calendar year preceding the survey. Hence for the survey periods 1994-1997 analyzed here, the income profiles are for calendar years 1993-1996.

3.2.6. Key variables or analytical viewpoints

The analysis makes use of a number of key variables, some of which are already defined in the Users' Database, others were constructed specifically for this analysis.

Household type

Using the ECHP variables we constructed a household typology that differentiated households according to the number of individuals, their ages and their relationships to form meaningful groupings such as single parents (an adult and one or more children living alone), elderly couples (aged 65+), or families with large numbers of children (here defined as three or more).

Educational level of the household

The household's educational level is determined on the basis of the educational attainment level of all household members. The three basic levels of individual education levels are low (ISCED 0-2), middle (ISCED 3) and high (ISCED 5-7). In total five categories of households were identified: (a) all adults high education; (b) at least one adult high education; (c) all adults middle education; (d) at least one adult middle education; (e) all adults low education.

Labour force status

The labour force status of individuals is assigned on the basis of self declaration and refers to the most frequent activity of a person in the reference year. Four states are distinguished: (a) economically active at work and employed; (b) economically active, at work and self-employed; (c) economically active and unemployed; and (d) economically inactive.

Employment precariousness of the individual

The ECHP questionnaire gives information on the respondents' employment status at the time of the interview, and whether they were unemployed in any of the months in the previous year. Additional information is available on whether an individual has experienced unemployment in the last five years. A scale of precariousness was constructed by separating those respondents who reported current unemployment and were also unemployed in the previous year. A further distinction was drawn according to whether an individual was unemployed for more or less than six months in the previous year. In total six categories were identified: (a) unemployment at the time of the interview and more than six months of the previous year; (b) unemployment at the time of the interview and less than six months of the previous year; (c) unemployment at the time of the interview without

unemployment in the previous year; (d) no unemployment at the time of the interview but at least once in the previous five years; (e) no unemployment in the last five years, and (f) economically not active.

Social class position

Social class refers to a set of locations (rather than persons) identifiable by their relationship to dimensions of advantage and disadvantage in the labour market and more widely. Class allows us to sum up a number of other forms of disadvantage in a manner that tends to be stable across time. The classification used here is an aggregated version of the CASMIN class schema.[18] The original characteristics used for the class definition refer to present or previous occupational position and include the number of employees in the establishment. The original schema is here collapsed from eleven categories into a six-category version. In this version the self-employed are divided between those with and without employees and those engaged in farming. Employees are themselves split between the non-manual and manual whereby managers in large establishments are again separated from the rest of non-manual workers.

Work intensity of the household

The work intensity of the household refers to the number of months which all household members in working age (i.e. 18-64) have been working (based on self declaration) and is expressed as proportion of the total number of months that could theoretically be worked within a particular household (i.e. months spent by working age household members).

The study of transitions

We are able to examine transitions out of and into a risk of income poverty across the period from 1994 to 1997, which includes three possible exits assuming that a state of poverty risk existed in 1994, three possible entries assuming not at risk in 1994, and more complex permutations such as two possible re-entries assuming poverty risk in 1994 but not in 1995.

Social transfers

Chapter 8 analyzes the importance of public social transfers in disposable income of European households and in alleviating risk of poverty. The following transfers are distinguished: pensions, family and child benefits, unemployment benefits, sickness and invalidity payments, social assistance, housing allowance, and other personal benefits. Table A.8.1 in Annex 3 gives the unweighted number of transfer recipients and sample sizes for 1997. In order to separate pensions from other transfers, the latter were merged into the category of *non-pension transfers*. Different transfer categories were analyzed for different sub-populations: all social transfers for the entire population, pensions for the pension-age population (61 years and above) and non-pension transfers for the working age-population (20-60 years). Household equivalized incomes were grouped into four categories for the analysis of the distributive effects of transfers: 'low' income to refer to below 60 percent of national median; 'middle' income to cover the range 61 to 120 percent of median; 'high' income to cover the range 121 to 180 percent of median and 'extreme' income to cover incomes above 181 percent of median.

It should be noted that

- Pension data include pensions from all three pillars: primary – state pensions; secondary – occupational pensions; third – private pensions. However for the contemporary pension-age population, the share of private pensions to the total is small. This is also why in our argumentation in chapter 8 we refer to the impact of *public* pension systems.
- Social assistance data are not available for UK and for Germany for 1994.
- Data on other personal benefits are not available for Germany and Denmark.
- When analyzing the role of unemployment-related benefits in overcoming poverty risk for the unemployed population, information on last year's labour market status was used. This information is not available for the Netherlands and Sweden.

([18]) See Erikson, R. and Goldthorpe, J. H. (1993), *The Constant Flux*, Clarendon Press, Oxford.

- When interpreting the results for Finland it should be kept in mind that in Wave 4 the sum of transfers is greater than the household disposable income for 746 households out of 4,096 (this affects 1,376 individuals out of 10,853). This is because adjustment for social transfers is only possible on a gross basis in Finland, which can have a consequent impact on the accuracy of calculated indicators.

3.2.7. The analysis of non-monetary indicators

From the wide range of individual items or indicators available in the ECHP, we began the analysis by selecting the more meaningful and useful ones[19]. It is desirable to avoid items where issues of choice in terms of possession versus non-possession cannot be satisfactorily resolved, where the possession is relatively rare, or where the degree of comparability is insufficient for the purpose of cross-country analysis. On the basis of these considerations, we selected 24 from some 40 indicators available in ECHP for further analysis.[20]

Subsequently we grouped individual items into major non-monetary 'dimensions' of lifestyle deprivation. These dimensions are more meaningful and also more comparable across countries than individual indicators or items. Using factor analysis, the 24 individual items have been grouped into five dimensions of non-monetary lifestyle deprivation: basic lifestyle deprivation, secondary lifestyle deprivation, lack of housing facilities, housing deterioration, and environmental problems:

- Basic lifestyle deprivation – comprising items such as food and clothing, a holiday at least once a year, replacing worn-out furniture, and the experience of arrears for scheduled payments.
- Secondary lifestyle deprivation – comprising items that are less likely to be considered essential such as a car, a phone, a colour television, a video, a microwave, and a dishwasher.
- Housing facilities – housing services such as the availability of a bath or shower, an indoor flushing toilet and running water, facilities likely to be seen as essential.
- Housing deterioration – the existence of problems such as a leaking roof, dampness and rot in window frames and floors.
- Environmental problems – problems relating to noise, pollution, vandalism and inadequate space and light.

We constructed composite indicators for each of these dimensions and analyzed them separately. Subsequently, we combined these to construct a single index of overall non-monetary or lifestyle deprivation.

The construction of composite indicators used item weights to reflect the discriminatory power of each individual item in any particular country. Dimension weights were taken as proportional to a weighted (with item weights) average of coefficients of variation of items in the dimension. The item and dimension weights can be read in tables A6.2 and A6.3 respectively in Annex 3 of this report. The methodology is explained in Annex 2.

Chapter 6 reports cross-sectional results both for the overall index of deprivation and the individual dimensions as well as longitudinal results for the former.

Chapter 7 looks at the prevalence of deprivation among those at risk of poverty in 1997 and longitudinally with reference to the 'balanced panel' by number of years at risk of poverty. More specifically, chapter 7 looks at:

a) the prevalence of deprivation of individual items;
b) the extent of deprivation across the basic and secondary dimensions, measured with reference to the number of items (3+) not available or not affordable;
c) multiple deprivation defined in two ways as being deprived respectively, on two or more, then on three or more of the five lifestyle dimensions – in each case with regard to at least one item per dimension;
d) current lifestyle deprivation (CLSD) which represents the weighted index of deprivation across the basic and secondary dimensions (only), whereby for the purpose of relative analyses, the threshold is such below

(19) For an earlier discussion, see Eurostat (2000) op.cit.
(20) An alternative approach would have been to use indicators specific to each country but designed to capture the same underlying condition of exclusion. However such an approach is problematic from the comparative perspective and runs a high risk of being non-systematic in the latter context. Explaining and substantiating why any specific variable is 'meaningful' in one country and not in another would also not be straightforward, requiring additional contextual information on each country which is not available and which to obtain would be beyond the scope of this study.

which the proportion of respondents matches as closely as possible that found below the 60 percent median income line.[21]

In addition, chapter 7 analyses several other non-monetary indicators, including primarily those relating to health, social relations and subjective well-being, and their relation to the risk of income poverty.

3.2.8. The 'fuzzy set' approach

Next to the several conventional measures for analyzing poverty and deprivation outlined in the previous sections, this report introduces the so-called 'fuzzy set' approach. This replaces the conventional classification of the population into the simple dichotomy of at-risk or not-at-risk of poverty by a measure of the degree of, or propensity to, income poverty risk as a function of the individual's position in the income distribution. This propensity is defined to be in the range 1 (the poorest) to 0 (the richest). The population of those at risk of poverty, therefore, comprises in principle the whole population, but each individual only to a degree. A person's propensity to be relatively at risk of poverty depends both on the rank it takes in the income distribution and the share of the total resources the person owns. The degree of poverty risk, as measured by the 'fuzzy' measure, reflects the combined effect of the level and the degree of poverty risk. This measure was scaled to correspond to the conventional '60 percent of the median' relative at-risk-of poverty rate within each country, as recommended in the Eurostat definition. It is shown in Chapter 4 that by taking into account the degree of poverty risk rather than simply assuming a discrete state, some further insights on target groups within the national population of each Member State can be gained.

In Chapter 5 these quantitative measures of poverty risk are developed for the study of dynamic aspects. The approach permits straightforward construction of indicators of persistent and any-time poverty risk (and their difference, transient poverty risk), which, unlike conventional measures, avoid defining transitions simply as movements across some arbitrary at-risk-of poverty threshold.

Chapter 6 demonstrates how the approach can be applied also to non-monetary variables in determining the relative degree of lifestyle deprivation. We first combined deprivation indicators on individual items to construct measures for different dimensions of deprivation, and then also combined the latter to construct a single measure of overall lifestyle deprivation formally similar to the income at-risk-of poverty rate. This permitted the construction of indicators of persistent and any-time non-monetary or lifestyle deprivation.

The 'fuzzy set' approach methodology and how this was applied to construct various indices regarding both monetary and non-monetary deprivation is described in detail in Annex 2 of this report.

([21]) The reader is cautioned that this definition of a threshold is different from that used in Chapter 6 for the overall index of deprivation, which used C=0.6, meaning that individuals lacking 60 percent (i.e. 15 of the 24) or more items are considered the 'most deprived'.

4. Income Distribution and Risk of Income Poverty

This chapter reports on the income distribution and risk of income poverty in the European Union and in the EU Member States from a comparative perspective. It examines differences in the level of prosperity of individual countries to the average of EU Members States in 1997, and how income levels have changed since 1994. It also contrasts affluence and inequality patterns between and within EU-Member States as well as between broader regions, such as the North and Southern European countries. The discussion on inequality concludes with a detailed examination of the extent and severity of poverty risk in the EU-Member States.

The analysis will inform our understanding with regard to the social situation of European citizens and will provide first insights into the causes and pathways to risk of income poverty and exclusion. The chapters that follow will take a closer look at poverty risks through longitudinal analysis (Chapter 5), cross-sectional and longitudinal dimensions of non-monetary or lifestyle deprivation (Chapter 6), and at income and non-monetary aspects in combination (Chapter 7).

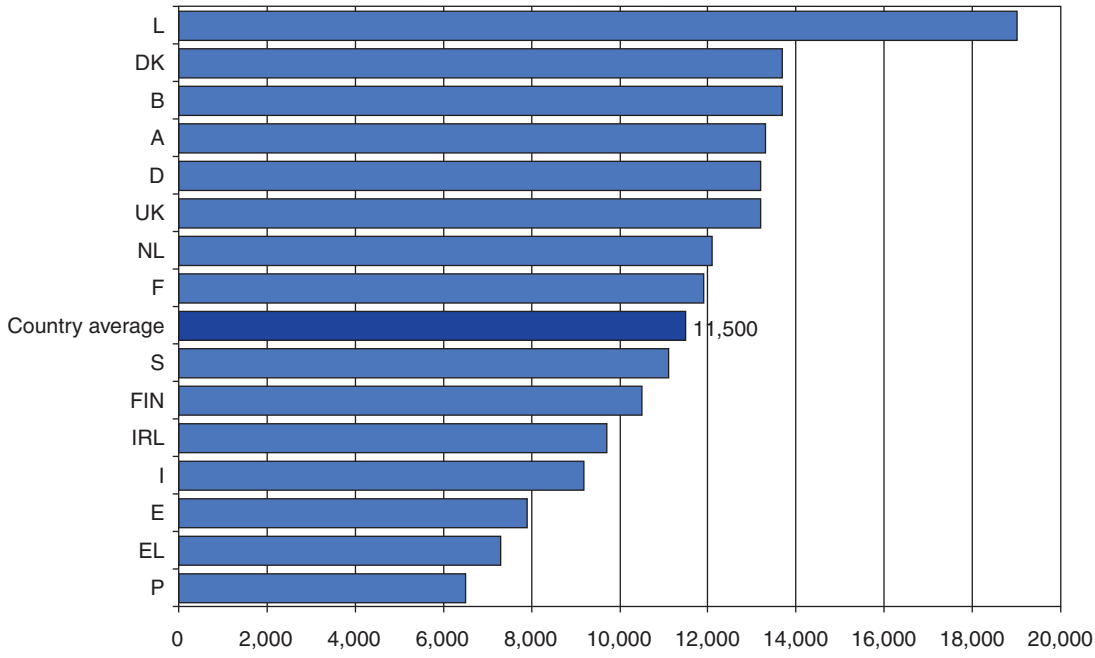
4.1. Income levels in 1997

In 1997 the average income level in the European Union amounted to 11.500 PPS. This ranged from 6.500 PPS in Portugal to 19.000 PPS in Luxembourg. Figure 4.1 displays these differences.

In comparative perspective, Portugal, as well as Greece and Spain are the least prosperous of the European Member States with a median income level equal to or below 8.000 PPS. Ireland, Italy and Finland are also to be found below the European average, however the distance is significantly smaller.

France, the Netherlands and Sweden have income levels around the average of European countries. The United Kingdom, Austria, Germany, Belgium and Denmark have average income levels above the country average, between 13.000 and 14.000 PPS. The most prosperous EU Member State is Luxembourg. A typical citizen of Luxembourg has a yearly income of 19.000 PPS which is close to three times more than that of a Portuguese citizen and an extra 5.000 PPS higher than the median income level in Denmark.

Figure 4.1 Median income levels in the Member States of the EU, PPS, 1997



These findings are largely consistent with GDP per capita figures which are one of the measures used to determine eligibility and share of contributions for the Regional Structural and Cohesion Funds. Both measures, however, have a significant limitation – they say little about the income distribution within a society. We return to this question later. First, we compare the income levels in 1997 with those in 1994.

4.2. Income levels and distribution 1994 to 1997

In the period between 1994 and 1997, the median income level within EU-Member States increased, yet these changes appear minor given the economic growth rates and inflation for that period. Table 4.1 compares the median income levels expressed in PPS for this reference period. In 1997 the median income level in EU-Member States was approximately 10 percent higher than in 1994 in nominal terms (ie. without taking into account the impact of price inflation on the purchasing power of incomes); this corresponds to an average increase of 2.5 percent per year. The increase was more marked in Denmark, the United Kingdom, Portugal, and, in a particularly exceptional way, in Ireland, where the total increase amounted to more than one quarter, or 6.5 percent per year. Data for Austria and Luxembourg is available only for three years during which the median income level remained almost unchanged. Similarly the results for Finland relate only to the years 1996 and 1997 and are thus not strictly comparable.

Table 4.1 Median income levels 1994/1997, PPS

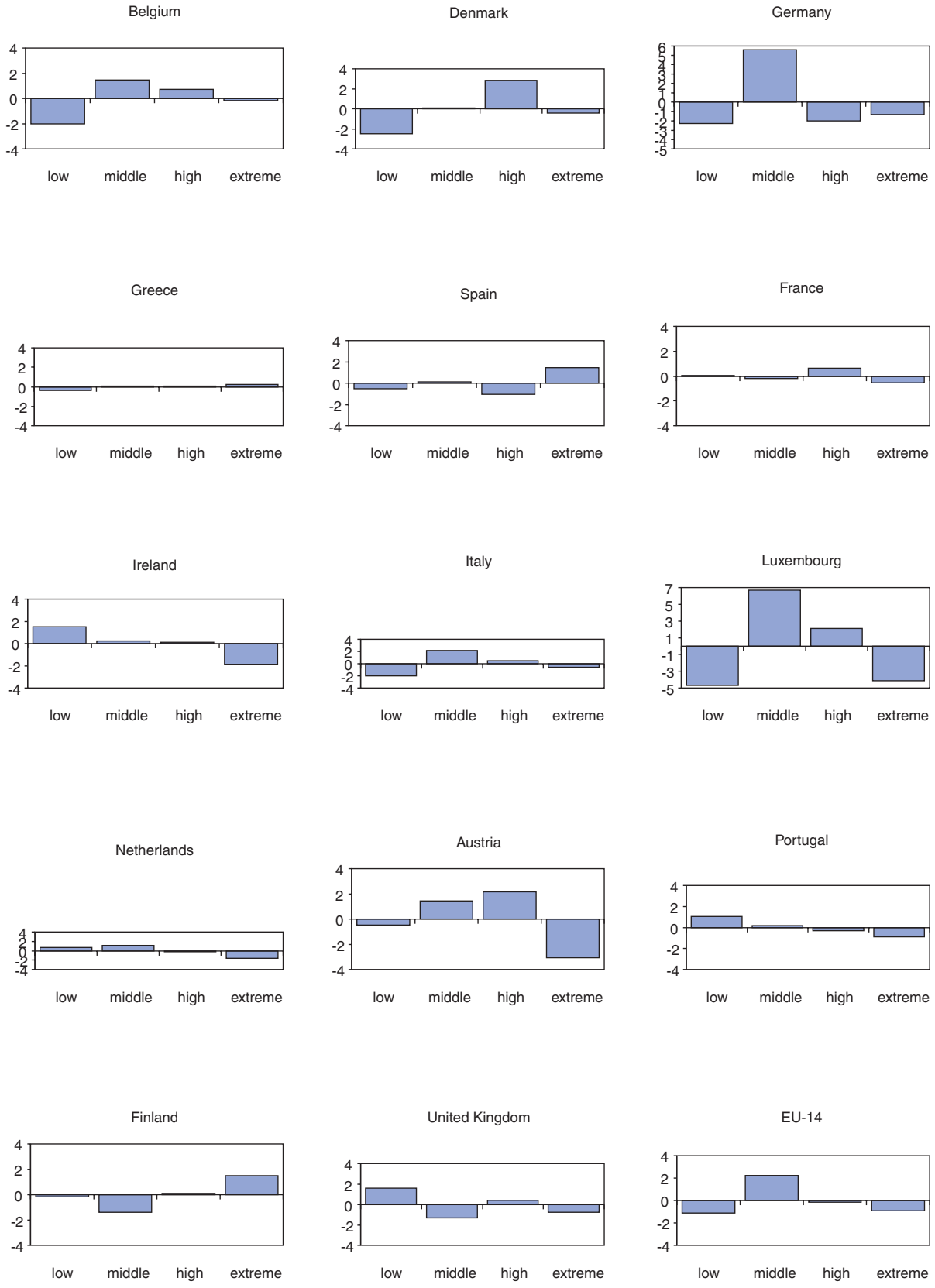
	1994	1997	increase/ year
Belgium	12,900	13,700	1.6%
Denmark	11,900	13,700	3.8%
Germany	12,100	13,200	2.3%
Greece	6,400	7,300	3.5%
Spain	7,500	7,900	1.3%
France	10,900	11,900	2.3%
Ireland	7,700	9,700	6.5%
Italy	8,600	9,200	1.7%
Luxembourg	18,500	19,000	0.9%
Netherlands	10,700	12,100	3.3%
Austria	12,900	13,300	1.0%
Portugal	5,800	6,500	3.0%
Finland	10,500	10,500	0.0%
Sweden	n.a.	11,100	n.a.
United Kingom	11,200	13,200	4.5%
Country average	**10,500**	**11,500**	**2.5%**
EU-14	10,300	11,300	2.5%

The overall increase of prosperity in EU-Member States was not distributed equally among income groups. To illustrate these changes four broad income groups were defined with reference to the relevant median income level in each year:

- 'low' incomes amount to less than 60 percent of the national median;
- 'middle' incomes are between 60 and 120 percent of the median;
- 'high' incomes fall in the range between 120 and 180 percent of the median;
- 'extreme' incomes exceed 180 percent of the median income level.

Figure 4.2 shows the percentage change of the share of persons to be found in each of the above income groups between 1994 and 1997.

Figure 4.2 Changes in the percentage of persons with 'low' and 'high' incomes, 1994- 1997



On average, EU-Member States reveal a tendency towards 'middle' and 'high' incomes and a lower proportion of persons who belong to the 'low' or 'extreme' income groups. This general pattern holds for Belgium,

Denmark, Germany, Luxembourg, Italy and Austria. In contrast, the population share of the 'low' income group has increased in the Netherlands, Portugal, the United Kingdom and Ireland, while that of 'extreme' incomes has only increased in Spain and Finland. The most significant changes occurred in Germany and Luxembourg which both showed a pronounced increase of 'middle' incomes. A remarkable change also occurred in Austria and Denmark with regard to 'high' and 'extreme' incomes. While in Denmark the share of 'high' incomes increased, the proportion of persons with 'extreme' incomes dropped significantly in Austria. A stable pattern is observed for France and most Southern European Countries and, especially, Greece.

Those three countries which displayed the most significant improvements in the overall standard of living, namely Denmark, Ireland and the United Kingdom, are quite different with regard to who benefited most from these improvements:

- In Denmark, the share of 'low' incomes decreased to the same extent that the proportion of 'high' incomes increased.
- In Ireland, almost the opposite is the case: at variance with the improvement of overall prosperity, there were more people in 1997 with 'low' incomes. This was balanced by a decrease in the number of people who were counted in the 'extreme' income group.
- In the United Kingdom, we observed an increase of 'low' and 'high' incomes. This is paralleled by a decrease in the numbers of people with 'middle' or 'extreme' incomes.

These examples illustrate that improvements in the overall standard of living do not necessarily imply a uniform partaking of this improvement. Inequalities may be reduced but also aggravated. This is why income analysis must always contemplate the *distribution* of income. To this we turn to in the next two sections.

4.3. The economic distance between high and low incomes

A common representation of income positions is obtained by ranking individuals according to income and identifying the boundary values which separate equally sized groups, for instance the ten groups which each include 1/10th of the population. The upper boundary values of ten equally sized income groups are also called deciles.

Following this procedure we find that in 1997 on the lower side, 10 percent of all Portuguese persons lived in households which earned less than 2.800 PPS per year, whereas on the upper side 10 percent lived in households which earned more than 15.800 PPS. The ratio between these highest and lowest values is the so-called P90/P10 ratio which characterizes the economic distance between the richest and poorest in a society. In 1997, this ratio was 4 : 1 in the average of EU-Member States. In Portugal and Greece this ratio was highest and close to 6 : 1. This means that a Portuguese or Greek person living in a rich household has on average six times more income at his or her disposal than a Portuguese or Greek person who lives in a poor household.

Table 4.2 displays these figures for all EU Member States. Similar levels of inequality to those found in Portugal and Greece also appear in Spain and the United Kingdom where the P90/P10 measure[22] exceeds 5.0. On the other hand, Luxembourg – the most prosperous EU-member state – has a far less unequal income distribution: the economic distance between the richest and poorest in Luxembourg is close to 3 :1.

The lowest income inequality is displayed by the Nordic Countries where the P90/P10 ratio remains well below 3 : 1. Denmark has the lowest P90/P10 ratio at a level of 2.5 followed by Sweden (P90/P10 = 2.6) and Finland (P90/P10 = 2.7).

The dispersion of incomes can be better compared between countries when deciles are expressed as percentages of the median income level in a particular country. In Denmark the lowest decile amounted to 63 percent of the median income level, which compares with 43 percent in Portugal and 37 percent in Greece. Those countries which display particularly low bottom deciles are also characterized by more extreme top levels. For instance, the richest income group in Portugal could count on at least 243 percent of the median income level while Denmark's top decile amounted to only 155 percent of the median level.

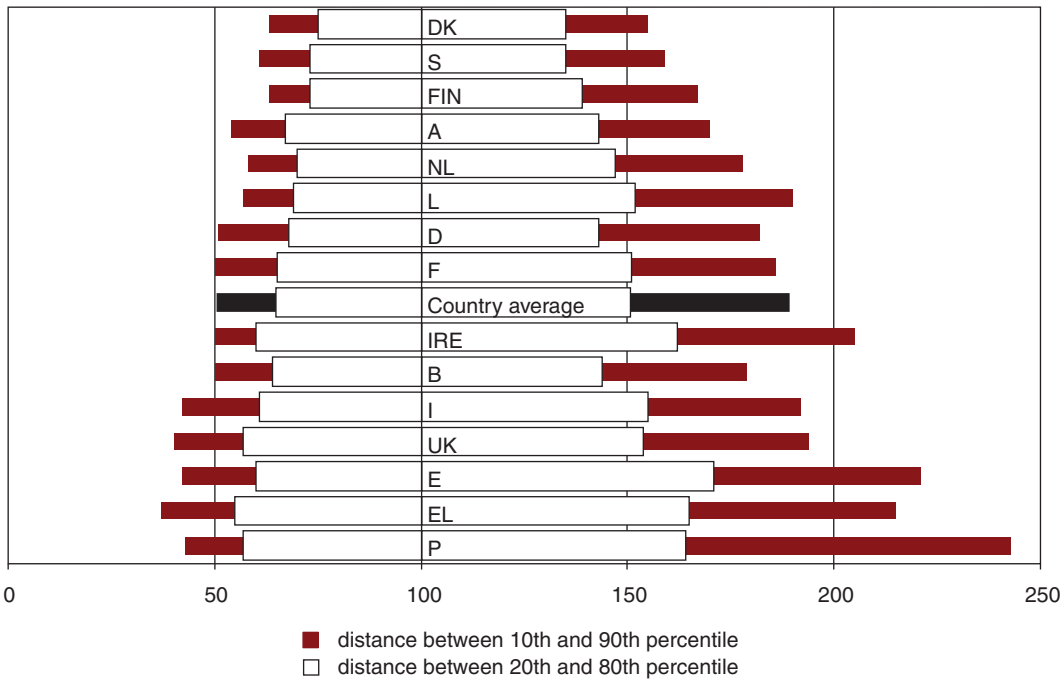
([22]) Note: data for the lowest income decile can present particular reporting difficulties, and for this reason the P80/20 ratio is generally preferred to the P90/10 ratio.

Table 4.2 Income distribution in EU-member States, percentiles of Median, 1997

	.. % of the population have less than									
..% of the median level	10	20	30	40	60	70	80	90	P90/P10	Median (= 100)
Belgium	50	64	76	88	111	124	144	179	3.6	13,700
Denmark	63	75	86	95	110	122	135	155	2.5	13,700
Germany	51	68	80	90	110	124	143	182	3.6	13,200
Greece	37	55	71	84	115	135	165	215	5.8	7,300
Spain	42	60	72	85	115	138	171	221	5.3	7,900
France	50	65	76	87	113	130	151	186	3.7	11,900
Ireland	50	60	71	85	116	136	162	205	4.1	9,700
Italy	42	61	73	84	115	134	155	192	4.6	9,200
Luxembourg	57	69	80	88	113	130	152	190	3.3	19,000
Netherlands	58	70	79	89	111	126	147	178	3.1	12,100
Austria	54	67	78	89	111	124	143	170	3.1	13,300
Portugal	43	57	70	85	114	133	164	243	5.7	6,500
Finland	63	73	82	90	110	123	139	167	2.7	10,500
Sweden	61	73	83	91	109	120	135	159	2.6	11,100
United Kingom	40	57	71	84	113	132	154	194	4.9	13,200
Country average	**51**	**65**	**77**	**88**	**112**	**129**	**151**	**189**	**3.9**	**11,500**
EU-15	47	63	75	87	113	130	152	191	4.2	11,300

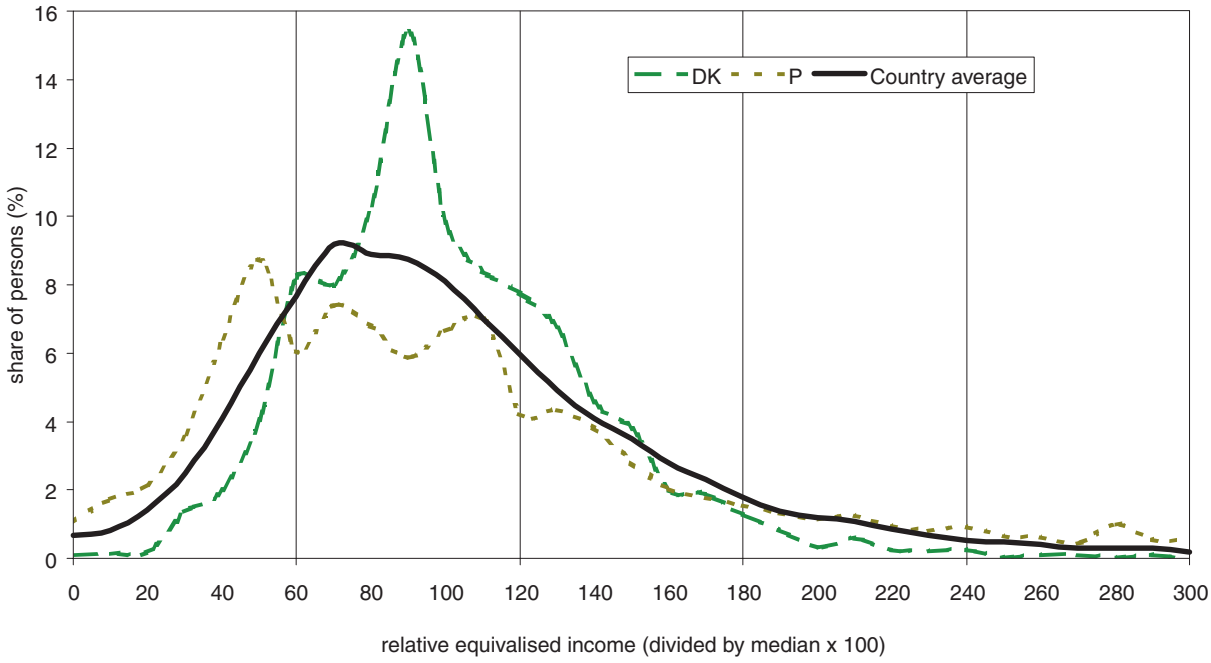
Figure 4.3 visualizes top and bottom income positions. The left end of the graph identifies the position of the lowest decile while the right end represents the highest income position. Countries with a high P90/P10 ratio, i.e. with a high degree of inequality, are found in the lower part of the figure. Generally, the higher income positions appear to be more distant from the median income level (vertical axis) than the low income positions. This asymmetry in favour of the high income positions is most noticeable in countries with higher inequality. When the income range is set more narrowly between the 2nd and the 8th decile, the differences between countries are generally less marked but the order of countries remains almost the same[23].

Figure 4.3 Distance between top and bottom incomes in EU-15, 1997



([23]) Op.cit.

Figure 4.4 Income distribution in Denmark, Portugal and Country average, 1997



As an illustration, Figure 4.4 depicts the income distributions of Denmark and Portugal and compares these distributions to the average for EU Member States. In Denmark, as in all Nordic countries, we find a high share of persons in the middle income range. In Portugal, on the other hand, as in other Southern European countries, a much more dispersed range of incomes appears, with higher shares of persons at either extreme of the income distribution. The Benelux and countries such as Germany, France, and Austria, have an income distribution which is similar to the average of EU-Member States. The income distributions in the United Kingdom and Ireland are more similar to those of the Southern European countries.

4.4. Concentration of income resources

The P90/P10 measure of economic distance between the highest and lowest deciles does not capture extreme inequalities beyond the specified income range. This can be redressed by looking at the shares of equivalized income available to individuals in the highest and lowest income quintile groups. The ratio of the two, known as the S80/S20 ratio, is one measure of income concentration in a society. The higher this is, the higher the income concentration, thus the greater the income inequality.

In 1997 the lowest quintile group in the European Union was in possession of only eight percent of the total income resources. In contrast, the highest income quintile held 38 percent of all income resources. The income concentration S80/S20 ratio was just below 5 : 1.

- The lowest S80/S20 ratio – thus lowest income concentration and lowest income inequality – is found in Denmark (3 : 1). There, the lowest and highest income quintile groups own 11 and 32 percent of the total income resources respectively. This is in line with the findings from the previous section which showed Denmark as the country with the lowest economic distance between the highest and lowest income decile (P90/P10 ratio). Again, a similar pattern emerges in the other Nordic countries. Finland and Sweden show income concentration levels of 3.2 : 1 and 3.3 : 1 respectively.
- The highest S80/S20 ratio – thus highest income concentration and highest income inequality – is found in Portugal (7.3 : 1), followed by Greece (6.7 : 1), Spain (6.5 : 1) and the United Kingdom (5.8 : 1), again largely conforming with the findings reported in the previous section. In Portugal the lowest and highest quintile groups are in possession of 6 and 45 percent of the total income resources respectively. The respective figures for Greece and Spain are 6 and 42 percent and for the United Kingdom 7 and 40 percent. Interestingly, Ireland, which was similar to the United Kingdom and the Southern European countries in

terms of economic distance between the highest and lowest income deciles, has an income concentration which is less extreme and closer to the European average.

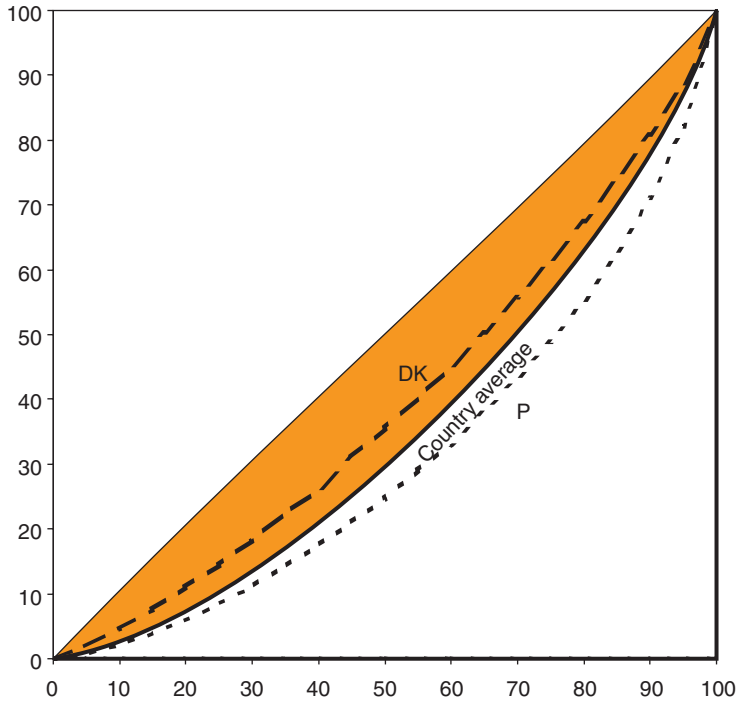
Another established measure of income concentration is the so-called Gini coefficient. The Gini coefficient ranges from 0 to 100. A value of 0 characterizes a society of absolute income equality where all individuals have the same income. A value of 100 indicates the maximum possible income inequality and would materialize if all the income were in the possession of a single person. The Gini-coefficient compares the actual welfare with the welfare which would be achieved if the same resources were to be evenly distributed. It can thus be read as the percentage of income which does not contribute to welfare. In 1997, the Gini-coefficient for Denmark was 21 which compares to 38 in Portugal. The other Member States were found in-between this range. The average Gini coefficient for the whole of Europe was 30 (Table 4.3).

Table 4.3 Shares and concentration of incomes among income groups, 1997

..% of resources	20 % lowest	2nd fifth	3rd fifth	4th fifth	20% highest	S80/S20	Gini
Belgium	8	13	16	21	42	5.5	34
Denmark	11	15	19	23	32	3.0	21
Germany	9	14	18	22	37	4.3	28
Greece	6	12	17	23	42	6.7	35
Spain	6	12	16	23	42	6.5	35
France	8	13	18	23	38	4.5	29
Ireland	8	12	16	23	41	5.1	33
Italy	7	13	18	24	38	5.5	31
Luxembourg	9	14	17	23	37	4.0	28
Netherlands	9	14	18	23	36	3.9	27
Austria	9	14	18	23	35	3.7	26
Portugal	6	11	16	22	45	7.3	38
Finland	11	15	18	22	34	3.2	23
Sweden	11	16	19	23	33	3.1	22
United Kingom	7	13	17	23	40	5.8	33
Country average	**8**	**13**	**17**	**23**	**38**	**4.8**	**30**
EU-15	8	13	17	23	38	5.1	30

The Lorenz curve is probably the most popular visual representation of the concentration of income resources. It runs from the individual who has the smallest income to the one who has the largest and cumulates the number of people against the share of total resources owned by them. If incomes were equally distributed the Lorenz curve would correspond to a 45 degree diagonal. The area between the cumulated shares of resources and this diagonal indicates the level of concentration, and its ratio to the total area below the diagonal is numerically expressed as the Gini-coefficient. The Lorenz curves of EU Member States are located between those of Denmark, as the country where resources are most evenly distributed, and Portugal, which is characterized by the highest income inequality (Figure 4.5).

Figure 4.5 Lorenz curves of income concentration, 1997



Having established the aggregate measures of income inequality in EU Member States, we proceed in the next section to take a closer look at low income and the risk of poverty.

4.5. Low income and the risk of poverty

The at-risk-of poverty threshold is a relative measure defined in relation to the median income – as the 70th, 60th or 50th percentage point of the latter. In 1997 almost one quarter of the population of the European Union had an income which was below 70 percent of the median income level. This compared to one in seven and one in ten living in households with an income which was lower than 60 or 50 percent of the median respectively.

Regardless of which threshold is taken to indicate low income/the risk of income poverty, the emerging picture is largely consistent with regard to the ranking of countries. Finland and Denmark display the smallest number of persons at risk of income poverty, whereas Portugal and Greece are the countries with the highest rates. Ireland is an exceptional case, having comparatively high risk-of-poverty rates when the 70 and 60 percent thresholds are used, but below EU-average when the threshold is set at the 50 percent level. This indicates a relatively large concentration of persons within the narrow range between the 50 and 60 percent of median income lines.

Table 4.4 Low income rates for different thresholds, 1997

	low income below .. % of median		
	50	60	70
Belgium	10	15	23
Denmark	4	8	16
Germany	8	15	21
Greece	17	23	29
Spain	14	20	25
France	10	16	24
Ireland	9	20	28
Italy	13	19	27
Luxembourg	6	12	20
Netherlands	6	11	20
Austria	8	13	21
Portugal	15	24	30
Finland	3	8	17
Sweden	5	9	17
United Kingom	16	22	29
Country average	**9**	**15**	**23**
EU-15	11	17	24

Eurostat recommends setting the at-risk-of poverty threshold at 60 percent of the median equivalized income. Following this recommendation, in 1997 the at-risk-of poverty line was lowest in Portugal: there, a person was considered at-risk-of poverty if he or she had less than 3.900 PPS of equivalized income. Half of the EU Member States had a threshold below 7.000 PPS, while the average is 6.900 PPS. The income thresholds in Belgium and Denmark were only slightly above 8.000 PPS. In Luxembourg the at-risk-of poverty line is three times that of Portugal.

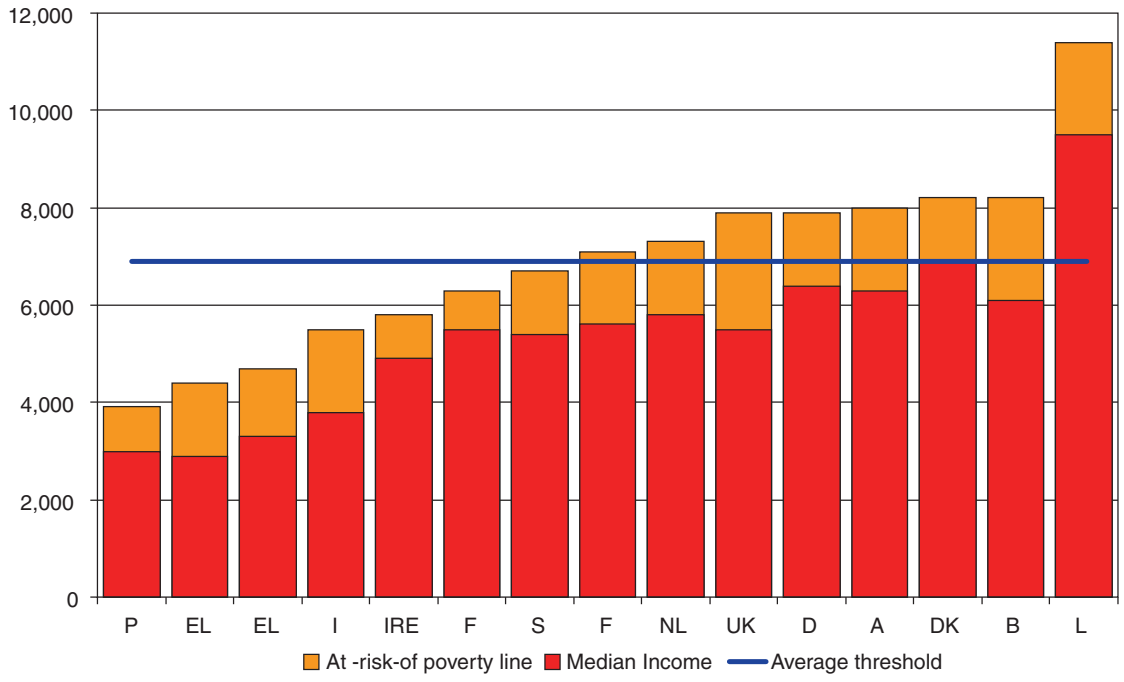
In 1997 more than sixty million EU citizens had an income which was below the national at-risk-of poverty thresholds. This number corresponded to 17 percent of the total population. The at-risk-of poverty rates in the individual Member States range from 24 percent in Portugal to 8 percent in Denmark and Finland.

The at-risk-of poverty rate is a relative measure and in that more sensitive to the level of inequality within a country than to the overall standard of living. The United Kingdom displays one of the highest at-risk-of poverty rates (22 percent) – comparable to that of Portugal – yet has a median equivalized income well above the EU average and twice that of Portugal (see Figure 4.1). Finland, on the other hand, is much more like Portugal with regard to overall prosperity yet has as low a rate of at-risk-of poverty as Denmark.

Risks of income poverty above the EU-average are generally observed in the Southern European and Anglo-Saxon countries: Portugal, Greece, Spain, Italy, United Kingdom, Ireland, and to a lesser extent, France, which is closest to the EU average. The extent of poverty risk was lower in Continental and Scandinavian Member States with Belgium and Germany showing the smallest difference from the EU average.

As can be seen in Figure 4.6, the average income of a person living in a household below the at-risk-of poverty threshold tends to be well below the latter. The at-risk of poverty gap represents the average percentage shortfall from the income threshold that marks poverty risk.

Figure 4.6 At-risk-of poverty threshold and median incomes of the poor 1997, in PPS



In 1997 the median income of those at risk of poverty in the European Union amounted to 78 percent of the at-risk-of poverty threshold. In other words, the at-risk-of poverty gap was 22 percent. The net income required to eliminate poverty risk in all 15 EU Member States for the year 1997 is related to the mean income shortfall and would give a total of 87.5 billion PPS.

Most countries have an at-risk-of poverty gap between 20 and 24 percent, with the Netherlands, France, Austria and Sweden being below the EU average and Portugal above it. As can be seen in Table 4.5 in Belgium, the United Kingdom, Spain and Italy the gap exceeds 26 percent. The highest at-risk-of poverty gap was found in Greece with 33 percent.[24]

The income gap tends to be greater in countries which display above average risks of poverty. This pattern does, however, not hold for all countries. Ireland which was found to have one of the highest risks of poverty in Europe (20 percent at the 60 percent threshold) has, after Finland, the second smallest at-risk-of poverty gap of the EU Member States (19 percent). This suggests that, in terms of income resources, those at risk of poverty in Ireland are concentrated just below the income threshold. Raising the living standards of all the poor Irish to the level of the at-risk-of poverty line would therefore necessitate fewer resources per person than in Belgium, where a relatively smaller proportion of the population is in a more precarious income position.

A large income shortfall against the poverty threshold may either reduce the duration of poverty risk by forcing people to take up work or push persons at risk into resignation. Both effects would be reflected in the number of people who experience long-term poverty risk and exclusion (see Chapter 5).

([24]) Sensitivity tests for the United Kingdom showed that these figures would be somewhat lower if outliers with extreme incomes were excluded. Findings for this country are thus to be interpreted with some caution.

Table 4.5 A profile of poverty in EU Member States

	At-risk-of-poverty line	At-risk-of-poverty rate	Median low income	At-risk-of-poverty gap	Gini of low incomes	Sen Index
Belgium	8,200	15	6,100	26	19	59
Denmark	8,200	8	6,900	16	12	21
Germany	7,900	15	6,400	19	18	48
Greece	4,400	23	2,900	33	20	105
Spain	4,700	20	3,300	29	24	90
France	7,100	16	5,600	21	16	55
Ireland	5,800	20	4,900	15	10	47
Italy	5,500	19	3,800	31	26	91
Luxembourg	11,400	12	9,500	17	14	33
Netherlands	7,300	11	5,800	21	19	39
Austria	8,000	13	6,300	21	15	43
Portugal	3,900	24	3,000	24	20	92
Finland	6,300	8	5,500	12	14	19
Sweden	6,700	9	5,400	20	19	32
United Kingom	7,900	22	5,500	31	19	95
Country average	**6,900**	**15**	**5,400**	**22**	**18**	**58**
EU-15	6,800	17	5,100	25	19	69

The extent and severity of poverty risks are two crucial concerns of social policy but should not distract attention from a third one, namely the level of inequality among those at risk of poverty. A strategy to fight poverty risks could be different if the poverty risks are rather homogeneously distributed rather than a situation where there is a substantial difference between some who are extremely marginalized and others who happen to be only slightly below the at-risk-of poverty line.

Income inequality is considerably lower among those at risk of income poverty than it is in the overall population. For 1997 the average Gini coefficient for persons with low incomes in EU Member States was 18 as compared to 30 for the whole population (see Table 4.5). In Italy and Spain, the Gini coefficient of income concentration was higher than 24, whereas the lowest inequality among those at-risk-of poverty was found in Ireland and Denmark, where the Gini was below 12. Income inequality amongst those at risk of poverty varied in the remaining countries between that of Finland and Greece which had a Gini-coefficient of 14 and 20 respectively.

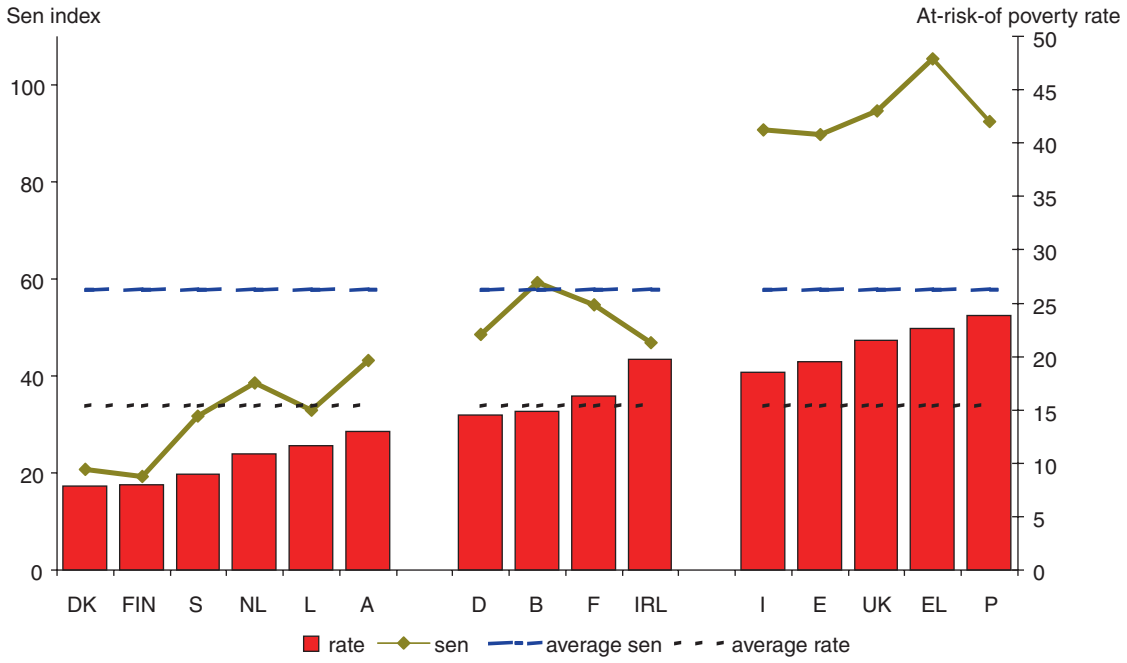
The three measures of poverty risk reviewed above are all important for assessing poverty risks in any particular country and across countries in comparative perspective, as well as for specifying an anti-poverty strategy. Concentrating on any one measure might lead to false or biased conclusions and policies.

The Sen index is an overall measure which combines incidence and intensity of poverty risk and the distribution of income among those at risk. To obtain this measure, the at-risk-of poverty gap and the Gini-coefficient for the poor population, weighted by the at-risk-of poverty gap, are added and then multiplied with the at-risk-of poverty risk rate. The Sen index has the value of 0 if nobody falls below a specified at-risk-of poverty line (i.e. zero poverty risk), and has a maximum value of 1,000 when all individuals have zero income (i.e. all the three factors equal 1.0).[25]

In 1997, the average Sen index for poverty risk in the European Union amounted to 58. The highest value of 105 was found in Greece, while in Finland it was lowest with a value of 19. Scores above 90 were found in the United Kingdom and the Southern European countries, while the Sen measure remained consistently below 40 in the Nordic countries, Luxembourg and the Netherlands. An above average at-risk-of poverty rate in Ireland was partly balanced through the opposite trends with regard to intensity and inequality among the poor. The Sen index in Ireland is thus only 47. Austria, Germany, Belgium and France are close to the EU-average and had values between 43 and 59.

([25]) By its definition the Sen index varies between 0 and 1, for convenience it is here always multiplied by 1.000

Figure 4.7 Sen index and poverty risk in EU, 1997



In summary, our findings on the different indicators of income inequality and risk of poverty give a largely consistent pattern. This can be recognized in Table 4.6 which shows countries in the order of their median income levels. For some countries there are however also noticeable exceptions from the generally observed coincidence of high inequality and high risk of poverty with low prosperity.

Table 4.6 Summary on prosperity, inequality and risk of poverty in Member States compared to the EU-average, 1997

	Prosperity	Inequality			Risk of poverty		
	Median	P90/P10	S80/20	Gini	Rate	Gap	Sen
Luxembourg	++	-	-	o	-	—	—
Denmark	++	—	—	—	—	—	—
Belgium	+	o	+	++	o	+	o
Germany	+	o	o	o	o	-	-
Austria	+	-	—	—	-	o	-
United Kingdom	+	+	++	+	++	++	++
Netherlands	o	-	-	-	—	o	-
France	o	o	o	o	o	o	o
Sweden	o	—	—	—	—	o	—
Finland	o	—	—	—	—	—	—
Ireland	-	o	o	+	++	—	-
Italy	-	+	+	o	+	++	++
Spain	—	++	++	++	++	++	++
Greece	—	++	++	++	++	++	++
Portugal	—	++	++	++	++	o	++

Median: ++ > 120%; + > 110%; - < 90%; — < 80%; P90/P10 ++ > 4.9+ >4.4 - < 3.4 —< 2.9; S80/20, ++ > 5.8; + >5.3; - 4.3 — < 3.8; Gini: ++ > 34; + > 32; - < 28; — < 26; At-risk-of poverty rate: ++ > 19; + >17; - < 13; — < 11; Gap: ++ >26; + > 24; - < 20; — < 18; Sen: ++ >79; + > 69; - < 49; — < 39. Countries ordered by median income level.

Denmark as well as Luxembourg and Austria are characterized by high prosperity, low inequality and low risk of poverty. This is true also for the Netherlands and the Nordic countries, even if prosperity is there somewhat lower. In contrast, all four Southern European countries display a pattern of low prosperity, high inequality and substantial poverty risk. A lower level of prosperity in Ireland is likewise paralleled by an increased poverty risk, however inequality is here less severe. Germany and France are near the (unweighted) EU-average on most dimensions. High levels of inequality and poverty risk in the United Kingdom go hand in hand with the median income level which is well above the EU average. Belgium is also somewhat exceptional as here we can observe an overall high standard of living, yet at the same time comparatively high inequality and an average poverty risk.

4.6. The social profile of economic (dis)advantage

The social profiles of economic advantage and poverty risk are described with reference to a stratification scheme which considers ascribed forms like gender, and sociological variables like class and education. In addition we consider the role of resources like labour market position, and of increased needs deriving from family obligations or household composition.

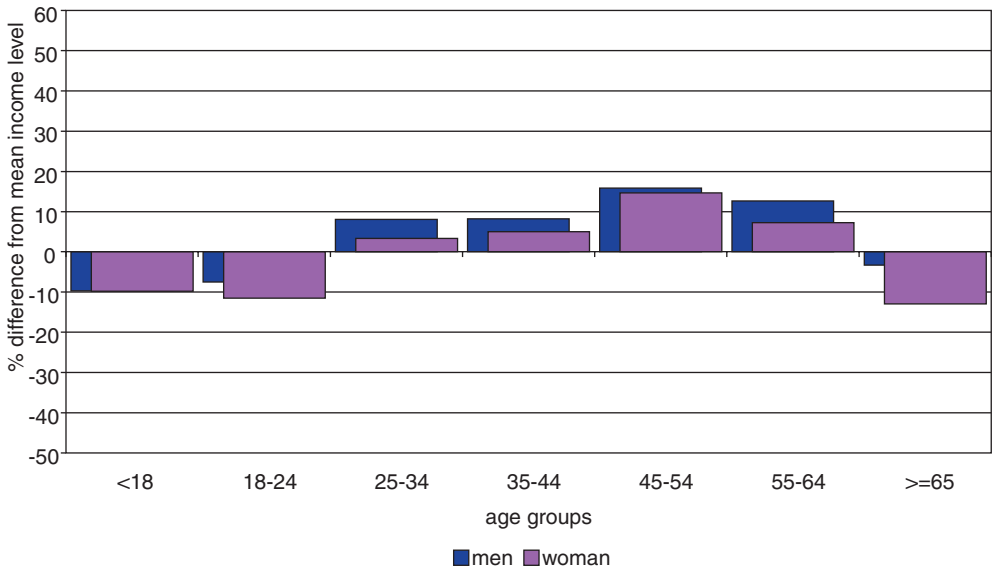
These determinants are not independent from each other but rather closely related. Economic advantage is highest for single men and working age couples without children. It decreases with the number of children, albeit depending on the educational and work attainments of the household. Persons who combine difficult stages in their life cycle with limited earning capabilities due to lack of qualification or child care responsibilities accumulate economic disadvantages. The analysis of comparative (dis)advantages in this section will concentrate on describing characteristic patterns on single dimensions. The interfaces between different dimensions of social position and stages in the life cycle will be more thoroughly discussed in the subsequent chapters that apply longitudinal analysis (Chapters 5 and 7).

4.6.1. The life cycle and its relevance to women

Relative economic (dis)advantages can be compared when the average incomes are related to the average income level. Severe economic disadvantage could be seen to exist when the mean income of a specific group falls considerably below the mean income of the population as a whole.

Persons of working age – between 25 and 64 years old – live in households with an income which lies between five to 14 percent above the national mean and are the least likely to suffer from economic disadvantage. This is true for both men and women, whereas small yet significant differences in favour of men remain across all working age groups.

Figure 4.8 Income differences from the national mean in the life course of men and women, 1997



A considerable gender difference can be observed among people aged 65 and above. Past this age, women's average income tends to drop below the mean level whilst that of men remains above by almost ten percent, which is higher than for men under the age of 25.

Table 4.7 Average incomes related to age and gender, percent of mean

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Gender																
Men	103	101	102	101	101	101	101	101	102	102	102	101	102	101	103	102
Women	96	98	97	98	99	98	98	98	97	98	97	98	98	98	96	98
Age																
<18	84	95	83	99	90	93	89	90	92	85	87	92	96	91	83	90
18-24	92	93	92	92	94	82	94	87	107	80	95	97	86	80	89	91
25-34	106	100	99	110	106	98	115	106	108	104	105	108	97	94	112	105
35-44	95	108	105	114	109	103	108	104	117	103	104	107	106	99	110	106
45-54	115	114	118	112	107	118	110	106	95	115	115	113	115	119	120	113
55-64	127	108	106	97	101	111	109	107	97	115	110	103	106	125	116	109
>=65	93	81	97	76	95	93	86	97	115	99	89	84	88	95	83	91
mean in 1.000 PPS (= 100)	16.6	15.0	14.9	8.6	9.6	13.6	11.7	10.3	22.1	13.7	14.5	8.2	11.7	11.9	14.9	13.1

The gender differences observed above are primarily related to the differences in earnings between men and women. The extent of these differences is best illustrated by looking at single person households.

In 1997, women under the age of 30 and living alone had, on average, an income which was below the national mean by 40 percent and was less than that of their male counterparts by 12 percent. The gap was even greater among single persons over 65, where the gap reached 23 percent.

Figure 4.9 Income differences from the national mean related to gender and age in single person households, 1997

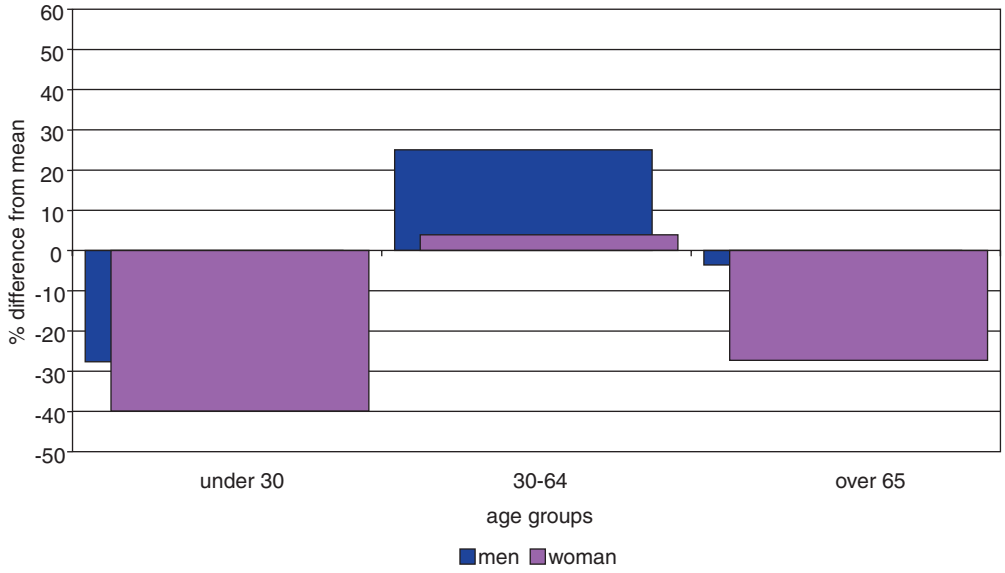


Table 4.8 Mean income of men and women in single person households, percent of national mean, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Single person households																
Male under 30	,	66	78	,	,	80	,	,	,	60	89	,	65	70	73	72
Female under 30	,	56	67	,	,	66	,	,	,	54	(76)	,	57	58	63	60
Male aged 30-64	111	101	116	194	168	107	99	139	,	125	120	134	96	97	126	124
Female aged 30-64	118	85	102	104	128	106	119	104	111	107	101	74	92	97	108	104
Male aged 65 or more	99	83	101	87	101	97	64	100	136	128	99	94	92	89	76	96
Female aged 65 or more	77	74	81	68	75	75	59	80	,	85	77	59	70	77	61	73

The same gap could be observed for single men and women of working age, with the important difference that both men and women of this age group maintained an income well above the median level.

In other words, whilst the gender gap can be said to exist already during working age, in old age it must be qualitatively assessed as more serious as it is also associated with low income and, potentially, poverty.

4.6.2. Educational attainment

Educational attainment is one of the most distinctive elements of economic advantage. Across all EU Member States persons with a high education also have consistently higher incomes.

The importance of education is most notable in Portugal. There, highly educated persons have an average income which is more than two and a half times higher than the national mean. While education does not produce this degree of effect in Ireland, Spain, Luxembourg, Italy and Greece, it remains a very important form of capital. In these countries, high educational attainment guarantees an income which is, on average, two thirds higher than the national mean.

In the Scandinavian countries, on the other hand, the economic advantage of adults with a high education is smaller, yet still roughly one fifth above the mean. Nevertheless, the reader should note that the Nordic countries also have the highest proportion of educated people in their populations.

Figure 4.10 Income differences from the national mean related to education and educational attainment of adult household members, 1997

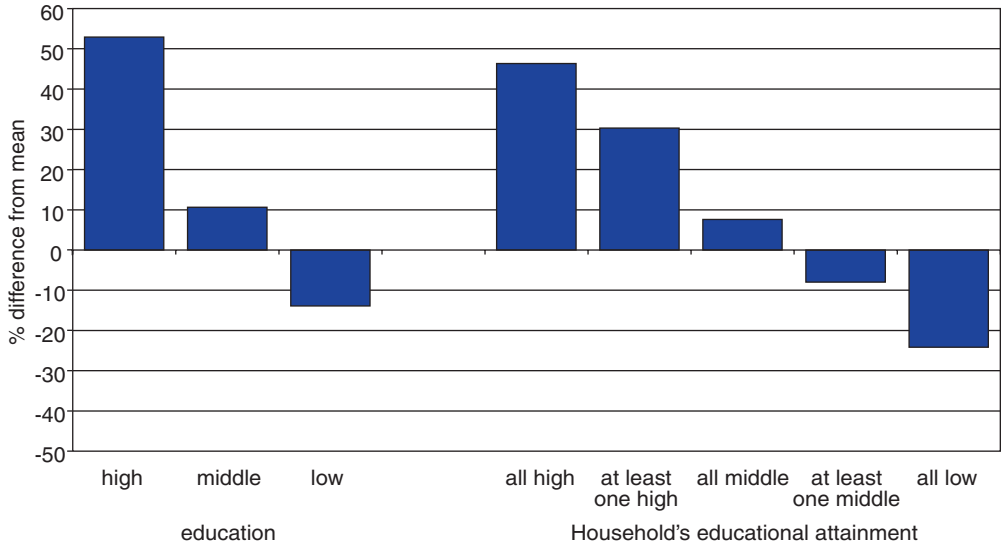


Table 4.9 Mean income by education, percent of national mean, 1997

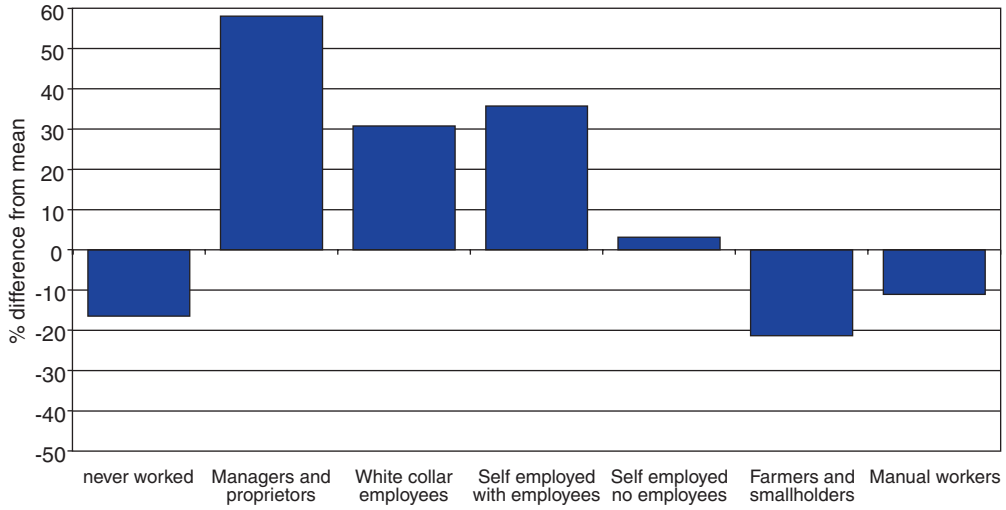
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Education																
high	128	118	134	161	163	149	166	162	193	141	149	259	128	116	125	153
middle	108	100	101	113	121	103	119	119	130	101	108	139	94	101	101	111
low	82	88	85	75	83	85	80	92	100	89	83	84	87	91	87	86
Household's Educational Attainment																
all adults high	122	110	109	177	193	143	172	115	175	134	134	241	133	114	123	146
at least one adult has completed ISDEC 5-7, all others lower	117	111	120	132	135	123	134	142	132	124	139	215	109	112	110	130
all adults middle	99	97	95	112	129	96	122	119	112	94	106	164	87	95	86	108
at least one adult middle	87	92	89	84	90	88	93	100	96	89	91	102	93	98	88	92
all adults low	75	84	72	69	72	74	67	81	73	81	72	76	82	84	75	76

Economic disadvantage tends to accumulate when persons of the same low educational level live together. In 1997 a person living in a household where the collective educational achievement was low could rely on an income which was one quarter below the national mean. In contrast, a person living in a household where all household members had a high education could benefit from almost double the income – the average income of such a person was 46 percent above the national mean.

4.6.3. Social class

Social class is another important sociological variable that influences economic position. To reiterate, in this study social class was operationalized by combining the information on the actual (or past) occupational status of an individual with the incidence or not of executive, managerial or supervisory functions. We may thus distinguish between wage earners or salaried employees and the self-employed, as well as between manual ('blue-collar') and non-manual ('white-collar') workers among the former, and farmers and entrepreneurs among the latter.

Figure 4.11 Income differences from the national mean related to class, 1997



Managers and proprietors are by far the most economically advantaged with an average income which is almost two thirds higher than the mean income level. White-collar salaried employees and other self-employed earn less on average, yet still significantly more than farmers and smallholders or manual workers[26]. National variation follows patterns which are similar to those observed so far.

([26]) Note: there can be particular reporting difficulties associated with the self-employed.

Table 4.10 Mean income and social class, percent of national mean, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Social class																
never worked	82	82	74	83	82	85	70	79	160	78	75	86	72	,	62	84
Managers and proprietors	192	139	82	196	188	133	193	158	130	146	144	231	150	127	162	158
White collar employees	117	105	125	150	157	131	135	138	133	117	122	170	112	,	117	131
Self employed with employees	127	112	211	137	127	90	177	110	171	152	121	129	119	120	135	136
Self employed no employees	113	97	141	108	91	111	107	93	81	122	110	90	94	80	108	103
Farmers and smallholders	65	88	,	61	77	89	93	84	83	101	76	56	89	61	,	79
Manual workers	83	102	91	90	88	86	87	98	83	89	94	84	89	82	87	89

The biggest groups in all EU Member States are manual workers and non-manual salaried employees. The former are significantly more disadvantaged than the latter. On average, manual workers maintain an income which is 50 percent lower than that of non-manual salaried employees. Denmark is exceptional. Here there is almost no income differential between manual workers and salaried employees. At the other extreme, in Portugal, Greece and Spain, salaried employees have an average income which is almost twice that of manual workers.

4.6.4. The experience of unemployment

Unemployment – actual or past – is a major determinant of economic disadvantage. The more intensive the experience of unemployment, the lower the income that may be generated. Those unemployed for at least six months had an average income which was less than the median income level by 32 percent. In comparison, those who had never experienced unemployment could count on an average income which was almost two times higher. Persons who had experienced some unemployment in the last five years had much lower incomes, nevertheless the latter were above the national mean, whereas persons who had experienced some unemployment in the past 12 months were below the mean. Inactive persons and the short-term unemployed all had an average income which was at least 10 percent below the mean.

Table 4.11 Mean income by unemployment experience, percent of national mean, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Employment precarity of individual																
>= 6 months unemployed	65	84	69	71	65	67	58	60	71	,	72	68	78	,	53	68
<6 monts unemployed	93	96	82	99	101	80	81	90	76	83	100	91	90	76	96	89
exp. unempl last 12 months	89	95	81	77	81	78	75	80	98	,	91	82	87	,	87	85
exp. unempl in past 5 years	98	108	101	108	111	100	115	114	117	102	101	93	106	98	112	106
Never unemployed	118	117	117	122	132	118	129	123	92	121	115	114	124	117	122	119
Inactive	98	83	94	84	91	91	86	94	88	93	92	87	86	89	87	89

4.6.5. Work intensity

Another important indicator of labour market integration is the work intensity of a household, that is the extent and degree to which adult household members are active in the labour market. A household is said to have the highest possible work intensity if all household members of working age work throughout the year. Zero work intensity means that none of the household members of working age worked during any month during the year.

Table 4.12 Mean income by work intensity, percent of national mean, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Work intensity in household																
none	78	76	73	79	65	73	51	78	72	,	77	76	75	,	63	72
<25%	61	66	60	68	61	60	60	53	52	,	79	64	75	,	47	62
25-50%	100	82	84	78	90	72	81	81	94	,	85	84	84	,	81	84
50-75%	104	102	92	95	97	96	102	97	94	,	95	95	99	,	93	97
75-100%	109	109	100	103	119	94	113	119	80	,	104	103	110	,	113	106
full	113	112	119	139	160	121	145	142	124	,	117	117	124	,	122	127

In 1997 persons in households with full work intensity were rewarded with an average income which amounted to 127 percent of the mean, while members of households with marginal or no[27] work intensity had to live with an average income which only amounted to between 62 and 72 percent of the national mean.

4.6.6. Parental duties as an indicator of increased needs

The presence of children in a household increases needs, as children are additional household members, albeit dependent, but also because parental duties may influence the earning capability of a household – in particular of women.

Table 4.13 Mean income for households with more than one adult, in percent of national mean, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU15
Adults without children																
2 adults, at least one >= 65	102	86	106	78	97	102	96	101	97	104	95	91	97	107	96	97
2 adults <65	128	121	126	119	121	124	146	131	131	130	132	125	117	129	139	128
> 2 adults	118	116	108	109	110	102	125	113	109	105	111	105	112	,	118	111
Households with children																
Single parents with 1+ child	64	82	68	99	97	71	62	80	76	59	72	77	81	81	51	75
2 adults + 1 child	102	116	106	118	111	109	117	110	104	107	106	114	110	110	107	110
2 adults + 2 children	92	102	87	109	100	108	107	91	96	88	93	122	105	98	99	100
2 adults + 3+ children	74	79	67	95	90	82	90	73	80	81	72	73	90	85	72	80
> 2 adults with children	95	97	90	71	86	76	82	82	79	79	88	80	97	,	90	85

In 1997 persons who lived together with one or two children had lower average incomes than single persons or couples without children below the age of 65, yet were still near the national mean. With only one child a family could receive 110 percent of the mean income while the average income of families with two children was identical to the mean. The arrival of a third child leads to a dramatic drop of average incomes to below 80 percent of the mean level. Single parent households are similarly disadvantaged, regardless of the number of children.

4.7. The social profile of income poverty risk

Economic disadvantage leads to an increased risk of falling below the at-risk-of poverty threshold (defined as the 60 percent level of the median equivalised income). Persons whose equivalized income falls below this threshold are defined as being at–risk-of poverty, while those with income at or above this are termed 'non-poor'.

In this section the relative poverty risks of different groups are compared. This is done through the relative poverty risk index which relates the proportion of persons at risk in any particular group to the national poverty risk which is set at 100. A relative poverty risk index for a particular group which is above 100 indicates that the risk of becoming poor of that particular group is higher than the average.

([27]) Note that the group of persons with no work intensity includes both voluntary (eg. pensioners) and involuntary (eg. unemployed) whose income situations may differ.

Tables 4.14 and 4.15 summarize the main findings for all EU Member States with reference to individual and household characteristics. We can note the following:

Women face a somewhat higher risk of poverty than men

In 1997 this was true for all countries except for France and Luxembourg, where men and women had exactly the same risk to fall below the poverty line, and Sweden where women had a slightly lower poverty risk than men. On average the ratio to the overall poverty rate was 105 percent for women and only 95 percent for men.

Children and the elderly are more threatened by poverty

In 1997 children and young people as well as persons of retirement age had poverty risks which were approximately 25 percent higher than the average, while for the working age population the poverty risk amounted to between 75 to 86 percent of the national average.

Notably lower risks of poverty were faced by children in the Scandinavian countries – both compared to the rest of the population in their own country and children in other EU Member States. In Denmark, Sweden and Finland the poverty risk of children ranges between 40 and 98 percent of the national average.

Elderly people in Denmark were not as fortunate. Their poverty risk was more than two times higher than the national average in 1997. The lowest relative poverty risk indices for persons of retirement age were found in Spain, Italy, Luxembourg and Sweden, where they remain below 81 percent of the national poverty risk.

Table 4.14 Poverty risk by individual social position

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	average
Gender																
Men	89	93	90	99	98	97	95	98	101	96	88	92	97	101	88	95
Women	111	106	109	101	102	103	105	102	99	104	111	108	102	99	111	105
Age																
<18	112	40	165	95	130	123	139	120	154	135	115	128	76	98	138	122
18-24	141	217	103	98	112	161	92	140	132	247	88	74	260	318	126	136
25-34	50	86	84	76	87	76	50	95	76	102	77	65	105	128	76	79
35-44	66	28	74	67	99	69	92	93	74	77	78	80	79	74	71	77
45-54	101	39	54	82	92	74	88	90	84	59	70	74	81	56	49	75
55-64	96	73	103	117	94	96	70	89	95	59	87	97	63	48	59	86
>=65	143	277	97	159	77	110	117	81	74	39	166	157	105	67	145	121
Citizenship																
EU-citizenship	87	119	78	102	93	83	82	94	83	84	94	93	106	97	87	91
foreign citizenship	219	53	156	(116)	(179)	337	,	(37)	169	(258)	193	,	384	309	165	182
Education																
high	39	41	38	22	33	28	11	22	30	27	57	6	48	133	50	34
middle	63	109	73	55	57	61	48	55	43	86	70	47	130	85	78	65
low	142	185	114	145	115	127	123	111	114	107	154	106	126	105	122	125
Social class																
never worked	220	289	198	114	143	179	159	161	143	233	211	145	294	,	232	187
Managers and proprietors	22	14	,	17	18	23	5	19	,	7	15	8	12	,	5	14
White collar employees	26	76	33	15	21	27	24	17	28	54	41	16	74	,	47	32
Self employed with employees	89	140	,	54	74	142	56	99	111	243	,	63	98	84	55	94
Self employed no employees	100	91	62	89	132	132	93	153	,	128	171	120	161	337	100	127
Farmers and smallholders	(304)	353	,	225	153	157	73	154	,	173	234	210	178	494	,	197
Manual workers	84	77	74	89	93	87	99	83	112	103	81	74	115	331	103	99
Employment precarity of individual																
>= 6 months unemployed	216	19	276	165	194	256	232	277	666	,	289	146	219	,	252	233
<6 monts unemployed	108	148	116	99	95	154	73	112	183	175	88	93	208	231	133	122
experience of unemployment last 12 months	125	63	155	154	144	132	139	177	107	,	88	99	99	,	143	143
experience of unemployment in past 5 years	32	59	55	52	71	71	42	69	110	85	73	65	48	77	38	61
Never unemployed	26	44	34	62	47	37	32	53	54	34	56	66	39	55	33	46
Inactive	135	239	117	132	100	127	119	98	108	108	140	136	146	152	142	129
national average (= 100)	**15**	**8**	**15**	**23**	**20**	**16**	**20**	**19**	**12**	**11**	**13**	**24**	**8**	**9**	**22**	15

Migrants face high risks to be trapped in poverty

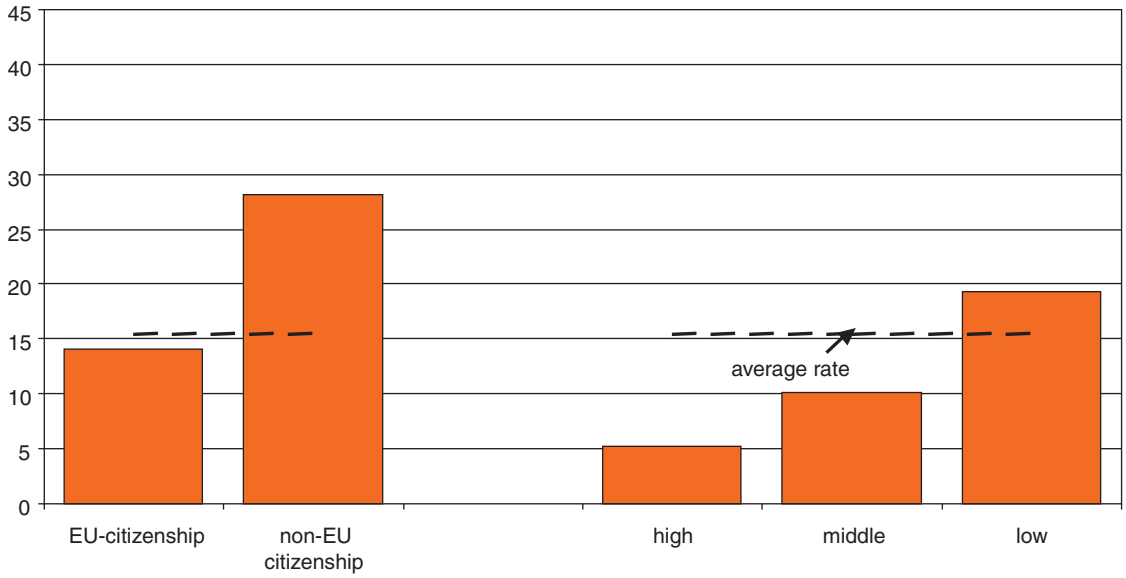
Even though the data must be treated with caution due to small samples (foreign nationals may be under-represented in ECHP samples for many countries), the existing evidence seems quite unambiguous. Residents of EU Member States without a European citizenship run a high risk of being poor. In some countries – notably France, Finland and Sweden – they are three to four times more likely to have an income below the at-risk-of poverty threshold. In most other countries, their risk of becoming poor is twice that of any EU citizen.

Education protects against poverty

In 1997 the risk of poverty rate among persons with a high level of education was only one third the average. For persons with a low educational attainment, the poverty risk was four times higher and the poverty index amounted to 125. Only in Sweden was there practically no difference between the poverty risks of people with low and high levels of completed education.

Interestingly, in Denmark the low educated had a poverty index of 185, which was more than four times as high than the poverty risk for highly educated persons. This is despite the fact that, on average, low educated persons in Denmark earn only one third less than highly educated persons.[28]

Figure 4.12 Poverty risks related to citizenship and level of educational attainment, 1997



With the exceptions of Germany, Sweden and Italy, cumulative high educational attainment in a household is associated with lower than average poverty risk. The opposite is true for cumulative low educational attainment. A person living in a household where all members have little education is more than twice as likely to become poor than a person living in a household where all members have high educational attainment.

Social class is still relevant

In line with the findings of the previous section, we find that farmers and smallholders run a particularly high risk of poverty, displaying an average relative poverty risk index of 197, which is only slightly higher than that of persons who were never economically active (187). Being self-employed or running a small business with no employees is likewise associated with a higher than average risk of becoming poor.

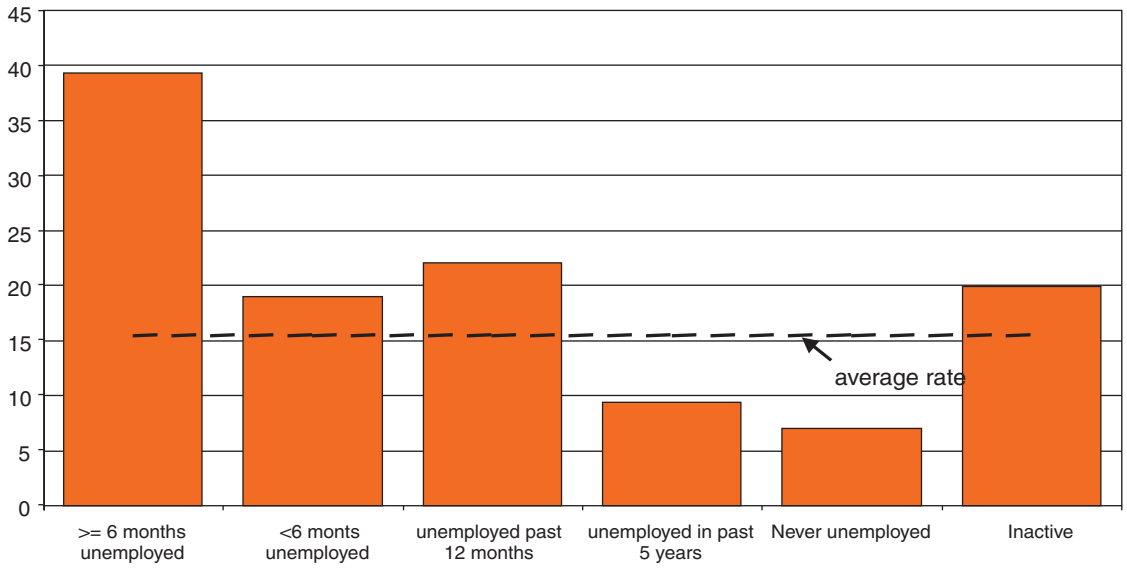
([28]) The differences in the poverty risk of persons with a low educational achievement in Denmark and Sweden caution against attributing the country differences with regard to this variable to the differences in the proportions of persons with a high education across different societies. See also section 4.6.2

All other classes display lower than average poverty risks. Manual workers are on average three times more likely than white collar employees to become poor – the exception is Denmark where both groups display similar risks.

Experience of unemployment is by far the most important determinant of poverty risk

The risk of poverty increases when a person is currently unemployed or when he or she has experienced unemployment in the past five years. In the year 1997, those who had been unemployed more than half a year had an average relative poverty risk index of 233. In comparison, persons who had not had any unemployment experience in the past five years had a relative poverty risk index of 46. When unemployment could be overcome for at least 12 months the poverty risk was already far below the average, but still significantly higher than for persons who had never been unemployed.

Figure 4.13 Poverty risk related to unemployment, 1997

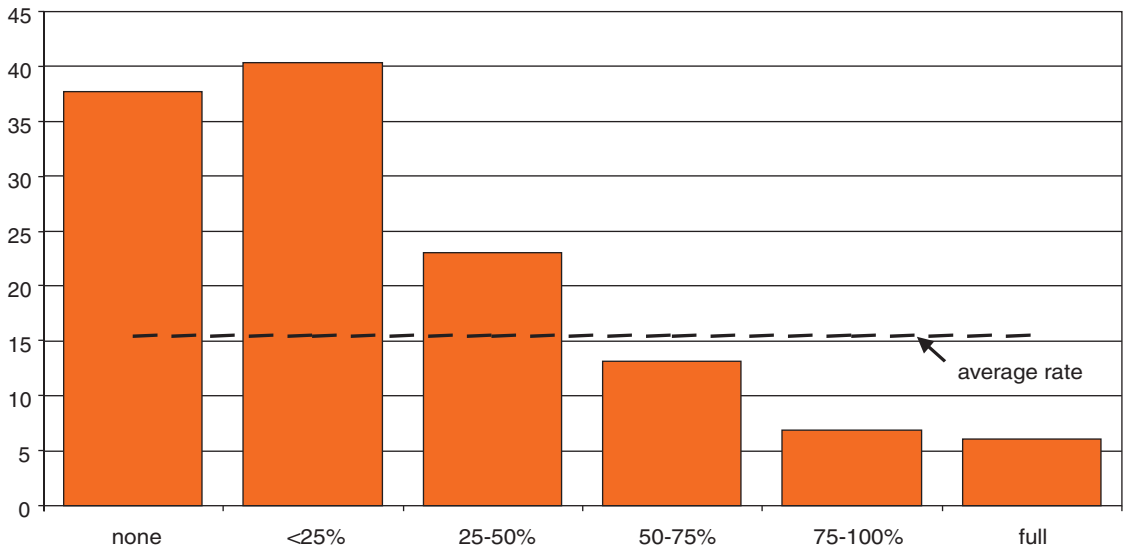


Persons who experience unemployment for less than 6 months or who have just re-entered the labour market were still significantly above the average, though their situation is distinct from that of the long-term unemployed. Nevertheless these findings show that poverty reduction after re-integration into the labour market following a spell of unemployment – however short – is not easy.

The household context with regard to work intensity is important

The degree of attachment to the labour market is the most crucial and also most evident potential source of economic disadvantage and poverty. When no household member of working age is economically active, the poverty risk is particularly high. In 1997, the average poverty risk of persons in households with no or only marginal economic activity was near to three times above the average risk. When at least 50 percent of the work potential was used for work, the poverty risk dropped to just below the average, whereas full or near to full employment of all household members of working age reduced the relative poverty risk index to about 39.

Figure 4.14 Poverty risks related to work intensity in the household, 1997

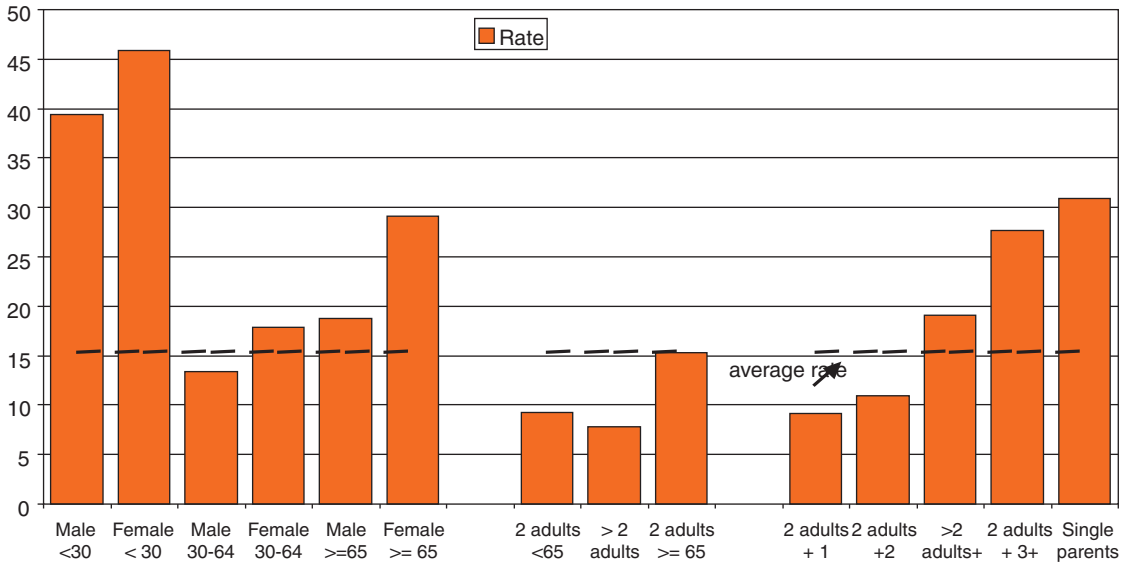


In most EU countries, the relative poverty risk is higher when work attachment is marginal rather than entirely absent. This finding is most likely due to the fact that the latter group is dominated by pensioner households.

Single and elderly households accumulate deprivation risk, but variably

Single person households, especially those of people under 30 or aged 65 or more display a higher than average relative poverty risk, however the poverty risks differ significantly between countries. In Denmark, Finland, Sweden and the Netherlands the poverty risks for young singles were several times higher than the national average. This is not the case in Spain, however, where the poverty risks of single persons who are not young and female was generally below average.[29]

Figure 4.15 Poverty risks in different household contexts, 1997



(29) Two notes of caution are here due: First, the poverty risk of young singles is qualitatively different than that of elderly singles: whilst young singles have their life (and working career) ahead of them, the opposite is true for elderly singles. Second, cultural variation with regard to support provided to young singles (for instance through transfers-in-kind or payments of food and rent) might account for the country differentials in the poverty risks.

A household type which is of increasing demographic importance consists of two adults where at least one member is above retirement age. With the exception of Denmark, this group has above average incomes, but their at-risk-of poverty rate is almost identical to the national average. These households have a higher relative poverty risk index than two adults of working age living together with one or two dependent children. For larger families with three or more children, the average poverty index jumps to 179 and is significantly lower only in the Nordic countries and in Greece.

Table 4.15 Poverty risk by the social position of the household

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	average
Single person households																
Male under 30	,	514	234	,	,	167	,	,	,	496	227	,	586	421	214	255
Male aged 30-64	75	106	108	26	79	82	169	74	54	26	123	105	163	125	42	86
Male aged 65 or more	,	299	76	,	,	132	173	88	,	18	73	176	119	101	187	121
Female under 30	193	709	248	134	252	232	,	,	,	539	(191)	,	526	524	202	297
Female aged 30-64	128	138	151	103	77	65	136	101	142	61	172	139	132	89	119	116
Female aged 65 or more	165	340	184	182	47	171	333	130	133	49	279	222	236	107	244	189
Adults without children																
2 adults, at least one >= 65	132	217	54	160	93	86	42	69	74	33	139	166	32	40	88	99
2 adults <65	63	29	55	77	77	61	40	54	73	52	41	88	85	59	33	60
> 2 adults	44	36	32	69	65	61	15	75	20	50	48	57	70	,	34	51
Households with children																
Single parents with 1+ child	203	109	326	104	152	202	208	134	227	403	213	170	114	137	307	200
2 adults + 1 child	42	0	56	57	75	47	70	76	67	66	87	49	53	60	61	60
2 adults + 2 children	81	37	74	63	107	52	59	109	79	65	58	55	52	54	81	71
2 adults + 3+ children	132	72	375	116	168	190	189	163	193	165	187	244	99	121	166	179
> 2 adults with children	155	3	67	164	126	190	97	153	144	146	96	119	56	,	75	124
Household's Educational Attainment																
all adults high	73	57	165	18	19	50	24	111	40	56	93	21	47	135	68	60
at least one adult high	39	29	24	38	48	49	16	25	35	18	40	6	46	68	56	34
all adults middle	76	132	98	48	45	64	67	53	43	114	75	32	156	93	149	76
at least one adult middle	77	70	49	104	86	87	70	85	53	100	92	88	78	53	77	80
all adults low	191	235	199	166	144	188	189	140	178	171	226	119	148	140	168	169
Work intensity in household																
none	259	178	275	160	227	269	327	169	263	,	237	197	235	,	233	244
<25%	288	260	316	197	171	252	167	343	(626)	,	247	153	219	,	340	261
25-50%	63	215	189	168	121	182	102	145	64	,	128	125	167	,	189	150
50-75%	53	57	113	75	77	103	58	83	87	,	70	109	46	,	83	85
75-100%	12	6	36	58	31	85	23	48	,	,	64	31	36	,	46	44
full	20	39	25	55	25	25	13	27	57	,	58	69	37	,	33	39
national average (= 100)	**15**	**8**	**15**	**23**	**20**	**16**	**20**	**19**	**12**	**11**	**13**	**24**	**8**	**9**	**22**	**15**

4.8. Investigating the degree of poverty – the 'fuzzy set' approach

In the previous section, risk groups in the population were identified with reference to the at-risk-of poverty threshold. Further insight into the relative income situations of individuals and groups can be obtained by incorporating into the statistics a measure of the actual levels of incomes received, particularly by groups at the lower end of the income distribution. Supplementary measures such as the at-risk-of Poverty Gap, the Gini Coefficient or the Sen Index, explored in the preceding sections, serve this purpose.

This section describes how some of these aspects can be incorporated into a single measure of the degree and extent of income poverty of individuals and subgroups in the population using the so-called 'fuzzy set' approach. This approach was outlined in Chapter 3 and is described in detail in the Methodological Annex 1. Here suffice to reiterate that this alternative measure assesses the degree of, or propensity to, income poverty as a function of the individual's position in the income distribution. This propensity is defined to be in the range 1 (the poorest) to 0 (the richest). The 'population' of the poor is therefore defined less strictly and comprises in principle the whole population, but each individual only to a degree.

The social and demographic differentials of poverty risks using this alternative measure within EU-Member States are presented in Tables 4.16 and 4.17. As in the previous sections, the relative position of a particular

group is described by an index which relates the group's average to the national average. While 100 marks the national average, a value above 100 indicates that a particular group is subject to a higher level and degree of poverty than the population as whole. Similarly values below 100 are typical for groups which are relatively advantaged.

Table 4.16 Relative fuzzy poverty risk by individual social position, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	average
Gender																
Men	90	92	89	99	98	97	96	98	97	94	89	93	96	99	91	95
Women	109	107	110	101	102	103	104	102	103	105	110	106	104	101	109	105
Age																
<18	114	59	146	98	130	118	129	121	147	128	120	122	80	100	135	120
18-24	137	189	106	98	111	158	93	133	124	215	92	80	231	285	126	131
25-34	58	88	83	78	89	77	59	95	80	93	78	73	100	123	76	81
35-44	73	47	84	72	98	75	94	94	74	80	83	84	80	81	79	82
45-54	92	37	58	84	90	73	84	91	81	61	69	77	76	55	58	75
55-64	97	81	103	112	93	95	80	85	100	64	89	103	73	44	63	88
>=65	134	242	107	151	79	115	124	85	82	75	151	143	118	82	132	121
Adult/child status																
adult	93	112	89	101	93	93	87	94	87	90	96	95	108	103	89	94
dependent child	117	59	144	97	121	118	128	120	131	129	116	110	76	95	138	116
Citizenship																
EU-citizenship	91	111	86	101	95	90	90	96	86	88	92	94	103	97	89	93
foreign citizenship	211	146	145	133	163	299	19	77	144	300	182	103	386	295	164	165
Social class																
never worked	177	174	171	110	125	157	158	146	119	208	152	110	177		183	154
Managers and proprietors	23	38	248	12	26	41	11	24	2	11	20	15	12		54	39
White collar employees	32	80	37	20	25	33	29	23	28	53	43	20	64		53	36
Self employed with employees	97	130	95	58	80	138	50	101	108	150	125	67	108	80	58	89
Self employed no employees	96	101	64	86	130	129	92	144	179	120	149	110	156	309	98	122
Farmers and smallholders	257	357		207	145	149	86	153	183	174	217	197	172	460	203	197
Manual workers	97	77	83	94	92	94	102	83	115	102	85	84	119	300	105	102
Employment precarity of individual																
>= 6 months unemployed	197	84	239	159	186	233	213	248	490		244	158	200		224	229
<6 monts unemployed	136	131	129	93	89	152	90	121	196	169	95	94	191	224	131	126
experience of unemployment last 12 months	120	89	142	143	135	135	139	167	115		96	102	119		136	136
experience of unemployment in past 5 years	46	58	66	59	72	69	45	68	108	74	73	72	57	78	51	65
Never unemployed	33	38	42	66	52	46	39	56	60	38	58	71	38	52	42	51
Inactive	132	213	122	123	101	127	124	101	105	121	128	121	136	154	133	125
national average (= 100)	15	8	15	23	20	16	20	19	12	11	13	24	8	9	22	15

Table 4.17 Relative fuzzy poverty risk by social position of the household, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	average
Single person households																
Male under 30	130	472	202	125	35	174	77	124	1	422	187	176	495	375	197	179
Male aged 30-64	66	103	102	33	74	87	132	74	62	36	95	110	188	127	44	84
Male aged 65 or more	137	268	75	118	60	130	168	83	42	46	64	165	125	108	160	117
Female under 30	178	613	227	117	238	227	93	75	223	435	192	28	527	483	199	208
Female aged 30-64	127	152	136	107	82	61	106	91	122	77	147	155	132	86	112	112
Female aged 65 or more	155	292	186	174	104	165	246	122	152	97	236	209	236	152	200	179
Adults without children																
2 adults, at least one >= 65	119	198	70	149	78	95	91	78	77	66	132	142	54	40	92	101
2 adults <65	64	39	57	79	75	60	51	56	68	50	48	91	74	56	38	62
> 2 adults	52	26	43	69	65	70	35	74	24	49	52	68	65		49	57
Households with children																
Single parents with 1+ child	194	125	302	118	145	186	211	132	204	346	206	166	99	149	270	190
2 adults + 1 child	51	13	67	59	81	55	73	80	60	65	78	58	51	58	68	64
2 adults + 2 children	79	43	99	72	102	58	65	112	81	77	76	73	50	56	89	78
2 adults + 3+ children	148	116	267	117	156	171	167	156	183	153	200	211	105	118	158	165
> 2 adults with children	145	10	69	155	130	178	95	145	156	135	100	110	66		88	122
Household's Educational Attainment																
all adults high	69	74	134	17	16	52	32	107	41	57	79	22	43	124	69	57
at least one adult high	41	36	34	42	49	41	21	33	26	27	33	6	45	58	62	36
all adults middle	90	135	103	63	59	71	68	57	42	113	78	29	148	94	144	80
at least one adult middle	80	71	72	107	89	98	80	85	75	99	98	72	81	69	87	85
all adults low	183	205	191	157	142	177	176	138	168	166	208	123	158	146	158	163
Work intensity in household																
none	240	228	260	150	202	235	287	161	220		226	182	216		219	225
<25%	262	335	294	179	181	257	180	305	494		193	173	203		292	259
25-50%	73	181	146	155	118	177	109	141	82		125	124	154		172	142
50-75%	59	67	103	85	83	104	65	90	89		83	106	51		90	90
75-100%	25	8	55	61	39	79	32	48	100		67	46	36		61	54
full	27	34	37	54	25	35	21	27	52		58	72	44		43	43
national average (= 100)	**15**	**8**	**15**	**23**	**20**	**16**	**20**	**19**	**12**	**11**	**13**	**24**	**8**	**9**	**22**	**15**

It is recognizable that the relative poverty risk index of women in the year 1997 amounted to 105, and is hence 10 percent higher than for men, whose poverty risk index took a value of 95. There is a 'U-shaped' variation by age: the relative poverty rates being around 131 for young persons under 25, compared with roughly 80 for persons aged 25-54, and near the overall average 100 for those aged 55 or older.

Women living alone are much more likely to be at risk of income poverty than men living alone: the gender gap increases with age from 10 to 40 percent. Single parent households and households with many (3 or more) dependent children are three times as likely to be at risk of poverty, compared with households of couples (both partners under 65) with no children.

There are some significant departures from the above overall pattern in particular countries. Among persons aged 30-64 living alone, for instance, the situation of women is in fact more favourable than that of men in Sweden, Finland, France and Ireland. The relative situation of households with many children is most favourable in the Nordic countries: Denmark, Finland and Sweden. The situation of families is less favourable but still much better than the European average in Greece and the Netherlands, but it is notably worse than the average in Germany, Portugal, Austria and Luxembourg. In Germany and the United Kingdom, single parent households are five times as likely to be at risk of poverty compared with households of couples with no children.

There are also sharp differentials by citizenship, level of education, social class, activity status, and especially by unemployment experience. In many of the above target groups, the results turns out to be quite similar to those found when a discrete definition of poverty is employed.

4.9. Conclusions

Our findings on the income levels and income distribution in EU Member States show that despite the overall high level of prosperity in the European Union, significant differences between but also within countries remain. Furthermore, an increase of overall prosperity between 1994 and 1997 did not always lead to a reduction of inequalities within Member States. Indeed, there was an increase of the share of persons displaying low incomes in four countries, the United Kingdom, Ireland, the Netherlands and Portugal. This finding is particularly noteworthy in the case of the United Kingdom and Ireland which both experienced a remarkable improvement of overall income levels between 1994 and 1997.

Generally, however, and at any particular point in time, the countries with high overall prosperity and at the same time a high degree of inequality are in the minority. In 1997 there were only two, namely, Belgium and the United Kingdom. Finland and Sweden are opposite examples: they display the most egalitarian income distributions in Europe but without a particularly high income level.

The above patterns are enhanced with regard to the risk of poverty. In 1997, 17 percent of European citizens lived at risk of poverty. The risk of poverty rate is lowest in Denmark with 8 percent and highest in Portugal with 24 percent. Denmark and Portugal are examples of the general disparities in the social situation found between the Nordic and the Southern European countries.

The examination of the social patterns of inequalities within countries revealed that women are most affected by economic disadvantage and the risk of poverty, most strikingly so at specific stages of the life cycle. Young persons and children are generally disadvantaged compared to persons of working age. Incomes are lower at retirement age and the risk of poverty is hence higher, especially among older women living alone.

Low educational attainment, less favourable employment positions and the experience of unemployment all function as major pathways into poverty. Having three or more dependent children is likewise associated with a higher than average risk of poverty. Single parent households with only one child (as well as those with more children) experience a similar situation.

Young single adults, the long-term unemployed and persons in households in which no person of working age works face the most serious situation. Our analysis has also revealed a particularly high risk of poverty among migrants.

5. The Dynamics of Income Poverty Risk

The effect of poverty on a person or a household is directly related to the period that they are poor. If people's experience of marginality and want is only temporary, their life-chances will probably not be seriously impaired. A persistent risk of poverty, on the other hand, is more likely to be associated with the erosion of resources and a qualitatively different experience of deprivation.

In this chapter we take advantage of the availability of four waves of data from the European Community Household Panel Survey to examine the dynamics of income poverty between 1993 and 1996 across a large number of EU Member States. We seek to answer three important questions: First, does relative income poverty tend to be persistent, or is it more transitory phenomenon? Second, to what extent is the degree of permanence affected by the income at-risk-of poverty threshold used? Thirdly, what individual and household characteristics are associated with the experience of persistent poverty risk and what situations are more likely to precipitate a fall into poverty or movement out of poverty?

The questions outlined above direct our attention to the all-important issue of the underlying causes of poverty and whether income poverty is the result of passing circumstances or more intransigent structural features. If cross-sectional at-risk-of poverty figures represent different individuals experiencing short spells in a state of poverty risk this has very different implications for social policy to the situation where the same individuals are persistently at risk of poverty. However, we can only know which of these scenarios is true by analyzing longitudinal data and following the same individuals through time.

5.1. Longitudinal compared to cross-sectional measures

Table 5.1 compares the relative at-risk-of poverty rate over the years 1994 to 1997 using different thresholds, to the proportion experiencing income poverty risk in one or more years from 1994-7, again for each at-risk-of poverty line.[30]

Table 5.1: Mean at-risk-of poverty rate (A), proportion experiencing 1+ years risk of poverty 1994-7 (B) and ratio (B/A)

	50			60			70		
	A	B	Ratio	A	B	Ratio	A	B	Ratio
Belgium	10	21	2.1	16	33	2.0	25	42	1.7
Denmark	4	8	2.0	10	19	1.9	17	31	1.8
Germany	10	16	1.6	16	24	1.5	23	32	1.4
Greece	16	30	1.9	22	38	1.7	29	46	1.6
Spain	13	28	2.2	20	37	1.9	26	46	1.7
France	10	18	1.8	17	26	1.6	25	36	1.5
Ireland	8	20	2.4	19	32	1.7	29	43	1.5
Italy	13	25	1.9	19	34	1.7	27	43	1.6
Luxembourg [1]	7	13	1.9	13	22	1.7	22	33	1.5
Netherlands	7	14	2.1	11	20	1.8	20	33	1.6
Austria [2]	7	15	2.0	14	24	1.7	22	34	1.6
Portugal	16	28	1.7	23	38	1.6	29	44	1.5
Finland [3]	3	5	1.5	8	10	1.2	16	16	1.0
United-Kingdom	14	25	1.8	21	33	1.6	28	42	1.5
Country average [4]	11	21	1.9	17	30	1.7	25	39	1.6

1 Figures for Luxembourg refer to 1994, 5 & 6 only.
2 Figures for Austria refer to 1995, 6 & 7 only.
3 Figures for Finland refer to 1996 & 7 only.
4 Figures are purely indicative & not weighted to population size. L, A and FIN are excluded.

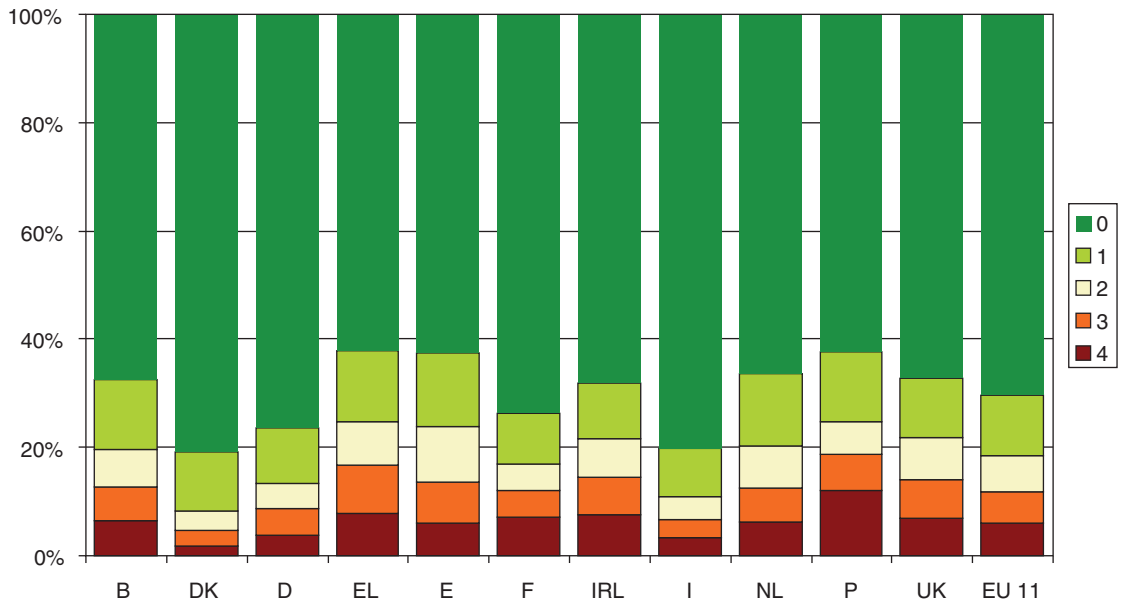
([30]) The cross-sectional rates within countries change between 1994 and 1997 but the use of the mean does not significantly alter the patterns observed.

In all cases the cross-sectional at-risk-of poverty rate is significantly lower than the proportion experiencing a year in poverty risk between 1994 and 1997. The last column for each at-risk-of poverty line shows the ratio between the longitudinal and cross-sectional measures. Across all countries, the ratio is higher the lower the median income at-risk-of poverty line used. That is, the proportion of people who experienced poverty risk for one year over the four years is higher than the proportion experiencing poverty risk in any one year, but this difference becomes smaller the more generous the at-risk-of poverty line. However, the ratio varies a great deal between countries with Ireland having a longitudinal rate at the 50 percent line nearly two and a half times higher than the cross-sectional rate, whereas for Germany, the ratio is just 1.6. The higher proportions experiencing poverty risk using the longitudinal rate shows that poverty risk affects a larger proportion of the population than the cross-sectional measure would suggest.

5.2. The persistence of poverty risk

If poverty risk is a more common experience than the cross-sectional rate would suggest, does this mean that it is not a permanent condition and is spread evenly across the population? We can examine this question in Figures 5.1A and B which show the proportions experiencing different numbers of years under the 60 and 70 percent income at-risk-of poverty line in different countries over the period.[31]

Figure 5.1A: Proportions experiencing N years under the at-risk-of poverty line (60% of median income)



(31) As we are looking at the total number of years in a state of poverty risk over the four years we are also forced to drop Finland, Austria and Luxembourg from the sample for these analyses as data for these countries is only available for a limited number of years. See section 5.3

Figure 5.1B: Proportions experiencing N years under the at-risk-of poverty line (70% of median income)

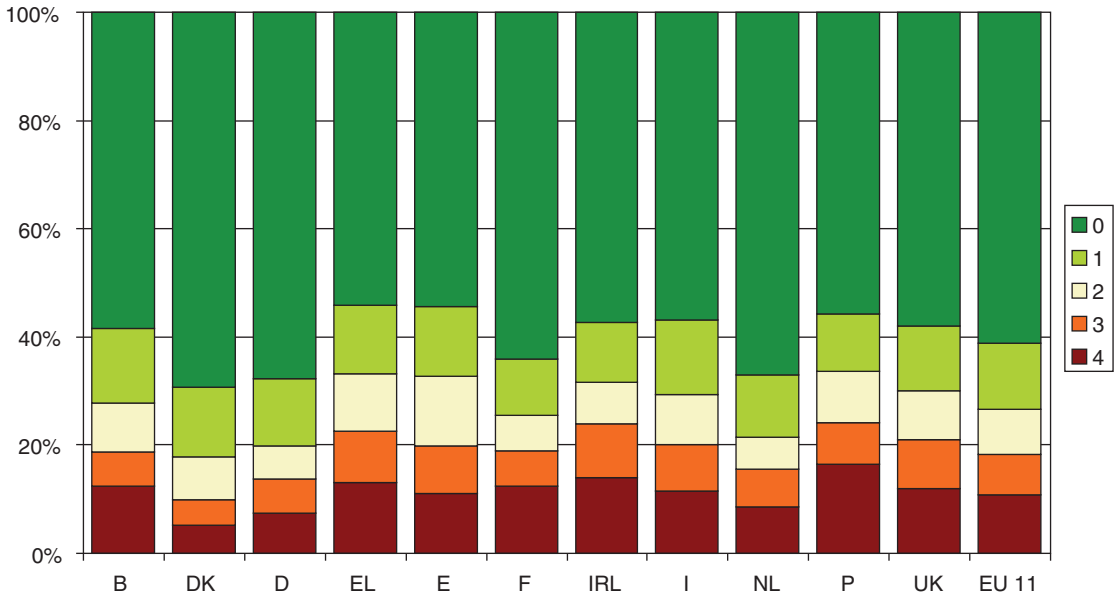


Figure 5.1A shows that the majority of people avoid poverty risk completely during the period. More interestingly however, the numbers 'trapped' in a persistent risk of poverty over all four years range from just under 1 in 25 in Denmark to around 1 in 8 in Portugal. Aside from Portugal, Greece and Ireland have the highest rates of persistent poverty risk with eight percent.

We see roughly the same patterns if we apply the 70 percent median income at-risk-of poverty line instead (Figure 5.1B). Here, however, the proportions experiencing persistent poverty risk are higher and the proportion avoiding poverty risk completely are lower. The low levels of persistent poverty risk, particularly in countries such as Denmark, mean that the 70 percent income line may be a more practical choice for analyses of persistent poverty risk, and thus the following tables are confined to this.

A useful test of the degree of persistence of poverty risk is to compare the proportions experiencing different numbers of years in a state of poverty risk to the proportions that we would expect *if* the experience of poverty risk in any one year, based on the cross-sectional average between 1993 and 1996, was independent of that in other years. Figure 5.2 shows that on the basis of independence we would expect a far lower proportion of people in every country to avoid the state of poverty risk than we actually observe – around 50 percent lower in most countries. The corollary of this difference is that far fewer people than would be expected experience a single year at risk of poverty across the period, with Denmark closest to expectations at 66 percent less and France and Portugal furthest from expectations at 76 percent less.

Figure 5.2: Expected proportion in the state of poverty risk for N years using 70% median at-risk-of poverty line by country on the basis of independence

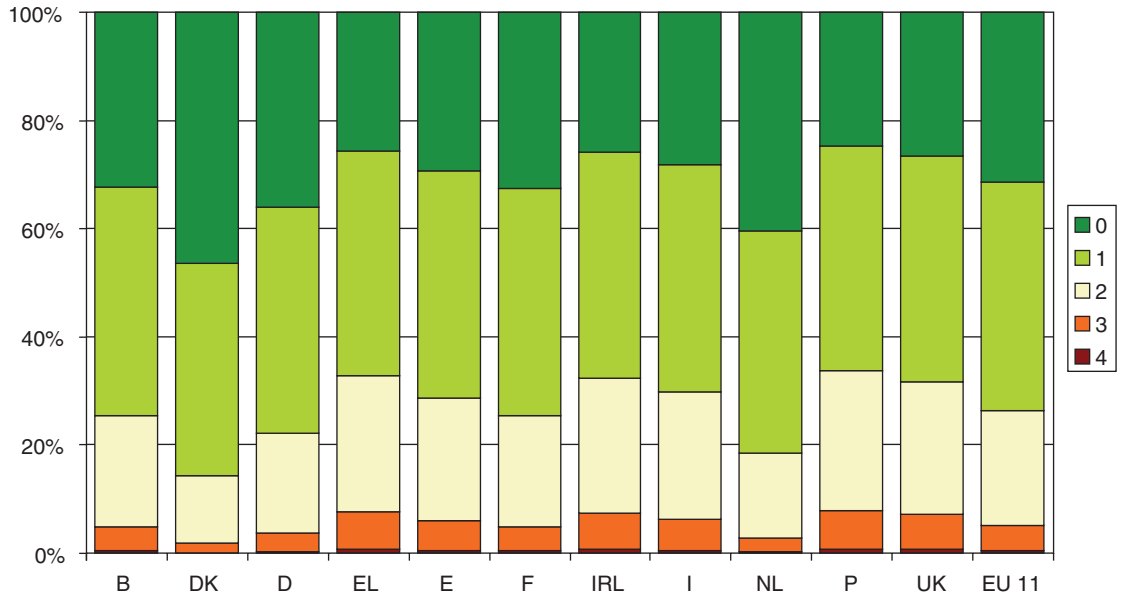
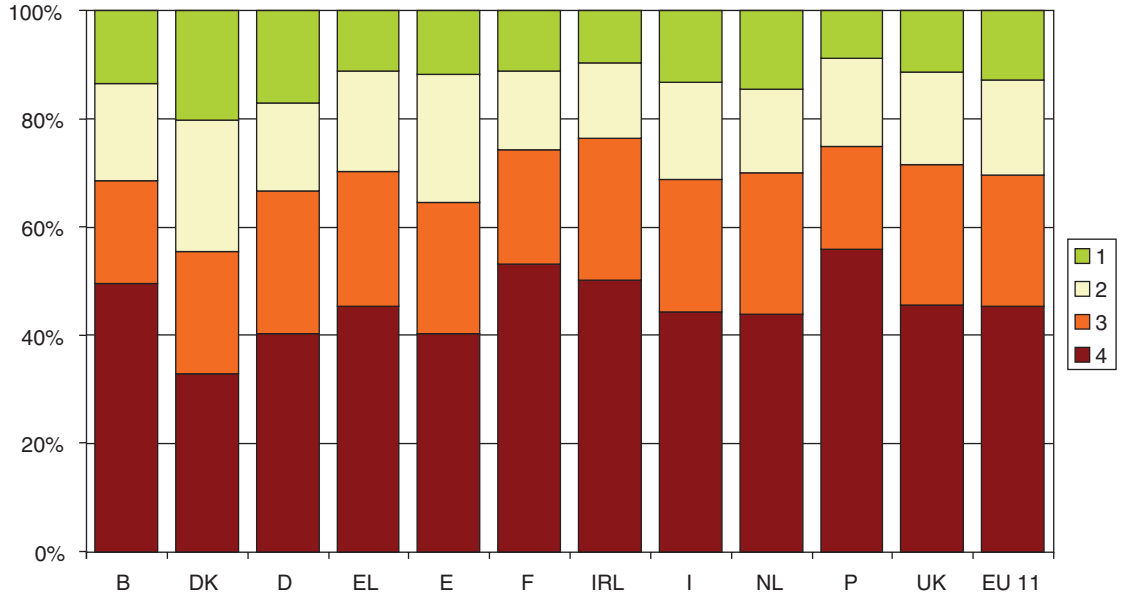


Figure 5.2 also shows that there are far higher proportions at risk of poverty in all four years than we would expect *if the experience of poverty risk in any one year were independent of that in any other*. Were the experience of poverty risk in any one year to be independent of that in any other, in most countries we would find no persons experiencing all four years in a state of at-risk-of poverty. This suggests that there is some 'inertia' to the experience of poverty risk that tends to lead to multiple, rather than single years in a state of at-risk-of poverty.

Figure 5.3: Proportion at-risk-of poverty for N years (70% median) as a fraction of all years in the state of at-risk-of poverty



Overall, this first analysis shows that though a higher proportion of people will experience a year of poverty risk than would be suggested by the cross-sectional rates, the risk of poverty is not spread evenly around the population. Some groups experience more persistent risks of poverty than we would expect if the proportion experiencing poverty risk in any one year was independent of that in any other. This tendency for certain individuals to experience a disproportionate share of income poverty risk is shown very clearly in Figure 5.3 which gives the proportion of the aggregate number of years spent in a state of at-risk-of poverty. Comparing Figure 5.3 with 5.1, it is clear that those experiencing more than one year of poverty risk over the four years contribute more to the overall 'burden' of income poverty risk than the group experiencing a single year. For instance, in France, the 12 percent of individuals who experience four years of poverty risk contribute 53 percent of all at-risk-of poverty years, clearly suggesting that this particular group carries a significantly heavier burden of poverty risk. Portugal and Ireland are close to France in their degree of persistence of poverty risk and can be contrasted with Denmark, where single years of poverty risk contribute 20 percent of the total, and the persistent risk of poverty only around 33 percent.

5.3. The 'fuzzy set' longitudinal measures of poverty

In Chapter 4 we introduced the 'fuzzy set' measure replacing the simple at-risk-of poverty/non-poor dichotomy by a continuous function indicating the degree of monetary poverty risk of each individual in the population. To reiterate, such a measure can be thought of as characterizing the propensity of an individual to income poverty. In the cross-sectional context, such a measure adds to the conventional measure in reflecting both the level and the degree of poverty risk. In the longitudinal context the method permits construction of indicators of persistent and any-time poverty risk, which avoid defining transitions simply as movements across some arbitrary at-risk-of poverty line. This can extend our understanding of the dynamics of income poverty risk.

As noted in Chapter 3 the dynamics of income poverty risk can be studied by following up the same ('balanced') panel of individuals over time. In Table 5.1A we have computed three such panels to enable us to also consider longitudinal trends for those countries, like Austria, which were not part of the ECHP from the beginning and which are in part omitted from the analysis reported in the previous section. The three panels are as follows:

- Individuals enumerated each year for three years 1994 to 1996. This covers 12 countries of EU-15, with the exception of Sweden, Finland and Austria. In the surveys covered, individuals not enumerated for all the three years are excluded from analysis.
- Individuals enumerated each year for three years 1995 to 1997. This also covers 12, this time including Austria but excluding Luxembourg.
- Individuals enumerated throughout the full four year period 1994 to 1997. This covers 11 countries, common to the above two sets.

Table 5.1A: Cross-sectional at-risk-of poverty rates & longitudinal fuzzy measure using 60% of median national income

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
A. Panel (period) 1994-95-96														
1994	19	8	16	22	22	17	17	20	16	10		23	19	
1995	17	12	15	21	20	16	19	18	11	10		24	20	
1996	16	10	14	21	19	17	19	18	11	11		22	19	
mean 1994-1996	18	10	15	21	20	17	18	19	13	11		23	19	17
Any-time at-risk-of poverty rate	27	18	23	33	32	25	27	29	21	18		33	30	26
Persistent at-risk-of poverty rate*	9	4	7	11	10	9	10	9	6	5		14	10	9
Ratio Any-time to mean	1.6	1.8	1.6	1.5	1.6	1.5	1.5	1.6	1.7	1.7		1.4	1.5	1.56
Ratio persistent to mean*	0.5	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.4		0.6	0.5	0.51
B. Panel (period) 1995-96-97														
1995	18	12	16	21	20	16	19	19		11	12	25	19	
1996	17	9	15	21	19	16	20	19		12	13	23	19	
1997	15	8	14	23	19	16	20	18		10	13	24	20	
mean 1995-1997	16	9	15	21	19	16	20	18		11	13	24	19	17
Any-time at-risk-of poverty rate	26	17	22	32	31	23	29	29		19	21	33	29	26
Persistent at-risk-of poverty rate*	9	4	9	12	9	9	12	9		5	6	15	11	9
Ratio Any-time to mean	1.6	1.9	1.5	1.5	1.6	1.5	1.5	1.6		1.7	1.7	1.4	1.5	1.54
Ratio persistent to mean*	0.5	0.4	0.6	0.6	0.5	0.6	0.6	0.5		0.4	0.4	0.6	0.6	0.54
C. Panel (period) 1994-95-96-97														
1994	20	8	14	22	22	15	17	20		10		24	19	
1995	18	12	13	21	20	16	19	18		11		24	19	
1996	16	9	13	21	19	16	20	18		12		22	19	
1997	15	8	12	23	19	16	19	17		10		24	20	
mean 1994-1997	17	9	13	21	20	16	19	18		11		23	19	17
Any-time poverty rate	30	19	24	36	35	26	31	32		20		36	32	29
Persistent poverty rate**	13	5	9	17	15	12	15	13		7		19	14	13
Ratio Any-time to mean	1.7	2.1	1.8	1.7	1.7	1.7	1.6	1.8		1.9		1.5	1.7	1.72
Ratio persistent to mean*	0.7	0.6	0.7	0.8	0.7	0.8	0.8	0.7		0.7		0.8	0.8	0.74

* Persistent poverty for A and B: poor at all the three years;
** Persistent poverty for C: poor for at least three of the four years

The following measures – all constructed using the 'fuzzy set' approach – are shown in the table for each panel:

- The cross-sectional at-risk-of poverty rate for each of the years covered in the panel
- Mean at-risk-of poverty rate over the period, i.e. the average of annual cross-sectional at-risk-of poverty rates.
- The any-time at-risk-of poverty rate. At the micro-level, 'any-time at-risk-of poverty' is the *largest* of the individual's propensities to poverty during the reference period. Its conventional counterpart is the proportion of persons in a state of at-risk-of poverty for at least one year during the period.
- The at-persistent-risk-of- poverty rate. At the micro-level, 'at-persistent-risk-of-poverty' is the *smallest* of the individual's propensities to poverty risk during the reference period. Its conventional counterpart is the proportion of persons at risk of poverty for the whole of the reference period.
- Ratio of any-time to the mean cross-sectional at-risk-of poverty rate.
- Ratio of persistent to the mean cross-sectional at-risk-of poverty rate.

Given that the full four years of data are not available for all countries, an attempt has been made in Table 5.1B to present a more complete picture covering a four period 1994-97 for all the 13 EU countries for which longitudinal data for at least three years are available.[32]

([32]) For each measure, the simple average over countries covered in panel C of Table 5.1A was calculated for all panels A-C. The ratio of the average (for the common set of countries) for panel C to that for panel A gives the factor by which statistics for the country (Luxembourg) covered in panel A but not in C (Luxembourg) are multiplied and then incorporated into panel C. The ratio of the average for panel C to that for panel B gives the factor by which statistics for country (Austria) covered in panel B but not in C are multiplied and then incorporated into panel C.

Table 5.1B Mean, any-time and persistent at-risk-of-poverty rates, 1994-97 including estimates for countries with three years of panel data (Austria, Luxembourg)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
							mean Cross-sectional rate							
Any-time at-risk-of poverty rate	30	19	24	36	35	26	31	32	23	20	24	36	32	28
Persistent at-risk-of poverty rate*	13	5	9	17	15	12	15	13	8	7	8	19	14	12
Ratio Any-time to mean	1.7	2.1	1.8	1.7	1.7	1.7	1.6	1.8	1.9	1.9	1.9	1.5	1.7	1.74
Ratio Persistent to mean	0.7	0.6	0.7	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.6	0.8	0.8	0.73

* Persistent at-risk-of poverty: at-risk-of poverty for at least three of the four years

The resulting Table 5.1B is helpful in showing a more complete and consistent picture of the variation across countries than is possible from the original data. On average in EU countries, 28 percent of the population experienced a risk of poverty for at least one year during the four-year period 1994-1997, and 12 percent experienced a persistent risk of poverty (for at least three of these four years). The corresponding average cross-sectional at-risk-of poverty rate prevailing at any one time was around 17 percent. This means that on average 80 percent or so more persons are in a state of poverty risk at some time during four years, compared to the cross-sectional rate at any one time. Around 60 percent of the persons in poverty risk at any one time are persistently in this state for at least three years during the four-year period.

The rates were the highest for Portugal, the figures being 36 percent in any-time poverty risk, 19 percent in persistent poverty risk, with an average cross-sectional rate being 23 percent. Greece has similarly high rates. Denmark shows the lowest rates: with 19 percent in any-time at-risk-of poverty, five percent in persistent poverty risk, with an average cross-sectional rate of ten percent. Similarly low rates are seen in Luxembourg and the Netherlands.

Across countries, we see a consistent pattern. The higher the level of poverty risk in a country, the less it is likely to be 'shared' among different individuals. The any-time to cross-sectional ratio is, for instance, 1.55 in Portugal (with mean cross-sectional at-risk-of poverty rate of 23 percent), and 2.14 in Denmark (with mean at-risk-of poverty rate of 10 percent). Similarly, the higher the level of poverty risk in a country, the more it is likely to persist among the same individuals. The persistent to cross-sectional ratios for Portugal and Denmark, for instance, are 0.82 and 0.56 respectively.

5.4. Exit probabilities from the state of at-risk-of poverty

In the last two sections we saw that though the experience of being at risk of poverty is more widely distributed than we would expect on the basis of cross-sectional estimates, it is also the case that this experience tends to persist among the same individuals once it occurs. We can give a more formal description of this tendency to immobility if we use probabilities to describe the chance of exit from the state of poverty risk after N years, or the chance of re-entering this state after not being in that position for N years. The exit probability is simply the proportion of those at risk of poverty in year *t* who are not in such a state of risk in year *t*+1 divided by the total sample at risk of poverty at *t* and expresses the tendency to stay in a state of poverty risk. If this rate drops as the number of years increases, it shows that there is some process operating which creates an 'inertia' to change stopping those in the state of at risk of poverty escaping this situation. Similarly, a falling re-entry rate would suggest that if people escaped poverty risk, the chance of them falling back into this situation is less the longer they avoid poverty. It is the extent of these tendencies that creates the persistent poverty figures that we have seen in previous tables.

Figure 5.4: Exit rates from 60% median income at-risk-of poverty N years after 1994

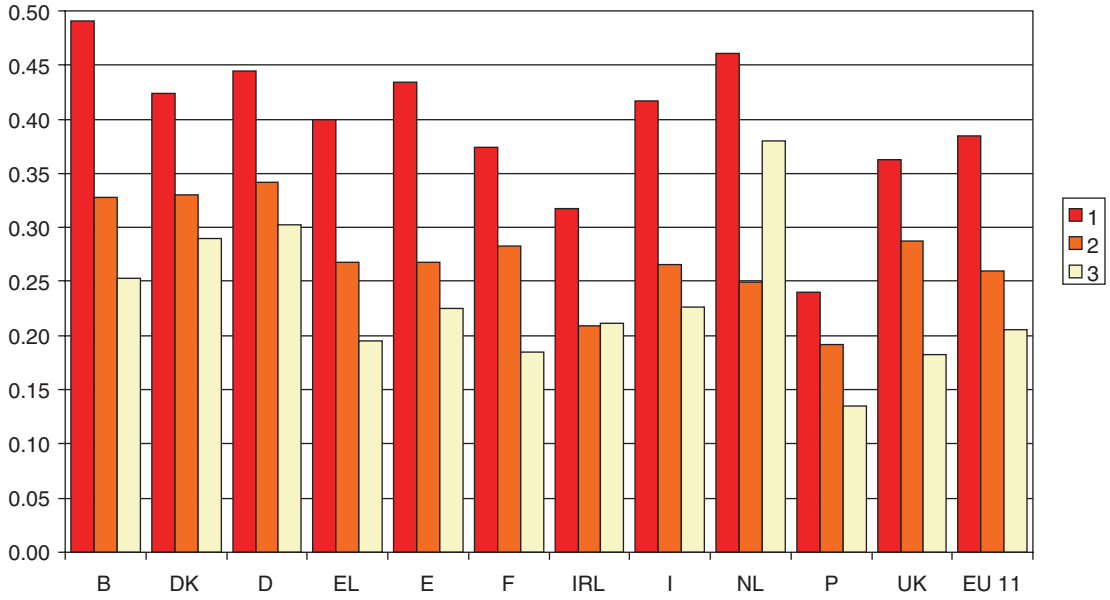
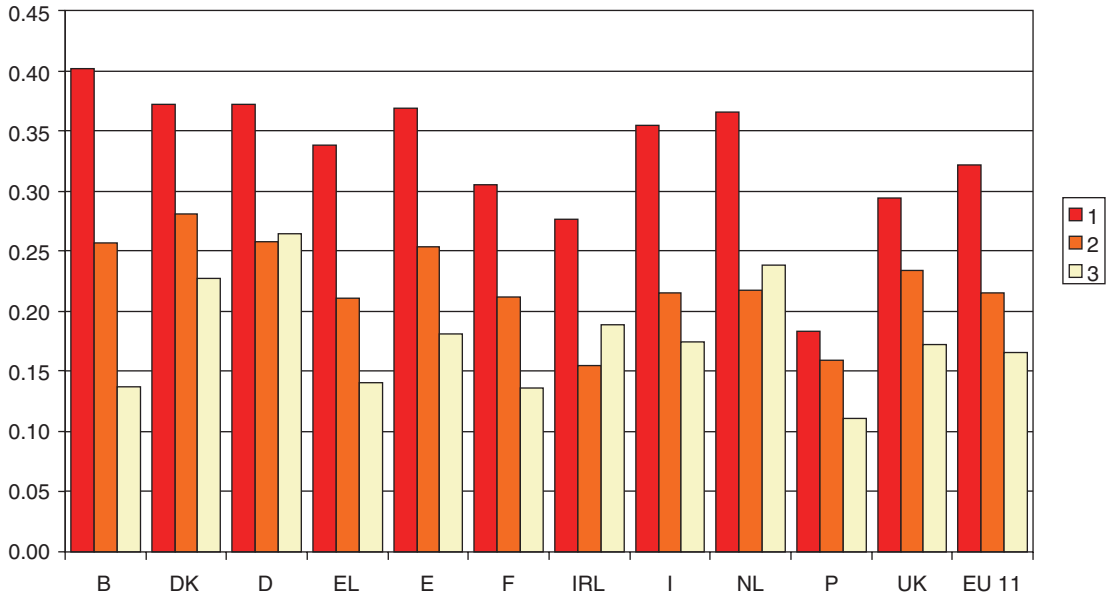


Figure 5.5: Exit rates from 70% median income at-risk-of poverty N years after 1994



Figures 5.4 and 5.5 give the exit rate from the state of at-risk-of poverty after one, two or three years using both the 60 and 70 percent at-risk-of poverty lines. They show that in most countries the probability of exit does indeed fall over time, though the tendency varies both by threshold and by country. Looking at Figure 5.5 first (using the 70 percent income line), Portugal has low exit rates, even at one year, followed by Ireland and the UK. Figure 5.4 (which uses the 60 percent median income line) shows similar, but more pronounced, patterns to those observed in Figure 5.5. Portugal displays again the lowest exit rates, yet the UK and France show steep falls after year one to register almost equally low exit rates at three years.

5.5. Re-entry probabilities to the state of at-risk-of poverty

The last section showed that the probability of exiting the state of at-risk-of poverty fell significantly the longer the person remained in this state. However, does the same process occur in reverse with regard to re-entry, i.e.

does the probability of re-entry into the state of at-risk-of poverty decrease the longer the period out of this state? Unfortunately, the short run of years available in the ECHP limits the observable period, but we can calculate rates for two years.

Figure 5.6: Re-entry rates to 60% median income at-risk-of poverty N years after exit in 1995

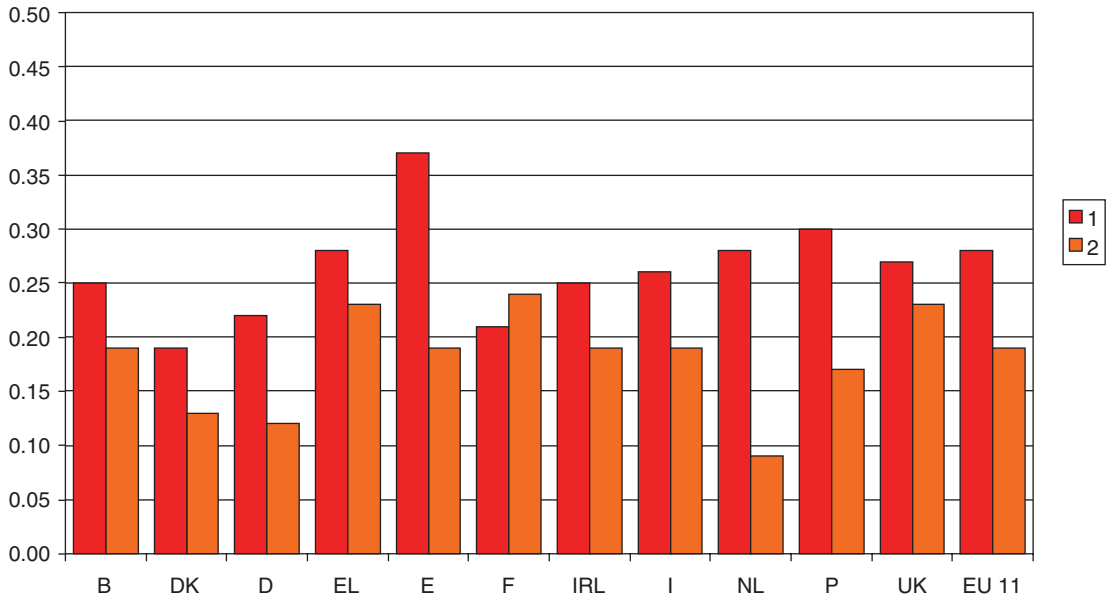


Figure 5.6 shows re-entry rates for 1996 and 1997 using the 60 percent median income at-risk-of poverty line and shows falls in the probability of re-entry in all countries except the UK, Greece and France where rates are roughly stable. Indeed in France the probability of re-entry slightly increases two years after exit. Rates of re-entry do however differ widely with a fall of two-thirds in the Netherlands compared to just below 15 percent in the UK. No distinct country pattern emerges from these results.

Figure 5.7: Re-entry rates to 70% median income at-risk-of poverty N years after exit in 1995

Moving on to the pattern using the 70 percent median line in Figure 5.7 we see similar results except here the probability of re-entry is higher, not a surprising finding given that the at-risk-of poverty line is higher and thus easier to fall below. The extent of decrease in the rate of re-entry from year one to year two is nevertheless similar, albeit with decreases running from 66 in Denmark (rather than the Netherlands) to seven percent in France.

Overall, this section has shed more light on the reasons why different countries have higher rates of persistent poverty risk by showing the extent of differences in exit rates from and re-entry to the state of at-risk-of poverty. Though it is trivially true that low exit rates will lead to longer spells in a state of poverty risk overall, the extent of decrease in the exit rate over time suggests a regular and structured process which decreases the ability of individuals and households to emerge from or avoid poverty risk. Moreover, this process was more apparent in some countries than others.

5.6. The characteristics of persons at persistent risk of poverty

Earlier in this chapter we saw that the distribution of income poverty risk was not even across the population and that some individuals bore a disproportionate risk of experiencing several years in the state of at-risk-of poverty that we labeled 'at-persistent-risk-of (income) poverty'. Here we take this analysis forward by examining what factors put a person at persistent risk of poverty and try to see whether these characteristics affect individuals uniformly across countries.

In presenting the impact of different characteristics we are once again faced with the problem of presenting a large amount of information – eleven countries, four years, multiple at-risk-of poverty lines and different household characteristics. To make the analysis manageable, we collapse the number of years at risk of poverty into two groups, those experiencing one or more years (1+) and those experiencing three or more years (3+) in a state of poverty risk. The reader is here reminded that the latter group is the one usually referred to as at-persistent-risk-of poverty under the current Eurostat convention. We then employ 'odds ratios' to express the relative risk that different households face of experiencing this degree of persistent poverty. An odds ratio is the risk of poverty faced by the disadvantaged group divided by that of the advantaged group. Thus, if the odds ratio of experiencing 1+ years of poverty risk is more than one, this implies that the disadvantaged group has a higher chance of experiencing 1+ years in poverty risk compared to the advantaged group. Following on from the results of Chapter 3, our basic hypothesis would be that factors that increase the level of need, or decrease the availability of resources would, *ceteris paribus*, lead to a higher probability of experiencing persistent ie.longer-term risk of poverty (3+ years).

We begin with the effect that the educational level of the household reference person has on the persistent risk of poverty. Figure 5.8 displays the odds ratios using the 60 percent median income at-risk-of poverty line and shows across all countries that households where the reference person has low levels of education are far more likely to experience one or more years in poverty. However, the relative risk varies widely across countries, although a pattern does emerge with Denmark, the Netherlands and Germany having relatively low ratios; the UK, Belgium, France, Ireland and Italy making up a middle group; and the other Southern European countries constituting a group with high odds ratios. This pattern is interesting since the groups are similar to those found using a cross-sectional measure of income poverty risk.

Figure 5.8: Odds ratio of low to medium or high education groups experiencing N years under the 60% median income poverty line

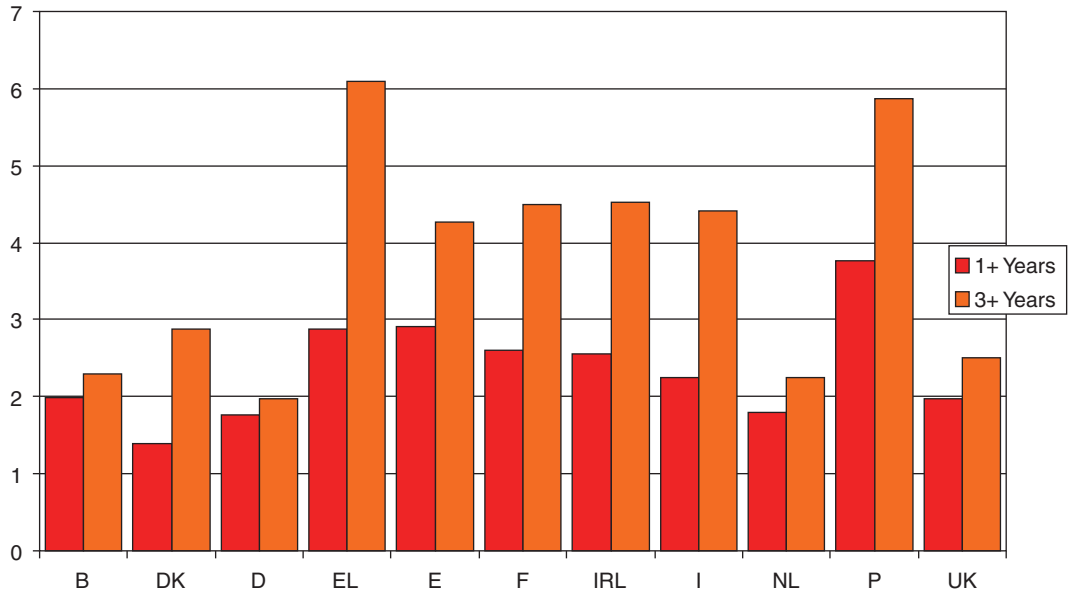


Figure 5.9: Odds ratio of low to medium or high education groups experiencing N years under the 70% median income at-risk-of poverty line

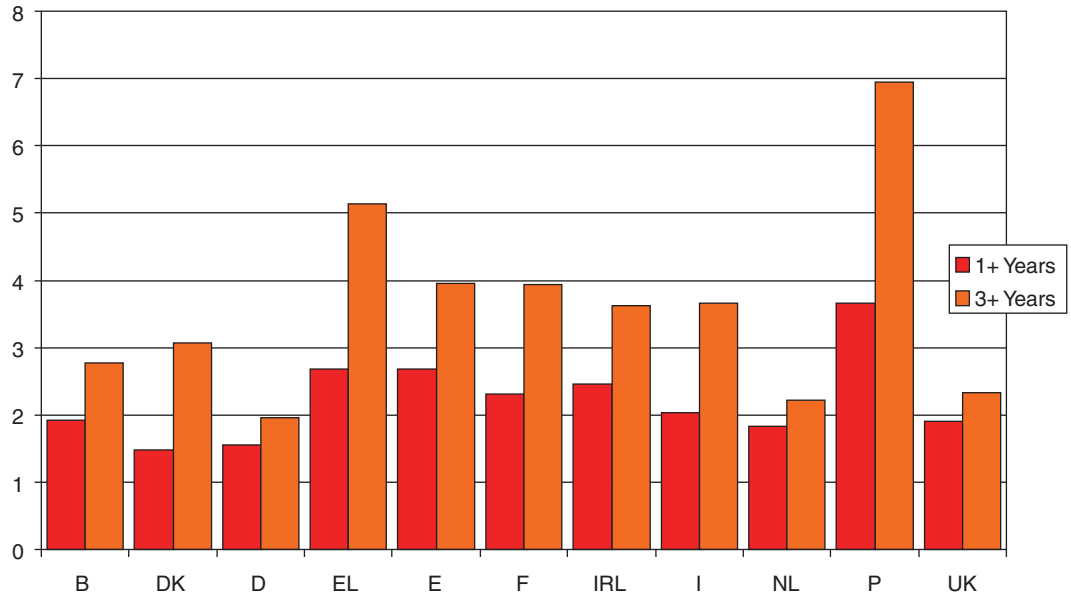


Figure 5.9 shows the odds ratios for educational qualifications using the 70 percent at-risk-of poverty line. The pattern observed here is almost identical to that using the 60 percent income line with Denmark, Germany and the Netherlands once again forming a group with low differentials, the UK, Belgium, France, Ireland and Italy forming a higher group and the other Southern European countries forming a high ratio grouping. As we tend to see the same patterns with the 60 and 70 percent income at-risk-of poverty lines, in the remaining analyses in this section we simply use the 70 percent median income at-risk-of poverty line.

Figure 5.10: Odds ratio of manual to non-manual workers experiencing N years under the 70% median income at-risk-of poverty line

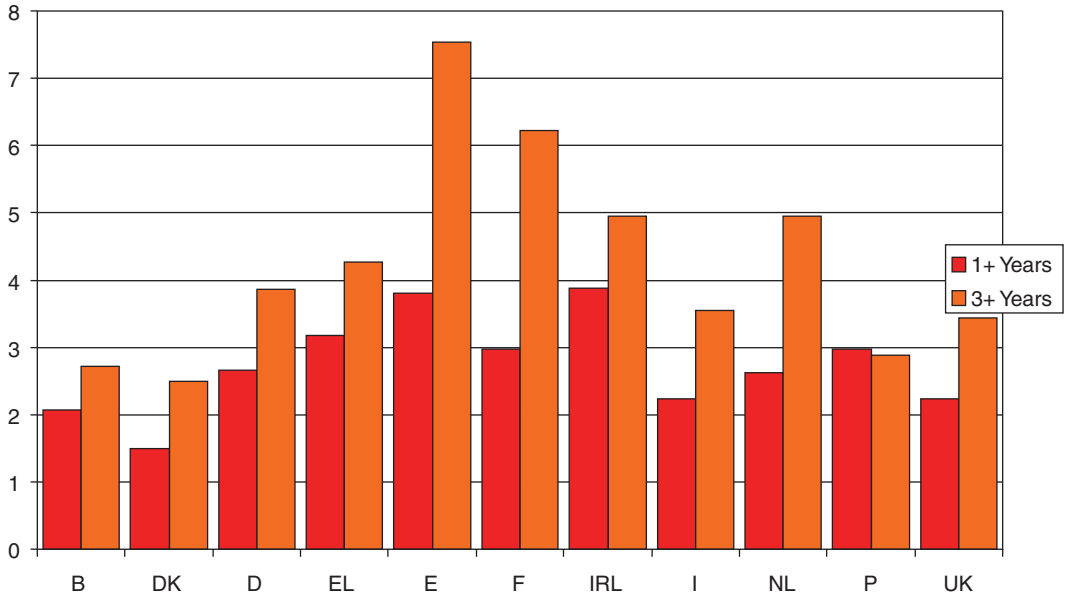


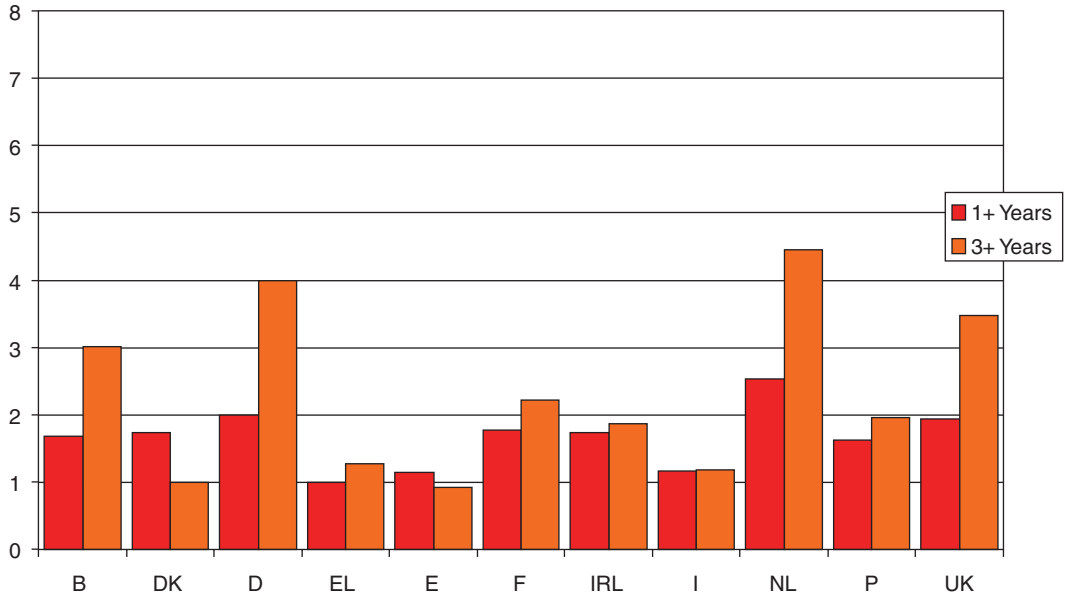
Figure 5.10 shows the odds ratios that express the risks for advantaged and disadvantaged social classes across countries using the 70 percent median income line. What is immediately striking is the very low relative risk that manual employees have in Denmark of experiencing both one or more and three plus years of poverty compared to the other countries.[33] We have seen earlier in this chapter that the risk of poverty and persistent poverty is lower in Denmark, but Figures 5.8 to 5.10 also show that there are very low differentials between groups in Denmark as well. What is also striking about the class differentials is the different country ordering that emerges depending on whether we use the 1+ or 3+ measures. If we used the 1+ measure, Belgium, the Netherlands, the UK and Italy emerge as low differential countries, with France, Portugal and Germany as medium differential countries and the remaining Southern European and Ireland forming a high differential group. However, if we use the 3+ measure, Portugal joins the low differential group whilst the Netherlands and France become high differential countries.[34] Though the change in country order when using different measures seems complicated, it is worth remembering that among all countries and among the education and social class categories, the disadvantaged groups have a significantly higher chance of experiencing both short and long duration risk of poverty with the differential being higher for the latter.

Do we see similar differentials if we compare different household types that are more or less advantaged? Figure 5.11 shows the odds ratios for single parents compared to those of a more advantaged household type, namely for couples under sixty-five with two or fewer children.

([33]) Though the 3+ figures in Denmark should be regarded with caution in Figures 5.10-5.13 as the number with 3+ years of poverty risk is small.

([34]) It should be remembered when examining odds ratios that the size of the differential can reflect the extent of advantage for the advantaged group as well as the depth of risk for the disadvantaged group.

Figure 5.11: Odds ratio of single parents to couples with 2 or less children experiencing N years under the 70% median income at-risk-of poverty line



Compared to the effects for education and social class, those in Figure 5.11 cover a relatively narrow range for the risk of 1+ years in poverty, with only those for the Netherlands looking exceptional. As before the division is between the Northern and Southern European countries with the former having odds between 1.68 and 1.94 (excluding the Netherlands) and the latter odds from 1 (the same risk) and 1.63. The lower differential in the outhern European countries in Figure 5.11 reverses the trend we have observed in other tables, but may well reflect the fact that single parenthood, particularly as a result of unmarried child bearing, is much rarer in Southern European countries, thus the population of single parents tends to be older and more advantaged. Using the 3+ years of at-risk-of poverty measure we see more variation, though the North/South difference remains and the Netherlands once again appears exceptional, as does Spain, where single parents run a lower persistent risk of income poverty.

Figure 5.12: Odds ratio of elderly couple to couples with 2 or less children experiencing N years under the 70% median income at-risk-of poverty line by country

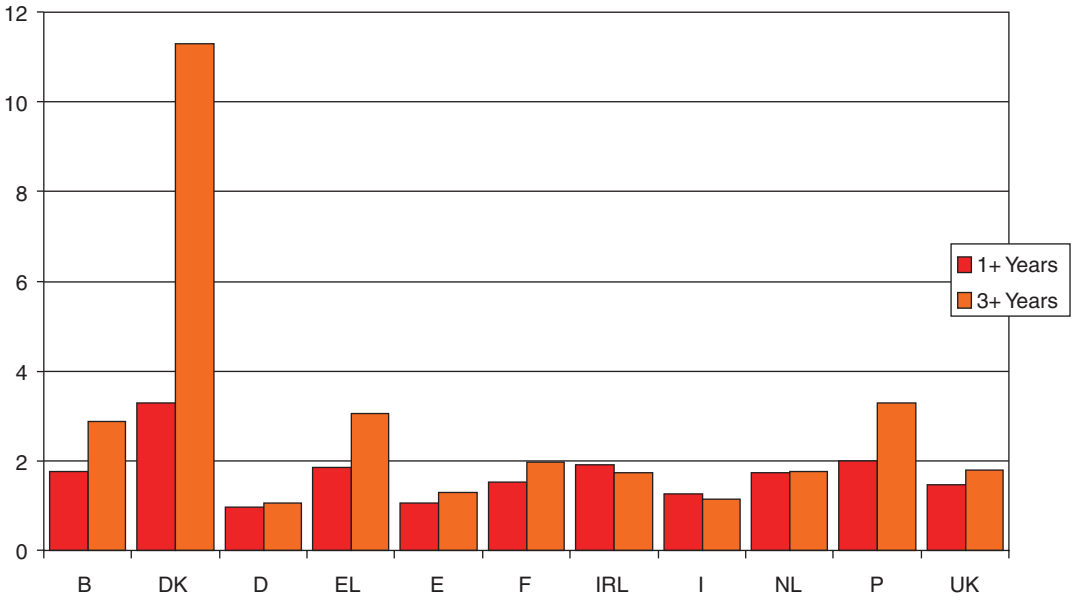
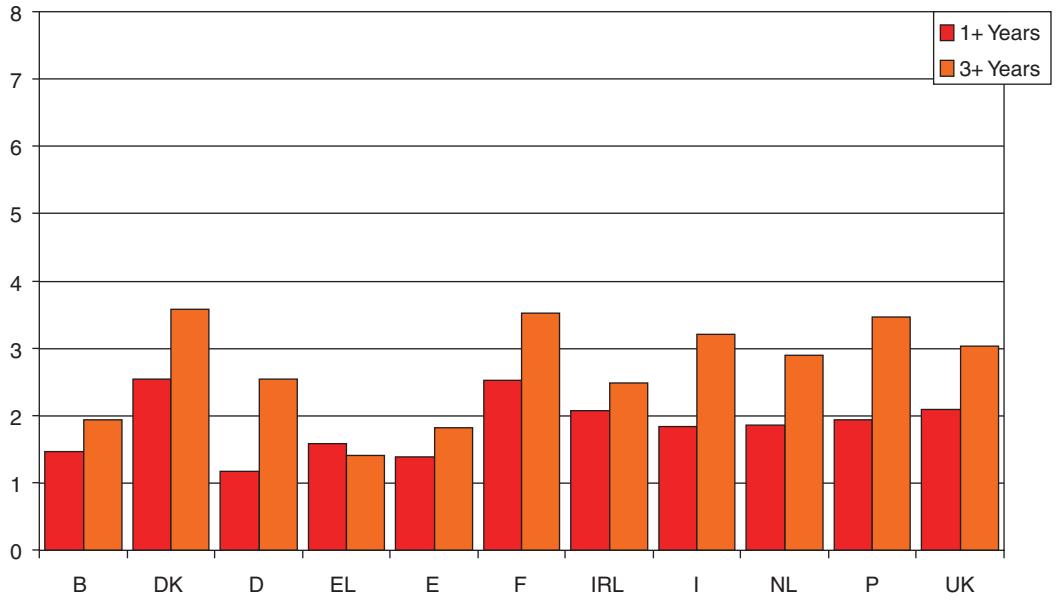


Figure 5.12 gives the odds ratios for an elderly couple compared to the advantaged household type. Across both measures (1+, 3+) and all countries, we see odds greater than one for an elderly couple, suggesting that this type of household has a much higher risk of poverty. The exceptions are Germany, where the risk is roughly equal across both measures, and Spain, where the risk is roughly equal for the 1+ year of at-risk-of poverty measure. Interestingly, older couples in Denmark have the highest risk when compared to other countries. This result, however, is based upon a very small number of cases and may not be reliable. The persistent risk of poverty for older Danish couples is a huge 11.3, more than three times the rate in other countries.

Figure 5.13: Odds ratio of a couple with 3+ children to couples with 2 or less children experiencing N years under the 70% median income at-risk-of poverty line



In Table 5.13 we move on to the effect of having a higher number of children (couples with 3+ children). Looking across Figure 5.13 we see, as expected, that these types of households run a higher risk of poverty and persistent poverty when compared to households with lower numbers of children, though it should be remembered that we are not controlling for other factors here, which may confound the effect. For example, it may be that working class families are more likely to have larger families, in which case the association of larger numbers of children with a risk of poverty may well reflect the impact of working class occupations rather than larger numbers of children.

Though the effect is uniformly positive with regard to the (higher) level of risk, the effect of having larger numbers of children does seem to vary by country, with Denmark, France, the UK and Ireland having high odds ratios. Denmark in particular has a very high odds ratio for experiencing 3+ years at risk of poverty, whereas the risk in Greece for this household type is relatively low, and the lowest for persistent risk of poverty.

This section has extended the analysis of poverty dynamics by using simple descriptive analyses to disaggregate the way in which years of at-risk-of poverty are distributed over the population. The analyses clearly show that both the factors that increase the level of needs in the household and those that limit the availability of resources influence the risks of poverty and persistent poverty for the worse. Both low educational level and manual working class position tend to increase the risk of poverty, though the latter varies between countries, with Denmark, Belgium and the Netherlands, and, to a lesser extent, Germany, having low differentials; the UK, France and Ireland having a moderate risk; and the Southern European countries generally having the highest risk. This pattern is not as distinct for the household type variables – indeed it is almost reversed for single parents and, in part, for large families with (3+) children. It is still generally true, however, that being a single parent, being older or having more children is associated with a higher risk of poverty when compared to non-elderly couples with two or fewer children.

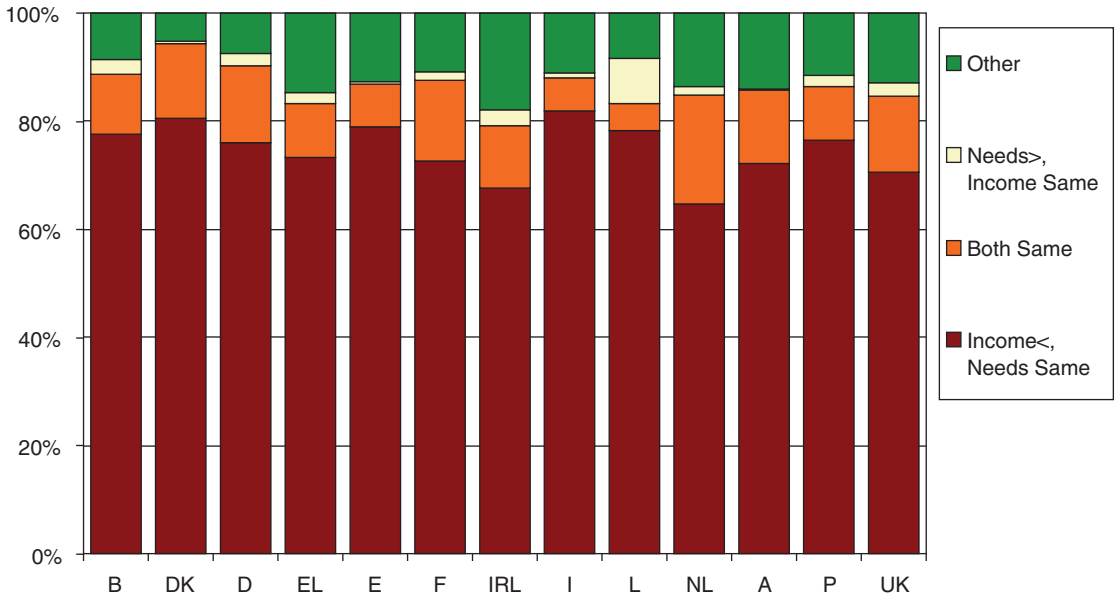
5.7. Transitions into a situation at risk of poverty

The analyses in the last section were framed using a general hypothesis about the factors that would make the experience of poverty risk more likely, for instance manual work/social class and having retired. It may well be however, that specific changes in a person's or household's life may lead them directly into poverty risk. More likely still is that transitions into poverty risk are the result of a number of linked events. For example, a person may become poor because the income of their household fell and this, in turn, occurred because the number of employed people in the household fell. Yet this train of events may have been triggered by the separation or divorce of the married partners in the household and the exit of one employed adult.[35]

In this section we will try to tap on the effects of such changes. We do so by moving from an emphasis on persons to one of 'transitions', that is, whether a person moved from a situation of no risk with regard to poverty to being at-risk in the next. By selecting these people and examining the characteristics of the household we can see whether a change in those characteristics at year *t*+1 led to an increase in the likelihood of transition into poverty risk in year *t*+1. Because the factors associated with transitions can be complex, this is best understood through multivariate methods where we can control for different characteristics whilst examining the impact of specific changes in circumstances. Once again, given the problem of dealing with large amounts of information because of the number of countries and required variables, we will only be analyzing transitions into and from poverty risk using the 70 percent median income at-risk-of poverty line.

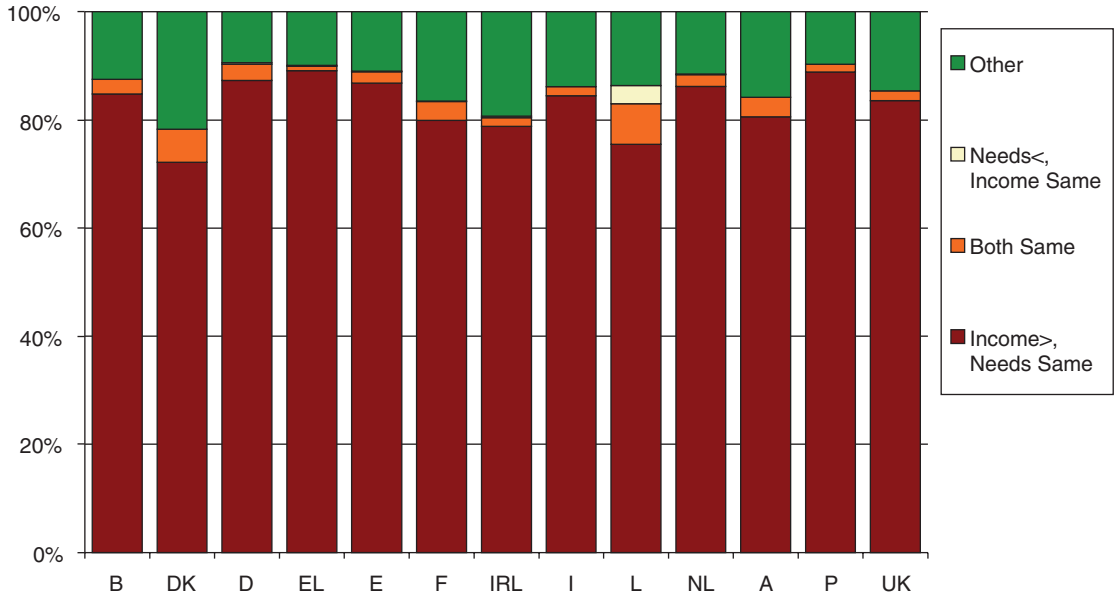
Consistent with the analyses in the last section, we use the broad differentiation between factors that influence the level of 'need' in the household, and those associated with the level of 'resources', except here we do this using the most basic measures of these concepts – the equivalent size of the household to represent needs (i.e. the weighted number of individuals) and the level of income to represent resources. We begin the analysis with a broad question: are moves into and from poverty risk more associated with needs or with resources?

Figure 5.14: Proportion of entries to a state of at-risk-of poverty due to decreases in income or increases in needs 1994-6



(35) A further complication that arises is that in the absence of any change in personal or household characteristics, or even an increase in income, the relative nature of the at-risk-of poverty line means that a household could become poor, or alternatively, move out of poverty because the income distribution, and thus the at-risk-of poverty line, moved around them.

Figure 5.15: Proportion of exits from at a state of at-risk-of poverty due to increases in income or decreases in needs 1994-6



To assess this question Figure 5.14 shows the proportions of those entering a state of poverty risk and who experience

- no degree of change in either income or needs,
- an increase in needs but the same income,
- a decrease in income but the same needs,
- or a varied 'other' category.

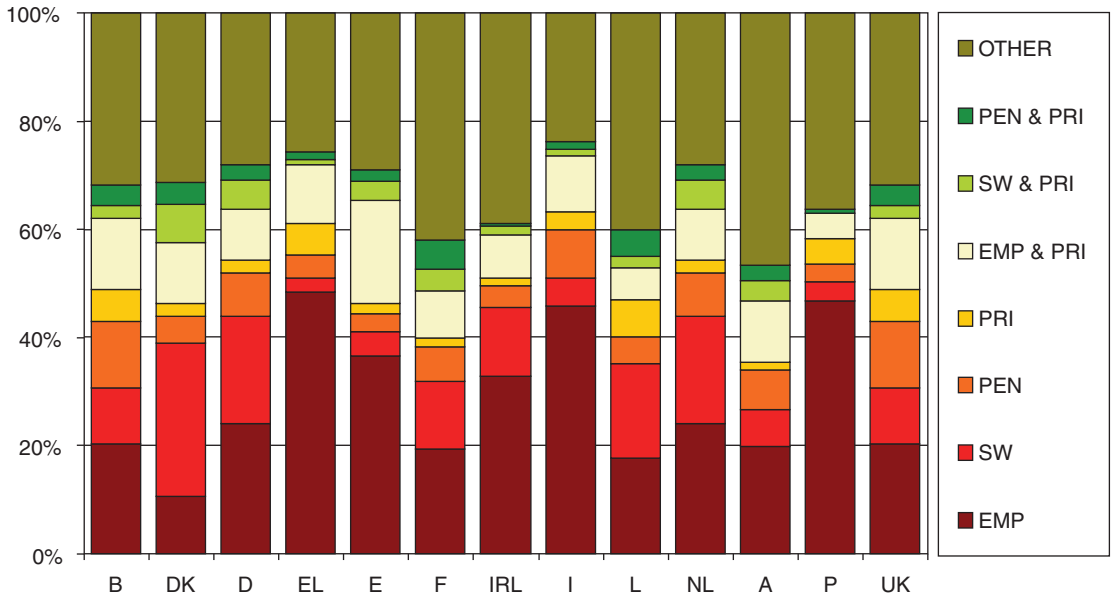
Similarly, Figure 5.15 shows the proportions leaving the state of poverty risk, except here our interest is in increasing income or decreasing need.[36]

It is fairly clear from Figure 5.14 that very few of those at risk of poverty entered this state because the level of needs increased. The vast majority entered a risk of poverty because income fell whilst the level of needs remained constant or fell by a lesser amount. This varies from over 80 percent in Denmark and Italy, to 65 percent in the Netherlands, but the proportion is more than 70 percent in eleven of the thirteen cases. This means that when explaining transitions into poverty risk, it is far more likely that the triggering events are those that decrease income.

Figure 5.15 shows that moves out of poverty risk also tend to be associated with changes in the level of income with changes in the level of needs making up a fraction of a percentage of all moves from poverty risk in all countries except Luxembourg.

([36]) In assessing whether a change in income had occurred we allowed for a 10 percent margin of error, thus a change only occurred if household income rose or fell by more than 10 percent. This is one reason why there is a 'both the same' portion within the columns of these two figures.

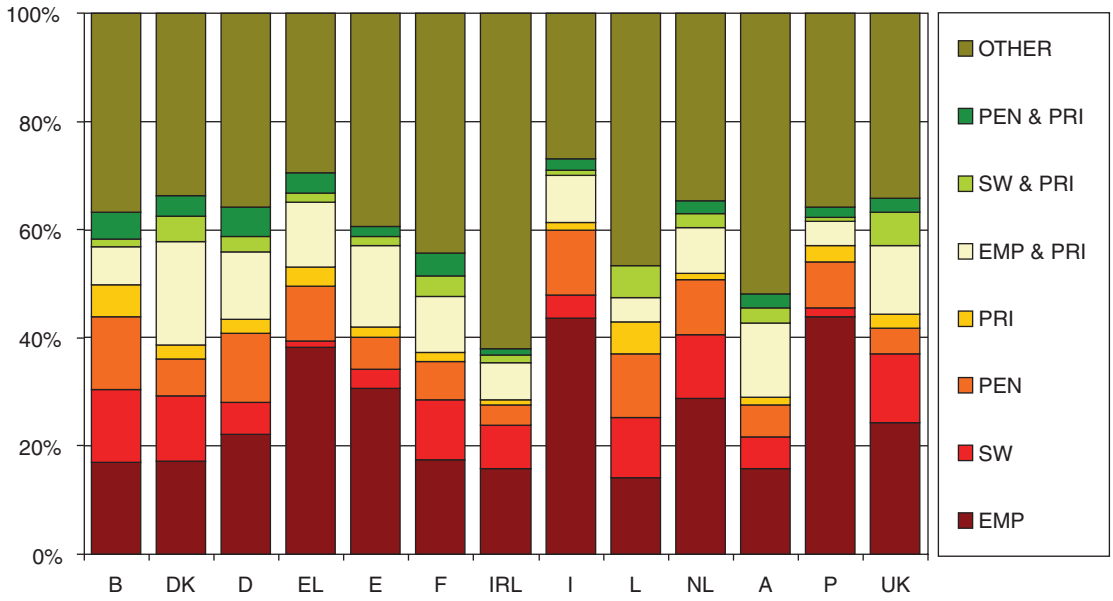
Figure 5.16: Income types decreasing at entry to a state of at-risk-of poverty 1994-6



Given that decreasing income is primarily responsible for the majority of moves into poverty risk, what types of income loss are more likely to be responsible? Figure 5.16 shows the proportions of those entering a state of poverty risk who experience falls in particular types of income including earnings from employment and self-employment (EMP), social welfare payments (SW), pension payments (PEN) and private transfers and income from investments (PRI). Falls in income from paid work tend to be the main reason for increases of poverty risk, though the proportion varies widely from 11 percent in Denmark to 48 percent in Greece. More interestingly, we observe a clear differentiation between Northern and Southern European countries with changes in work incomes being more important in the latter. On the other hand, when we look at the effect of changes in income from social transfers other than pensions, the opposite is the case. A fall in income from social transfers (other than pensions) explains the move into poverty in 28 percent of cases in Denmark yet only three percent in Greece. This is not surprising, however, given the low coverage of social transfers in Southern European countries.

Figure 5.17 gives the results for movements out of poverty risk and shows a similar picture. The proportion of those exiting the state of at-risk-of poverty having an increase in work income varies from 14 percent in Luxembourg to 44 percent in Italy. With regard to social welfare payments the respective proportion varies from one percent in Greece to 13 percent in Belgium and the UK.

Figure 5.17: Income types increasing at exit from a state of at-risk-of poverty 1994-6



To reiterate, the figures so far show that movements into the state of at-risk-of poverty or increases in poverty risk tend to be preceded by decreases in income rather than increases in the level of need in household. Moreover a decline in earned income is most likely to increase poverty risk. Earned income can fall for a number of reasons, but movements from employment into unemployment or inactivity are probably central. To get a clearer picture of the direct impact of these types of transitions we estimated two logistic regressions, one for entry to the state of at-risk-of poverty and one for exit that control for a number of covariates including country, age, sex, and labour force status of the household head, the year of the transition (1994-5 or 1995-6) and the number of children and adults. The results of these equations are shown in Figures 5.18 to 5.20 in the form of the 'odds' of certain changes leading to entry into the state of at-risk-of poverty or exit from it (where odds greater than 1.0 means a greater risk than the reference category).

Figure 5.18: Odds of entering and exiting 70% median income at-risk-of poverty by change in employment status 1994-5

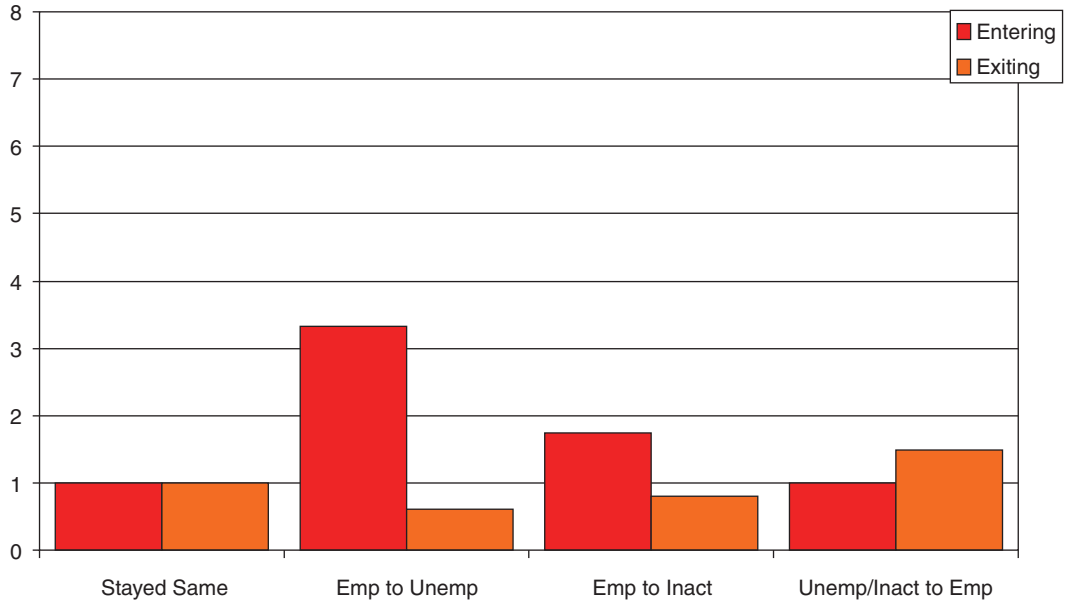
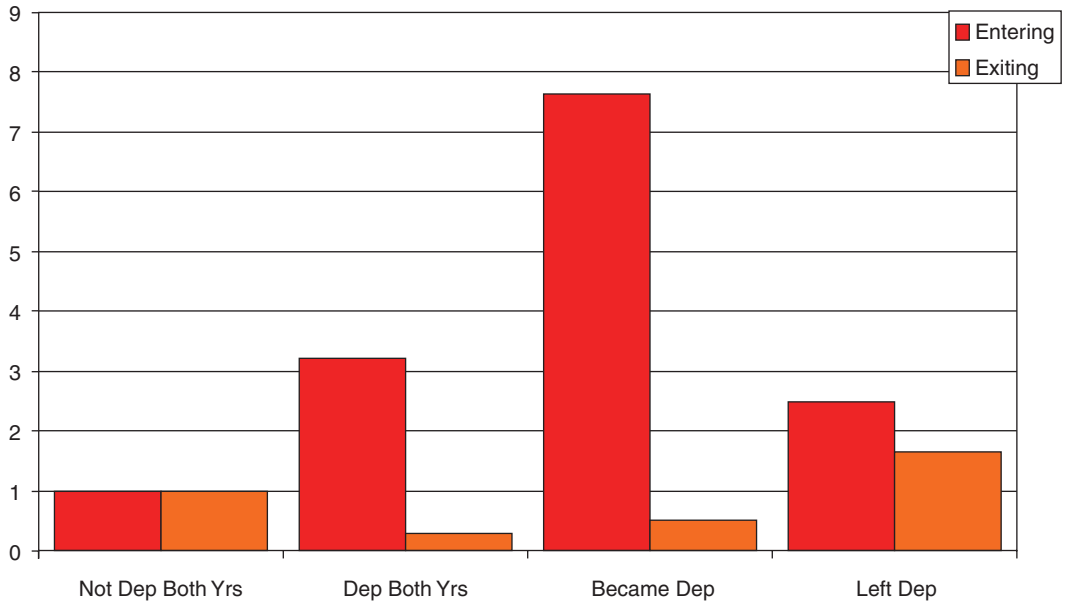


Figure 5.18 shows that movements into unemployment or inactivity from employment have a higher probability of leading to poverty risk than either stability in the position of the head, or a movement back into the workforce. Controlling for the employment status of the head of household at year *t*, we can see from Figure 5.18 that a transition from employment into unemployment leads to almost 3.3 times the likelihood of entering poverty risk and decreases the odds of exiting by 40 percent. Similarly, a transition into inactivity leads to 1.7 times the risk of poverty and a 20 percent decrease in exit probability. On the other hand, movements back into employment from unemployment or inactivity improve by 1.5 times the odds of leaving poverty risk.

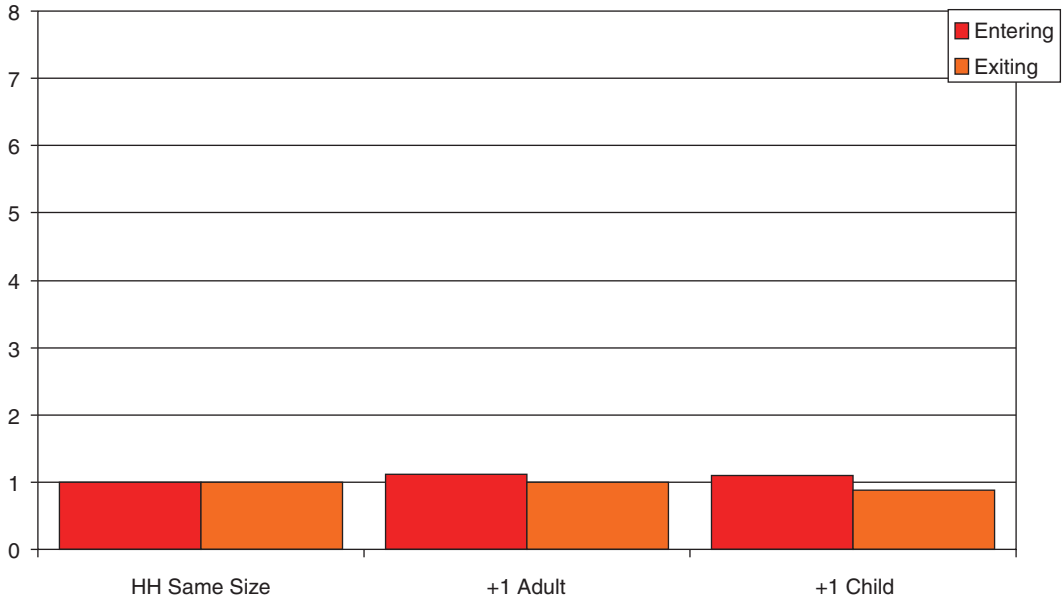
In the absence of other sources of income, transitions into unemployment or inactivity lead to reliance on social transfers in the form of welfare payments. Given that such payments tend to be lower than work income, this often increases the risk of poverty. We can see this effect directly in Figure 5.19 that shows the effect of changes in a household's dependence on social welfare on the probability of entering or exiting the state of at-risk-of poverty.

Figure 5.19: Odds of entering and exiting 70% median income at-risk-of poverty by change in dependence on social welfare 1994-5



As would be expected, being dependent on social welfare in both years increases the odds of entering and decreases the odds of leaving poverty. Most interestingly, the odds of entering a state of poverty risk increases massively to 7.6 when the household moves into dependence on social welfare. On the other hand, this transition decreases the probability of no longer being at risk of poverty by 50 percent. If a household leaves dependence, their previous exposure to social welfare or low income means that they still have 2.4 times the odds of those never dependent, though the odds of leaving the state of poverty risk increase by 160 percent.

Figure 5.20: Odds of entering and exiting 70% median income at-risk-of poverty by change in HH size 1994-5



Lastly in this section we examine the effect that the changing size of a household may have on transitions into or out of poverty. Figure 5.20 shows the effect that the addition of one adult or one child has on the odds of entering and leaving the state of at-risk-of poverty. Both increase the probability of becoming poor, though the effect of household size is less important in absolute terms than changing income. An extra adult increases the odds of poverty risk by 12 percent and a child by nine percent. However, the addition of another adult does not seem to decrease the odds of poverty risk whereas the addition of a child has a significant negative effect, lowering the odds of transition.

5.8. Conclusions

In this chapter we have used the longitudinal element of the ECHP to examine income poverty dynamics. This analytical move is crucial since poverty risk is not a static phenomenon and its effects on individuals and households will vary considerably depending on the length of time that it is experienced and thus the impact that it has on the accumulation and erosion of resources.

By examining the proportion of people who experienced at least one year in a state of at-risk-of poverty between 1993 and 1996 we found that roughly twice as many people experienced such a spell than would be expected from cross-sectional figures, although the difference in the measures is less pronounced in Germany and decreases the more generous the at-risk-of poverty threshold used. Nonetheless, it is clear that poverty risk is a far more widespread experience than is suggested by cross-sectional at-risk-of poverty rates.

This does not mean that income poverty risk is spread evenly across the population, however. Our analyses suggest instead that a smaller group bears a greater burden. Moreover, the proportion of people that we would expect to be experiencing persistent, or long-term risk of poverty is actually far higher than we actually observe. This inequality in the burden of poverty risk is not uniform across countries. Whereas in France the proportion of individuals experiencing one year of poverty risk and the fraction of the total number of years made up by this group is the same at around 10 percent, the 12 percent of individuals who experience four years at-risk-of poverty contribute 53 percent of all at-risk-of poverty years, clearly suggesting that a particular group carries a significantly heavier burden of poverty risk. Portugal and Ireland are close to France in their degree of persistent risk of poverty. These three countries contrast with Denmark, where single years of poverty risk contribute 20 percent of the total and persistent risk of poverty around 33 percent.

The examination of exit and re-entry rates illustrated some of the dynamics that create this persistent risk of poverty by showing that the probability of exit from the state of at-risk-of poverty falls quickly over time in most countries. Exit rates in Portugal, the UK, France and Ireland are low even at one year and fall quickly, leading to a greater probability of entrapment in poverty, whereas, when we look at Denmark or the Netherlands, we see the highest exit rate in 1993 and a shallow fall thereafter.

Breakdowns by household characteristics showed that the people most exposed to persistent risk of poverty are those who could command fewer resources in the labour market, or who have a higher level of need, a finding that is consistent across countries and shows a very structured pattern. Finally, we found changes in the former to be of greater importance in precipitating an increased risk of income poverty, usually as a result of changes in the earnings of a household member either from employment or self-employment. An analysis of the effect of transitions into unemployment or inactivity on the part of the head of household showed that this led in a large proportion of cases to a fall below the at-risk-of poverty line.

6. Non-Monetary or Lifestyle Deprivation

This chapter analyzes non-monetary indicators of lifestyle deprivation. We begin this analysis from the cross-sectional perspective in a fashion similar to Chapter 4 on income poverty, by providing overall comparisons and reporting on causal sequences and risk groups. The analysis is then developed to the longitudinal perspective as in Chapter 5, focusing on persistent and transient forms of lifestyle deprivation and their socio-economic profiles.

6.1. Choice of indicators

In addition to the level of monetary income, the standard of living of households and persons can be described by a host of indicators, such as housing conditions, possession of durable goods, the general financial situation, perception of hardship, expectations, norms and values.

A wide range of supplementary variables are available for analysis using the European Community Household Panel. These indicators concern amenities in the household, ability to afford durable goods, problems with accommodation, and subjective variables on perception of hardship. Dirven *et al.*, in the first Social Report[37], analysed some 40 ECHP indicators which can be said to comprehensively describe lifestyle deprivation. These include 'objective' indicators (availability of basic amenities, car, housing conditions etc.), 'subjective' indicators (satisfaction questions, questions on economic hardship or questions on health etc.), and indicators on social relations (such as membership of formal networks and access to informal networks).

A large subset of these indicators have been retained for the purpose of analysis in this report. The selection has been made on the basis of several criteria to do with the expected relevance, clarity, availability and, above all, comparability of the items concerned across the Member States. For instance, an item (a possession, facility, problem etc.) was not included if its presence was rare in most of the countries, or if the data were missing in several countries. Some items (such as 'having a second home') were dropped because the issue as to whether their absence represented enforced deprivation or simply a matter of consumer choice could not be unambiguously resolved. Similarly, items such as the presence of central heating facilities in the accommodation appeared to reflect more the climatic differences between EU countries than socio-economic differentials which are the prime concern in the present analysis. Some items, such as concerning subjective assessment of the person's general health status or expressed satisfaction with various aspects of work and life, did not appear to relate consistently with other variables in some countries. A similar point can be made with regard to the indicator on formal social relations. In Northern Europe there are many more civil society organizations (and consequently there are far more respondents that state they are members of such organizations), than there are in Southern Europe. In the latter countries, social interaction may be more through informal avenues. Any analysis that seeks to test the degree of association between social relations and, say, general satisfaction with health, work and other aspects of life (with a view of establishing how relevant social isolation is to the understanding of social exclusion) must take these absolute structural or societal differences into account.

In summary, the most important determining factor in the choice of the set of items for analysis was an assessment – based on a detailed examination of variations in frequency distributions across countries and background knowledge of national situations – of the extent to which an item could be meaningfully included in comparative analysis. Generally, the preference has been to include a majority of so-called 'objective' indicators on lifestyle deprivation, such as the possession of material goods and facilities and physical conditions of life, at the expense of what may be called 'subjective' indicators such as self-assessment of the general health condition, economic hardship and social isolation, and the expressed degree of satisfaction with various aspects of work and life.

On the basis of above considerations, the following 24 non-monetary items available in the ECHP have been included in the analysis as indicators of lifestyle deprivation. Table A6.1 in Annex 3 to this report reports the country-specific distribution of the selected 24 individual items from ECHP Wave 4 (1997).[38]

([37]) Eurostat (2000) op. cit.

([38]) The table clearly shows the impossibility of fully comparing the distribution of these variables among countries. For instance, to the question 'Does the dwelling have hot running water?', Greece has a very high percentage (71 percent) of negative answers, high compared to other Southern European countries as well. The question 'Is the accommodation short of space?' seems to be affected by country-specific cultural differences. In the four Southern European countries the answer 'yes' is much more common than in the other countries. It is doubtful whether this level of difference corresponds to the real differences in the adequacy of the living space available to households. By contrast, questions relating, for instance, to the possession of durable goods are much more clear and comparable across countries – although they too may be subject to cultural variation: non-ownership from lack of resources may simply reflect prior expenditure preferences.

Enforced lack of widely desired possessions

The following six items represent enforced lack of widely desired consumer durable items. Respondents were asked about these items in the following format:[39] for each household it was established if the item was possessed/available, and if not, a follow-up question was asked to established whether this was due to an inability to afford the item concerned. A household is considered to be deprived only if the absence is stated to be due to lack of resources.

1. A car or van.
2. A colour TV.
3. A video recorder.
4. A microwave.
5. A dishwasher.
6. A telephone.

Absence of basic housing facilities

Three items relate to absence of housing facilities so basic that one can presume all households would wish to have them:

7. A bath or shower.
8. An indoor flushing toilet.
9. Hot running water.

Problems with accommodation and the environment

A further set of items relating to problems with accommodation and the environment contained the implicit assumption that households wish to avoid such difficulties. These include the following eight items:

10. Shortage of space.
11. Noise from neighbours or outside.
12. Too dark/not enough light.
13. Leaky roof.
14. Damp walls, floors, foundation etc.
15. Rot in window frames or floors.
16. Pollution, grime or other environmental problems caused by traffic or industry.
17. Vandalism or crime in the area.

Lack of ability to afford most basic requirements

For some items the absence and affordability elements were incorporated into a single question, as follows: 'There are some things many people cannot afford even if they would like them. Can I just check whether your household can afford these if you want them'. The following six items were administered in this fashion in ECHP:

18. Keeping the home (household's principal accommodation) adequately warm.
19. Paying for a week's annual holiday away from home.
20. Replacing any worn-out furniture.
21. Buying new, rather than second hand clothes.
22. Eating meat chicken or fish every second day, if the household wanted to.
23. Having friends or family for a drink or meal at least once a month.

([39]) Employed by Mack, J. and Lansley, G. (1985), *Poor Britain*, Allen & Unwin, London.

Inability to meet payment schedules

The final item (based on three separate variables in the ECHP Users' Data Base.) relates to arrears:

24. Payment of scheduled mortgage payments, utility bills or hire purchase installments.

A household is considered as experiencing deprivation in terms of this item if it was unable at any time during the past twelve months to pay scheduled mortgage payments, utility bills or hire purchase installments.

6.2. Identification of underlying dimensions

While collectively the rich set of indicators identified above provides a comprehensive picture of living conditions, the usefulness of any indicator individually and in isolation is limited for meaningful analysis of deprivation and social exclusion within and across countries. These indicators, even if they were all and individually relevant for social exclusion analysis, tend to cluster together to form conceptually and empirically distinct dimensions or domains of lifestyle deprivation and social exclusion. A study based on Irish data suggests not only that distinct dimensions of deprivation exist, but that these are differentially related to income.[40] These dimensions, in turn, can be related to each other to a lesser or greater degree, and furthermore, not in the same way in different countries. Attention has to be paid to the manner in which the various items 'hang together'. The first stage in an analysis of lifestyle deprivation is therefore to examine systematically the range of deprivation items to see whether the items cluster into distinct groups.

One way to proceed would be to construct a summary index of deprivation employing all 24 items. However, the fact that relatively little attention has been paid to the manner in which items cluster together and whether it is appropriate to combine them into a single index is unfortunate, because ignoring such dimensionality may lead to misleading conclusions regarding the determinants of deprivation.

The analysis of Irish data (employing a somewhat different but overlapping set of items to those used in this report) identified three dimensions labeled basic, secondary and housing-related deprivation.[41] The particular Irish data set used included more items relating to extreme deprivation than does the ECHP, while the latter contains a much wider range of items relating to housing and environmental deprivation. It could be expected, therefore, that in addition to basic, secondary and general housing-related factors identified in the earlier Irish study, further differentiation of problems relating to housing conditions and the environment would be useful. In order to test this hypothesis we made use of confirmatory factor analysis. For the preferred solution we proceeded to compare models for the EU countries taken as a whole with those that allow parameters to vary across countries.

The confirmatory factor analysis results showed a consistent improvement in fit across a range of indices as one moved from the original three-factor to a five-factor solution incorporating the two additional dimensions relating to housing and environmental problems. As to the choice of the particular form of the model, the constrained (and simpler) model for the EU countries taken as a whole performed as well as the unconstrained model that allowed parameters to vary across countries. We therefore proceed on the basis of the five-factor oblique constrained solution. On this basis, the dimensions of non-monetary or lifestyle deprivation identified are the following five:

- Basic lifestyle deprivation – comprising items such as food and clothing, a holiday at least once a year, replacing worn-out furniture, and the experience of arrears for scheduled payments (These items range from 18 to 24 in the above list).
- Secondary lifestyle deprivation – comprising items that are less likely to be considered essential such as a car, a phone, a colour television, a video, a microwave, and a dishwasher (These items range from 1 to 6).
- Housing facilities – housing services such as the availability of a bath or shower, an indoor flushing toilet and running water, facilities likely to be seen as essential (These items range from 7 to 9).

(40) See Nolan, B. and Whelan, C. T. (1996), *Resources, Deprivation and the Measurement of Poverty*, Oxford, Clarendon Press.
(41) See Callan, T. *et al*. (1993), 'Resources Deprivation and the Measurement of Poverty', *Journal of Social Policy*, Vol. 22, No. 2, pp.141-172

- Housing deterioration – the existence of problems such as a leaking roof, dampness and rot in window frames and floors (These items range from 13 to 15).
- Environmental problems – problems relating to noise, pollution, vandalism and inadequate space and light (These items range from 10 to 12, plus 16 and 17)[42].

The next logical step is to seek a way to combine all the individual indicators (and hence the various underlying dimensions) into a single summary index of the degree of non-monetary or lifestyle deprivation. This would need to consider weights for each of the 24 lifestyle indicators in EU countries. These weights are reported in Table A6.2 of Annex 3 of this report. The methodology used to estimate these weights is outlined in Chapter 3 and described in more elaborated fashion in Annex 2.

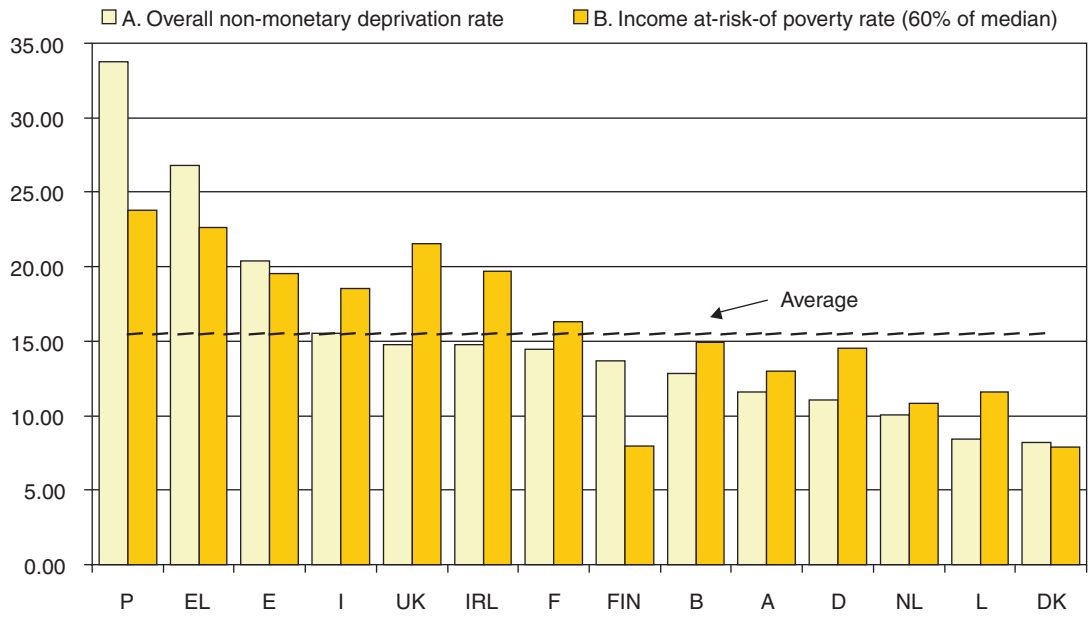
Such a single overall index can provide a powerful tool for cross-sectional and longitudinal analysis of lifestyle deprivation within and across countries, and greatly enrich the picture emerging from the study of income poverty risk alone. However, it should be kept in view that putting together all the information into a single index and simply ignoring the different underlying dimensions of deprivation can lead to misleading conclusions regarding the determinants of deprivation. For this reason in what follows, besides reporting on the analysis using a single index of overall lifestyle deprivation we report also on analyses that relate to the above five dimensions separately.

6.3. Cross-sectional analysis of deprivation

6.3.1. Index of overall non-monetary or lifestyle deprivation

Table 6.1 shows the overall index of non-monetary or lifestyle deprivation constructed as a weighted average of lack of individual items, and its relationship to measure of income disparity and levels. It is seen that lifestyle deprivation increases with increasing risk levels of income poverty and declines with the increasing level of income in the country. In so far as less well-off countries in the EU also tend to be subject to greater inequality of income (a fact noted in Chapter 4), the non-monetary deprivation index shows a greater range of variation among the Member States, with particularly large values for Portugal and Greece.

Figure 6.1: Rates of non-monetary deprivation and income at-risk-of poverty



(42) For further discussion see Whelan, C.T. et al (2001), "Income, Deprivation and Economic Strain: An analysis of the European Community Household Panel", *European Sociological Review*, 17, 4.357-372

In fact, the deprivation index reflects both the relative and absolute dimensions of the levels of living. It is an 'absolute' measure in the sense that it reflects the actual lack of various possessions and facilities to which individuals and households are subject. However, the significance (in statistical terms, the weight) given to the lack of a particular item is determined in the 'relative' context of the level and distribution of the lack in the national population of which the individual forms a part. This is in contrast to the income at-risk-of poverty rate which reflects only the relative distributional aspects, and the mean or median income which reflect only the absolute levels.

Table 6.1 Non-monetary or of lifestyle deprivation rate, compared with income at-risk-of poverty rate and median income

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	average
A. Overall non-monetary deprivation rate	13	8	11	27	20	14	15	16	8	10	12	34	14	15	15.5
B. Income at-risk-of poverty rate (60% of median)	15	8	15	23	20	16	20	19	12	11	13	24	8	22	15.5
C. Median income (PPS x 1000)	13.7	13.7	13.2	7.3	7.9	11.9	9.7	9.2	19	12.1	13.3	6.5	10.5	13.2	11.5
D. Ratio B/C (re-scaled)	11	6	11	30	24	13	20	20	6	9	9	36	7	16	15.5

Rows A and D have been scaled to give the same EU-15 simple average as row B.
Correlation between A and D
All 14 countries with data available 0.95
income at-risk-of poverty rate (60% of national median) 0.99
EU-15 (row A weighted by country population size) 15.0
Data sources: all 1997 survey, except the following:
D and UK: Data refer to original ECHP 1996 sample for row A, and to the national panels 1997 for row B
L: Data for both rows A and B refer to original ECHP 1996 sample

A most noteworthy finding in Table 6.1 is that the non-monetary deprivation index varies closely with the ratio of the at-risk-of (income) poverty rate to the national median income. The fourth row of the table shows this ratio scaled to the same level as the deprivation index in the first row, i.e. to the unweighted average of 15.5 over the countries. The two measures turn out to be highly correlated: the correlation is 0.95 for the 14 countries with data available, and increases to 0.99 for the 10 countries excluding the four most divergent cases (Denmark, Finland, Ireland and Italy). Such a remarkably high degree of consistency between two different types of measures, constructed independently from different survey questions and using different statistical methodologies, is clearly very reassuring regarding the underlying quality and consistency of ECHP data.

6.3.2. Variation across dimensions of deprivation

Table 6.2 shows the non-monetary deprivation indices for 1997 separately for each of the five dimensions identified earlier: basic and secondary lifestyle deprivation, lacking housing facilities, and problems relating to housing and environmental deterioration.

Table 6.2 Non-monetary deprivation index: variation by country and dimension of deprivation, 1997

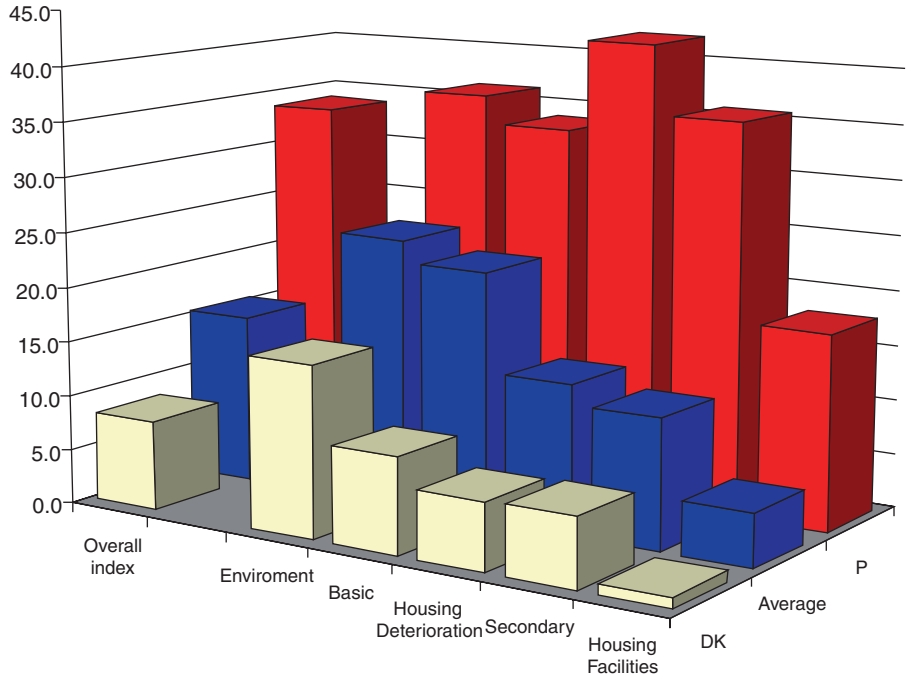
	6.2A. Deprivation index															
	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	Average	EU-14
Overall index	13	8	11	27	20	14	15	16	8	10	12	34	14	15	15.5	15.0
Index according to dimension of deprivation:																
Enviroment	23	16	22	26	33	26	19	33	18	23	17	36	25	28	24.6	26.7
Basic	16	9	13	60	29	21	20	28	12	11	16	34	26	22	22.6	22.0
Housing Deterioration	13	6	7	19	19	16	11	7	9	12	10	42	5	15	13.5	12.9
Secondary	7	6	9	23	17	7	16	11	4	4	9	36	7	10	11.8	10.9
Housing facilities	3	1	3	25	2	3	3	2	2	1	3	18	3	0	4.8	3.1

6.2B. Pattern of variation by dimension	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	Average	EU-14
Overall pattern by country	0.83	0.53	0.72	1.73	1.32	0.94	0.95	1.01	0.55	0.65	0.75	2.18	0.89	0.95	1.00	
Pattern by dimension, relative to the EU average																
Overall	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Enviroment	1.06	1.10	1.14	0.57	0.94	1.03	0.75	1.22	1.22	1.31	0.85	0.62	1.08	1.11	1.00	1.72
Basic	0.86	0.74	0.85	1.57	0.99	1.00	0.94	1.26	1.03	0.74	0.95	0.70	1.32	1.06	1.00	1.43
Housing Deterioration	1.15	0.88	0.78	0.81	1.11	1.27	0.84	0.52	1.18	1.34	0.98	1.46	0.44	1.23	1.00	0.85
Secondary	0.81	1.09	1.15	1.18	1.19	0.68	1.48	0.98	0.66	0.53	1.13	1.48	0.70	0.94	1.00	0.71
Housing Facilities	0.99	0.48	1.01	3.70	0.35	0.86	0.72	0.57	0.82	0.28	1.15	2.13	0.89	0.06	1.00	0.25

Figures in 6.2B show pattern of variation by dimension with the country, relative to the average of these patterns over countries
For D, UK and L, data refer to 1996 original ECHP surveys. All other data are for 1997 surveys.

Particularly noteworthy values in Table 6.2 are the very high levels of basic lifestyle deprivation in Greece, housing deterioration in Portugal, and the lack of basic housing facilities in both these countries. By contrast, very low deprivation in relation to basic housing facilities is reported in the Netherlands and the United Kingdom.

Figure 6.2: Patterns of non-monetary deprivation



Panel B of the table has been constructed to bring out the pattern of variation by dimension within individual countries more clearly. Firstly, the pattern of variation by dimension was obtained for each country by taking the ratio of its dimension indices to its overall deprivation index. Then each national pattern is divided by the average of these patterns over EU countries. The resulting figures thus abstract the effects of variations both in the overall level across countries, and across dimensions at the EU level. A figure above 1.0 in the table indicates that, taking into account the overall deprivation index in the country and in relation to the overall EU-level pattern of variation by dimension, the country has a higher level of deprivation in the dimension concerned. In contrast, a figure below 1.0 indicates that, taking into account the overall deprivation index in the country and in relation to the overall EU-level pattern of variation by dimension, the country has a lower level of deprivation in the dimension concerned.

In a number of countries, the structure across dimensions is quite similar to that in the EU on the average (the figures in Panel B being close to 1.0): this is in particular the case for Austria, Belgium and Germany, and except for relatively low deprivation in the housing facilities dimension, for the UK and Denmark as well.

In these relative terms the dimensions with the highest levels of deprivation include:

- Basic housing facilities in Greece and Portugal. The relative levels are much lower in Spain, Italy, Denmark and, as noted earlier, in the Netherlands and the UK.
- Basic lifestyle aspects in Greece and Finland, and to a lesser extent in Italy.
- Housing deprivation is reported to be above average in Portugal, France and the UK, and to a lesser extent in Luxembourg and Belgium.
- Environmental deprivation is above average in the Netherlands, Luxembourg, Italy, and to a lesser extent in the UK and Germany.
- Secondary lifestyle deprivation is, in relative terms, above average in Ireland and Portugal, followed by Spain and Greece, and to a lesser extent in Germany.

6.3.3. The social profile of non-monetary or lifestyle deprivation

The social profiles of deprivation emerging from this analysis of non-monetary aspects are similar to those from the analysis of the risk of income poverty. Overall the major difference is that social differentials in terms of non-monetary indicators are generally less marked, often significantly so.

The tables have been constructed as follows. The average of the non-monetary deprivation index over individuals in a group gives a measure of the situation of the group. The ratio of this to the deprivation index for the population as a whole provides an indicator of the relative position of the group in the population. A value of over 100 means that the group concerned is subject to a higher level of non-monetary deprivation compared with the population as whole. A value under 100 indicates the group to be relatively advantaged. Table 6.3 shows results by characteristics or social position of the household and Table 6.4 the same by characteristics or social position of the individual person.

Table 6.3 Relative non-monetary or lifestyle deprivation index, according to social position of the household, 1997 relative to the deprivation index for the national population as a whole

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	Average	EU-14
Overall deprivation index at national level	12.8	8.2	11.1	26.8	20.4	14.5	14.7	15.6	8.5	10.1	11.6	33.8	13.7	14.8	15.45	15.0
Total national population (=100 by definition)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Single person households	225	256	161	136	114	117	106	135	49	237	148	105	188	127	141	130
male aged 30-64	146	159	122	101	94	127	124	101	135	119	112	148	153	130	125	109
male aged 65+	112	88	110	123	102	99	79	134	102	69	111	126	56	85	104	100
female under 30	174	269	148	130	100	146	147	142	133	224	177	74	217	204	148	139
female aged 30-64	147	207	145	122	93	122	89	116	98	158	123	120	136	114	123	116
female aged 65+	124	88	143	112	127	103	95	119	89	99	117	141	79	89	113	110
2 or more adults without children																
2 adults, at least one aged 65+	81	51	74	106	103	73	69	94	72	72	81	103	74	78	86	85
2 adults, both aged under 65	83	97	77	96	95	88	80	79	107	83	87	83	97	76	87	76
3 or more adults	71	49	78	106	94	88	85	95	84	69	72	108	66	73	87	93
Households with dependent children																
Single parents with 1or more dependent children	197	234	208	104	105	162	194	126	139	241	159	110	161	193	153	162
2 adults with 1 dependent child	86	86	81	83	82	90	79	91	81	85	104	75	101	89	85	86
2 adults with 2 dependent children	80	88	100	84	84	77	57	95	86	85	91	75	80	96	83	90
2 adults with 3 or more dependent children	113	107	152	94	107	126	132	124	150	110	138	160	96	172	128	131
Other household with dependent children	114	81	85	121	118	141	118	115	114	97	106	110	88	95	110	124
Household's educational achievement*																
high, all adults	90	96	93	70	54	84	45	103	71	90	99	63	79	68	75	78
high, some but not all adults	70	82	69	80	71	85	48	63	71	62	74	52	83	63	68	68
middle, all adults	107	125	105	90	71	86	65	76	70	101	90	67	124	105	87	83
middle, some but not all adults	90	65	103	113	91	100	85	94	74	91	98	86	99	88	93	94
low	129	137	129	113	125	127	161	120	140	148	146	111	108	146	128	140
Work intensity of household (proportion worked of time available to adults in the household, past year)																
none	178	199	148	100	131	149	197	114	121		125	122	145	185	145	144
<25%	172	170	130	142	151	162	205	172	126		168	101	138	238	158	185
25-50%	87	147	120	129	102	125	89	116	55		128	95	136	122	114	125
50-75%	68	113	93	96	93	106	93	95	105		101	109	97	82	99	98
75% to less than100%	88	79	94	97	85	124	65	90	101		102	103	81	71	94	96
all (100%)	74	75	84	87	65	75	53	74	102		82	86	79	78	80	76
coefficient of variation over subgroups (%)	37	49	29	17	22	24	45	22	28	47	25	26	35	41	24	26
number of subgroups	25	25	25	25	25	25	25	25	25	19	25	25	25	25	25	25

* High: completed at least ISCED 5-7; middle: completed ISECD 3; low: completed at most ISECD 0-2

Table 6.4 Relative non-monetary or lifestyle deprivation index, according to social position of the individual, 1997 relative to the deprivation index for the national population as a whole

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	Average	EU-14
Overall deprivation index at national level	12.8	8.2	11.1	26.8	20.4	14.5	14.7	15.6	8.5	10.1	11.6	33.8	13.7	14.8	15.45	15.5
Total national population (=100 by definition)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Gender																
men	96	98	94	102	99	100	100	99	101	97	97	101	99	98	99	98
women	104	102	105	98	101	100	100	101	99	103	103	100	101	102	101	102
Age																
<18	112	104	122	95	107	112	123	107	120	107	116	113	102	129	111	115
18-24	110	125	101	101	101	115	102	105	100	139	92	92	132	97	105	108
25-34	93	143	106	109	100	115	91	105	112	109	116	97	121	100	106	105
35-44	98	113	98	88	92	94	96	94	101	96	88	92	101	103	95	95
45-54	101	71	80	93	90	87	89	90	80	87	88	82	98	83	88	86
55-64	86	76	85	103	103	92	88	96	88	84	84	96	81	80	91	90
>=65	96	67	99	111	103	83	74	101	80	80	97	115	71	81	95	95
Adult/child status																
adult	96	101	96	102	99	97	91	99	95	97	97	99	100	91	98	96
dependent child	112	102	118	93	102	110	119	103	112	108	111	103	100	131	107	112
Citizenship																
EU citizenship	94	97	94	101	99	93	92	98	92	97	91	96	99	90	96	96
foreign citizenship	168	201	177	145	101	214	52	137	227	147	224	123	174	174	152	166
Social class																
never worked	122	93	99	98	104	120	124	117	85	119	90	80	111	140	105	120
Non-Manual*	76	104	78	79	63	72	49	72	73	82	80	62	91	67	72	67
a. managers in large establishments and large proprietors (I)	67	70	59	69	65	64	42	65	71	59	56	60	57	59	62	57
b. white collar employees and managers (II-III)	78	112	80	79	62	72	51	73	73	86	85	62	96	68	74	69
self employed with employees (IVa)	76	57	73	78	59	67	45	67	83	97	101	55	75	80	70	73
self employed without employees (IVb)	83	131	104	87	85	90	55	101	89	102	105	89	80	78	89	95
farmers and smallholders (IVc)	97	42	82	108	116	71	84	91	46	76	90	105	55	61	87	115
manual workers (V-VII)	95	94	112	117	109	106	112	104	126	107	105	112	115	110	110	108
Employment precarity of individual (Unemployment experience)																
unemployed for 6 months or longer	175	188	229	131	143	184	232	159	167		219	130	168	211	175	180
unemployed for under 6 months	146	129	141	113	111	157	128	118	154	158	144	128	126	135	131	136
employee with some unemployment in past year	126	138	144	152	109	133	123	115	96		133	111	123	118	128	130
other employee with some unemployment experience (past 5 years)	88	115	117	106	91	113	98	102	227	121	121	113	94	103	110	105
employee with no unemployment experience (past 5 years)	70	68	75	89	75	78	63	81	92	75	81	85	78	66	78	75
currently inactive	106	109	98	102	102	97	96	101	87	100	96	101	101	101	100	101
Most frequent activity, past year																
Employed	75	86	85	101	84	90	73	90	103		90	95	90	80	91	85
Self-employed	79	64	75	88	84	80	62	78	73		91	80	67	68	80	88
Unemployed	168	178	199	129	135	172	198	148	232		172	126	162	190	164	167
Retired	95	89	102	111	102	83	70	94	87		95	114	85	83	99	92
Other economically inactive	119	149	96	98	101	115	103	106	85		99	89	126	114	108	112
Work intensity of person (proportion worked of time available, past year)																
none	122	169	113	102	107	123	129	108	90		109	96	129	128	116	117
<25%	127	196	103	122	118	119	125	107	145		117	80	152	111	121	122
25-50%	102	150	134	119	120	116	76	129	153		106	126	133	132	124	129
50-75%	105	121	126	168	101	122	87	121	140		122	116	127	123	126	127
75% to less than100%	102	123	130	94	108	136	97	91	118		123	104	101	87	109	111
all (100%)	72	80	80	91	79	85	67	85	99		86	88	80	75	85	82
main activity status accroding to time spent (past year)																
activity>inactivity; work>unemployment	74	85	83	97	83	89	69	87	100		90	89	87	78	88	85
activity>inactivity; unemployment>work	164	179	198	128	132	170	196	146	247		175	126	162	189	164	165
inactivity>activity	110	163	99	99	100	109	105	100	90		101	92	119	117	108	107
coefficient of variation over subgroups (%)	26	35	33	19	18	30	41	20	41	22	31	19	27	34	24	25
number of subgroups	41	41	41	41	41	41	41	41	41	25	41	41	41	41	41	41

* The non-manual category in the '3 Category Erikson/Goldthorpe Schema' has been broken-down into (a) manages and (b) other white-collar employees.

To bring this out, Table 6.5 (for household characteristics) and Table 6.6 (for individual characteristics) show the results averaged over countries. In the tables, the first column shows the averaged overall non-monetary or lifestyle deprivation index for various population groups. The next column shows the same for the income at-

risk-of poverty rate.[43] The third column shows the ratio of these two measures to bring out the comparison. A figure over 1.0 means that for a group in a favourable situation in terms of the income at-risk-of poverty rate, the situation is not so favourable in terms of non-monetary deprivation; or that for a group in an unfavourable situation in terms of the income at-risk-of poverty rate, the situation is even more unfavourable in terms of the non-monetary deprivation. A figure below 1.0 means the reverse: for a group in an unfavourable situation in terms of the income at-risk-of poverty rate, the situation is less unfavourable in terms of the non-monetary deprivation; and for a group in a favourable situation in terms of the income at-risk-of poverty rate, the situation is even more favourable in terms of non-monetary deprivation.

Table 6.5 Non-monetary or lifestyle deprivation index, in relation to income at-risk-of poverty rate (simple EU average, 1997) according to social position of the household

	deprivation index	at-risk-of poverty rate	ratio dep/pov
Overall deprivation index at national level	15.45	15.45	1.00
Total national population (=100 by definition)	100	100	1.00
Single person households			
male under 30	141	255	0.55
male aged 30-64	125	86	1.45
male aged 65+	104	121	0.86
female under 30	148	297	0.50
female aged 30-64	123	116	1.06
female aged 65+	113	189	0.60
2 or more adults without children			
2 adults, at least one aged 65+	86	99	0.87
2 adults, both aged under 65	87	60	1.45
3 or more adults	87	51	1.71
Households with dependent children			
Single parents with 1or more dependent children	153	200	0.76
2 adults with 1 dependent child	85	60	1.43
2 adults with 2 dependent children	83	71	1.17
2 adults with 3 or more dependent children	128	179	0.71
Other household with dependent children	110	124	0.89
Household's educational achievement*			
high, all adults	75	60	1.26
high, some but not all adults	68	34	1.98
middle, all adults	87	76	1.15
middle, some but not all adults	93	80	1.16
low	128	169	0.75
Work intensity of household (proportion worked of time available to adults in the household, past year)			
none	145	244	0.59
<25%	158	261	0.61
25-50%	114	150	0.76
50-75%	99	85	1.17
75% to less than100%	94	44	2.13
all (100%)	80	39	2.04
coefficient of variation over subgroups (%)	24	61	43
number of subgroups	25	25	25

Notes at-risk-of poverty rate corresponds to 60% of national median income.
For D, UK and L, data refer to 1996 original ECHP surveys. All other data are for 1997 surveys.
* High: completed at least ISCED 5-7; middle: completed ISECD 3; low: completed at most ISECD 0-2

The attenuation of differentials can be clearly seen when we move from income to non-monetary measures. Both age and gender differentials are reduced among individuals living in single-person households (Table 6.5). The situation of those aged 30-64 is markedly less favourable; that of younger persons (aged <30) is markedly less unfavourable, and that of older persons (aged 65+) is on the average even better than that of persons aged 30-64 years. Accumulation of possessions with age may be one of the factors involved with regard to older persons. The relatively favourable position of younger persons (aged <30) is probably not unrelated to the fact that they often can continue to rely on support from parents through transfers-in-kind. Uncontrolled for household type, the gender gap is almost entirely absent, and child/adult difference is considerably narrowed (Table 6.6).

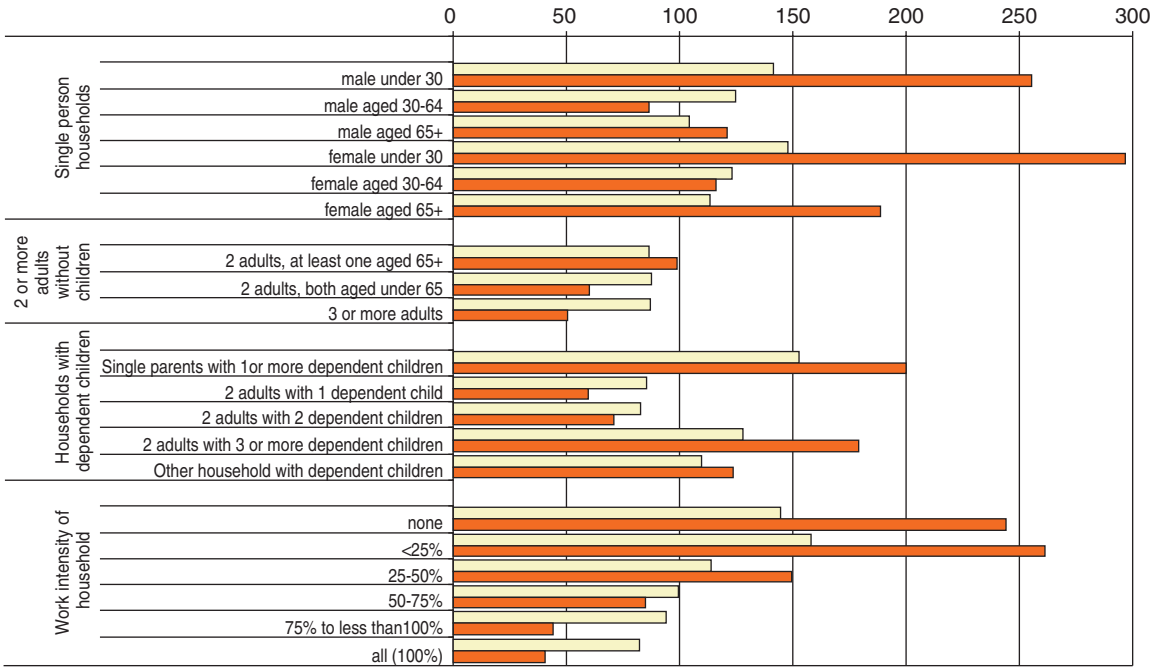
([43]) For the total population, these two indices have been scaled to be equal. The income at-risk-of poverty rates presented in the tables are those computed using the fuzzy set procedure described in Chapter 3 and Annex 2.

Table 6.6 Non-monetary or lifestyle deprivation index, in relation to income at-risk-of poverty rate (simple EU average, 1997) according to social position of the individual

	deprivation index	at-risk-of poverty rate	ratio dep/pov
Overall deprivation index at national level	15.45	16.0	0.97
Total national population (=100 by definition)	100	100	1.00
Gender			
men	99	95	1.05
women	101	105	0.96
Age			
<18	111	122	0.91
18-24	105	136	0.77
25-34	106	79	1.35
35-44	95	77	1.24
45-54	88	75	1.17
55-64	91	86	1.06
>=65	95	121	0.78
Adult/child status			
adult	98	93	1.05
dependent child	107	119	0.90
Citizenship			
EU citizenship	96	91	1.05
foreign citizenship	152	172	0.88
Social class			
never worked	105	187	0.56
Non-Manual*	72	29	2.46
a. managers in large establishments and large proprietors (I)	62	14	4.28
b. white collar employees and managers (II-III)	74	32	2.32
self employed with employees (IVa)	70	94	0.74
self employed without employees (IVb)	89	127	0.70
farmers and smallholders (IVc)	87	205	0.42
manual workers (V-VII)	110	99	1.11
Employment precarity of individual (Unemployment experience)			
unemployed for 6 months or longer	175	254	0.69
unemployed for under 6 months	131	123	1.06
employee with some unemployment in past year	128	143	0.89
other employee with some unemployment experience (past 5 years)	110	61	1.81
employee with no unemployment experience (past 5 years)	78	46	1.71
currently inactive	100	129	0.78
Most frequent activity, past year			
Employed	91	39	2.32
Self-employed	80	115	0.69
Unemployed	164	225	0.73
Retired	99	123	0.81
Other economically inactive	108	153	0.70
Work intensity of person (proportion worked of time available, past year)			
none	116	148	0.79
<25%	121	210	0.58
25-50%	124	139	0.90
50-75%	126	111	1.14
75% to less than100%	109	65	1.66
all (100%)	85	46	1.84
main activity status accroding to time spent (past year)			
activity>inactivity; work>unemployment	88	51	1.74
activity>inactivity; unemployment>work	164	225	0.73
inactivity>activity	108	137	0.78
coefficient of variation over subgroups (%)	24	49	59
number of subgroups	41	41	41

Notes at-risk-of poverty rate corresponds to 60% of national median income.
For D, UK and L, data refer to 1996 original ECHP surveys. All other data are for 1997 surveys.
* The non-manual category in the '3 Category Erikson/Goldthorpe Schema' has been broken-down into (a) managers and (b) other white-collar employees.

Figure 6.3 Lifestyle deprivation index and income at-risk-of poverty rate (simple EU average, 1997) according to social position of the household



For households with two or more adults without children, there are almost no differences among the various sub-categories. The situation of single-parent households remains disadvantaged, but to a somewhat lower degree in terms of non-monetary indicators than in terms of income at-risk-of poverty. At the other end, the situation of large households (e.g. households with many children) is less unfavourable in terms of non-monetary indicators than in terms of income at-risk-of poverty.

Non-monetary differentials by the highest level of education in the household remain, but again are notably reduced compared to income differentials. Similarly, differentials by social class are reduced, except for the somewhat increased relative disadvantage of manual workers. The unemployed definitely remain disadvantaged, but the position of the self-employed appears better vis-à-vis employees when considered in terms of non-monetary measures, compared to that in terms of income.[44]

The overall reduction in variability across population subgroups is summarized by the coefficient of variation (cv) of the measures shown at the bottom of the tables. The coefficient of variation is smaller by a factor of more than two for non-monetary compared to income measures (cv of 24 versus 61 percent) for variation by household characteristics, and by a factor of two (cv 24 versus 49 percent) for variation by personal characteristics.

The most noteworthy exception to the above is that overall the unfavourable position of non-citizens in terms of income at-risk-of poverty measures remains equally unfavourable when considered in terms of non-monetary measures of lifestyle deprivation.

Table 6.7 summarizes the extent of variability across population subgroups for individual countries, again comparing non-monetary and income measures. The relationships are quite consistent across the countries. Socio-economic differentials are found to be more pronounced than the average in Denmark, the Netherlands and Ireland, both for non-monetary and income measures. Differentials are significantly below average in Greece, Spain and Italy for non-monetary measures, but are near the average level in the case of income measures.

([44]) With regard to the relative disadvantage of the self-employed concerning income, it should be noted that this could also be the result of under-reporting of income for this group.

Table 6.7 Coefficients of variation of deprivation and at-risk-of poverty indices over subgroups within countries (1997)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	Average	EU-14
non-monetary or lifestyle deprivation index																
coefficient of variation according to social position of the:																
household	37	49	29	17	22	24	45	22	28	47	25	26	35	41	24	26
individual	26	35	33	19	18	30	41	20	41	22	31	19	27	34	24	25
income at-risk-of poverty rate																
coefficient of variation according to social position of the:																
household	63	103	73	51	64	58	79	59	99	113	56	60	97	66	61	57
individual	59	78	61	46	43	54	57	55	93	67	55	42	62	59	49	48

Data for D, UK and L are for 1996.
Number of population subgroups analysed:
by household characteristics =25 (except NL=19)
by personal characteristics =41 (except NL=25-27)

6.3.4. Trend over time

Table 6.8 shows cross-sectional trends in the non-monetary index of lifestyle deprivation, by country and dimension of deprivation between 1994 and 1997. For four countries, the period covered is only 3 years because of data availability: for Germany, the United Kingdom and Luxembourg 1994-1996 using the original ECHP samples, and for Austria for 1995-1997.[45] For Finland, data refer to 1996 and 1997 only and are therefore not strictly comparable. The table shows non-monetary deprivation rates for 1994 and 1997 and the percentage reduction in those over the period, both for the overall index and for indices by dimension of deprivation.

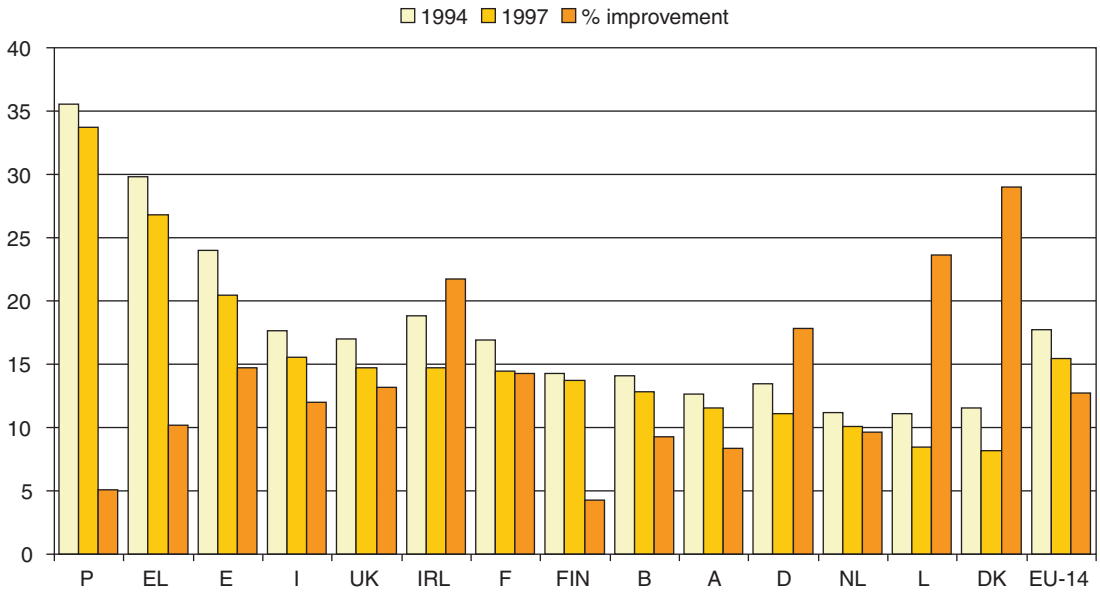
Table 6.8 Cross-sectional trends in the non-monetary index of lifestyle deprivation, by country and dimension of deprivation. 1994 to 1997.

		B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	UK	Average	EU-14
Overall																	
	1994	14	12	13	30	24	17	19	18	11	11	13	36	14	17	17.7	17.4
	1997	13	8	11	27	20	14	15	16	8	10	12	34	14	15	15.5	15.0
% improvement		9	29	18	10	15	14	22	12	24	10	8	5	4	13	12.8	13.5
Enviromental deterioration																	
	1994	24	17	23	29	40	29	20	33	20	22	19	34	25	32	26.1	29.0
	1997	23	16	22	26	33	26	19	33	18	23	17	36	25	28	24.6	26.7
% improvement		4	8	5	10	17	12	3	3	13	-4	9	-6	-2	11	6.0	8.0
Basic lifestyle deprivation																	
	1994	17	14	16	69	32	22	28	28	12	11	18	36	27	27	25.5	24.6
	1997	16	9	13	60	29	21	20	28	12	11	16	34	26	22	22.6	22.0
% improvement		9	38	17	12	10	7	30	1	-2	0	10	5	3	17	11.3	10.4
Housing Deterioration																	
	1994	16	9	11	25	22	19	13	12	10	15	11	42	5	20	16.5	16.6
	1997	13	6	7	19	19	16	11	7	9	12	10	42	5	15	13.5	12.9
% improvement		20	34	35	26	14	16	21	44	13	21	15	0	2	22	18.0	22.6
Secondary lifestyle deprivation																	
	1994	8	11	11	31	21	9	23	13	7	5	9	42	8	11	14.9	13.3
	1997	7	6	9	23	17	7	16	11	4	4	9	36	7	10	11.8	10.9
% improvement		4	43	15	28	16	25	31	19	41	28	-4	15	12	13	20.8	18.1
Lacking basic housing facilities																	
	1994	5	2	5	13	3	4	4	3	3	1	5	25	3	0	5.4	4.0
	1997	3	1	3	25	2	3	3	2	2	1	3	18	3	0	4.8	3.1
% improvement		32	53	49	-96	43	13	33	14	49	45	29	28	11	38	10.3	22.0

Notes:
Data refer to a 3 year period 1994-96 for D, UK and L; and to 1995-97 for A.
Data for Finland refer to 1996-97 only.
All computed indices have been scaled by a constant factor, so that the overall index averaged over countries numerically equals the corresponding averaged income at-risk-of poverty rate (at 60% of median) for 1997 (15.88%)

([45]) As noted earlier, all non-monetary measures have been scaled by a constant to make the value of the overall deprivation index averaged over countries for 1997 to agree with the similarly averaged income poverty rate for 1997. (The exceptions are Germany, the UK and Luxembourg where the deprivation index is for 1996 and is based on the original ECHP surveys, while the income at-risk-of poverty rate is for 1997 based on the national panels which replace the original ECHP from that year.)

Figure 6.4: Changes of non-monetary deprivation index 1994-1997



Averaged over the countries, there is an improvement (i.e. reduction in the level of non-monetary deprivation) of 13 percent, with large improvements of 20 to 30 percent in Denmark, Luxembourg and Ireland, and the smallest improvement recorded in Finland (4 percent). These are associated with improved levels of average income in EU countries over the period, whereby they are generally not paralleled in the relativistic income at-risk-of poverty rates.

Similar average improvement has been recorded in the basic lifestyle deprivation indicator, with outstanding improvements in Denmark (38 percent) and Ireland (30 percent).

There is an average of 6 percent reduction in deprivation associated with environmental problems, with the highest improvement (17 percent) recorded in Spain.

In relation to housing deterioration and secondary lifestyle deprivation problems, there is a larger (18 to 20 percent) improvement on the average, with major improvements reported in relation to housing in Italy and Germany (35 percent or over), and in relation to secondary lifestyle indicators in Luxembourg and Denmark (over 40 percent).

Basic housing indicators record a 10 percent relative improvement, but this is from a small base. The data from Greece are clearly out of line (showing a nearly doubling of the already high deprivation index on this dimension). It is plausible that this results from some data problems rather than being the reflection of a real deterioration in the basic housing situation in the country.

6.4. Longitudinal analysis of non-monetary or lifestyle deprivation

6.4.1. Any-time and persistent deprivation

Non-monetary aspects of lifestyle deprivation can be studied by following up the same ('balanced') panel of individuals over time. Table 6.9 shows various measures computed from three such panels:

A. Individuals enumerated each year for three years 1994 to 1996. This covers 12 countries of EU-15, with the exception of Sweden, Finland and Austria. In the surveys covered, individuals not enumerated for all the three years are excluded from analysis.
B. Individuals enumerated each year for three years 1995 to 1997. This covers 10 countries of EU-15, including Austria. Data are not available for the remaining five (Sweden, Finland, Luxembourg, the UK and Germany). In the surveys covered, individuals not enumerated for all the three years are excluded from analysis.

C. Individuals enumerated throughout the full four year period 1994 to 1997. This covers 9 countries as above with the exception of Austria. In the surveys covered, individuals not enumerated for all the four years are excluded from analysis.

The table also shows income at-risk-of poverty rates for comparison with non-monetary deprivation indicators. For income distribution statistics, the same samples as above are used to construct the three panels, except for a different sample base in the UK and Germany. Income data covering the whole period 1994-1997 for these countries come from the existing national panels which replaced the original ECHP samples from 1997 onwards. (On the basis of the national panels, all the three sets A, B and C, can be constructed for these countries for income variables.)

Table 6.9 Indicators of any-time and persistent deprivation, and comparison with longitudinal income at-risk-of poverty

A. Panel (period) 1994-95-96	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
Overall non-monetary or lifestyle deprivation indicator														
source			ECHP						ECHP				ECHP	
mean indicator over period	14	11	12	28	23	16	17	16	9	10		34	16	17.1
any-time/mean deprivation	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.5	1.6	1.5		1.3	1.4	1.46
persistent/mean deprivation	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.6		0.7	0.6	0.59
income at-risk-of poverty rate (60% of median)														
source			ECHP						ECHP				ECHP	
mean rate over period	18	10	14	21	20	17	19	18	12	10		23	19	16.9
any-time/mean at-risk-of poverty rate	1.6	2.0	1.7	1.6	1.7	1.5	1.5	1.6	1.8	1.8		1.5	1.6	1.66
persistent/mean at-risk-of poverty rate	0.5	0.3	0.5	0.4	0.4	0.5	0.5	0.4	0.3	0.4		0.6	0.4	0.44

B. Panel (period) 1995-96-97	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
Overall non-monetary or lifestyle deprivation indicator														
mean indicator over period	13	10		27	21	15	16	15		10	12	34		17.4
any-time/mean deprivation	1.5	1.6		1.3	1.4	1.4	1.5	1.5		1.5	1.5	1.3		1.44
persistent/mean deprivation	0.5	0.5		0.7	0.6	0.6	0.6	0.6		0.6	0.6	0.8		0.60
income at-risk-of poverty rate (60% of median)														
mean rate over period	17	9	15	21	20	16	20	18		11	13	24	19	16.9
any-time/mean at-risk-of poverty rate	1.7	1.9	1.6	1.5	1.7	1.5	1.5	1.6		1.7	1.7	1.4	1.6	1.63
persistent/mean at-risk-of poverty rate	0.5	0.3	0.5	0.5	0.4	0.5	0.5	0.5		0.4	0.4	0.6	0.5	0.48

C. Panel (period) 1994-95-96-97	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
Overall non-monetary or lifestyle deprivation indicator														
mean indicator over period	14	10		28	22	15	16	16		10		34		18.4
any-time/mean deprivation	1.7	1.7		1.5	1.5	1.6	1.6	1.6		1.6		1.3		1.6
persistent/mean deprivation*	0.8	0.7		0.9	0.8	0.8	0.8	0.8		0.8		0.9		0.8
income at-risk-of poverty rate (60% of median)														
mean rate over period	18	9	13	21	20	16	19	18		10		23	19	16.9
any-time/mean at-risk-of poverty rate	1.8	2.3	1.9	1.8	1.9	1.7	1.7	1.9		2.0		1.6	1.8	1.85
persistent/mean at-risk-of poverty rate*	0.7	0.5	0.7	0.8	0.7	0.8	0.8	0.7		0.7		0.8	0.7	0.70

D. Most recent available mean non-monetary of lifestyle deprivation indicator	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
mean indicator	14	10	12	28	22	15	16	16	9	10	12	34	16	16.5
Ratio of non-monetary deprivation to income at-risk-of poverty indicator:														
any-time/mean rate	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.8	0.8	0.85
persistent/mean rate	1.1	1.4	0.8	1.1	1.2	1.1	1.1	1.2	1.3	1.2	1.4	1.1	0.8	1.14

S and FIN are excluded since longitudinal data covering at least three consecutive years are not available.
See also notes to Table 6.8
* 'Persistent' is taken to mean at-risk-of poverty or deprivation for at least 3 of the 4 years

The following three measures are shown in the table for each panel:

a) Mean indicator over the period. This is the average of the annual cross-sectional overall deprivation rates.
b) Ratio of any-time to the mean cross-sectional level of deprivation. At the micro-level, 'any-time deprivation' is the largest of the individual's deprivation propensities during the reference period. Its conventional counterpart is the proportion of persons in deprivation for at least one year during the period.
c) Ratio of persistent to the mean cross-sectional level of deprivation. At the micro-level, 'persistent deprivation' is the smallest of the individual's deprivation propensities during the reference period. Its conventional counterpart is the proportion of persons in deprivation for whole of the reference period.

In Table 6.9(D), at the micro-level, 'persistent deprivation' has been defined as the next-to-smallest of the individual's deprivation propensities during the reference period. Its conventional counterpart is the proportion of persons in deprivation for at least three of the four year reference period.

Overall, averaged over countries, the cross-sectional non-monetary deprivation rate is around 17 percent. The any-time rate is higher by a factor of around 1.5 over a three year period, meaning that 50 percent or so more persons are in the state of deprivation at some time during three years, compared to the cross-sectional rate at any one time (year). Around 60 percent of the persons in the state of deprivation at any one time are persistently in this state over the whole of the three year period.

By comparison, income poverty risk affects a larger proportion of the population at any particular time, yet a smaller proportion are persistently at risk relative to the cross-sectional at-risk-of poverty rates. Non-monetary or lifestyle deprivation tends to be more 'sticky', i.e. to affect the same individuals over time. Table 6.9(D) shows the difference between non-monetary and income indicators in this respect to be around 15 percent overall: the ratio of any-time to the mean cross-sectional deprivation rate is around 15 percent lower in the case of non-monetary indicators, compared to the same ratio for income poverty; the ratio of persistent to the mean cross-sectional deprivation rate is around 14 percent higher in the case of non-monetary indicators, compared to the same ratio for income poverty. These patterns are generally consistent across individual countries.

Across countries, we also see another consistent pattern. The ratio of any-time to cross-sectional rates varies inversely with the cross-sectional rate: the higher the level of deprivation in a country, the less it is likely to be 'shared' among different individuals. The any-time to cross-sectional ratio is, for instance, 1.3 in Portugal (with an overall deprivation rate of 34 percent), and 1.5 in Denmark (with a deprivation rate of 11 percent). Similarly, the ratio of persistent to cross-sectional rates varies directly with the cross-sectional rate: the higher the level of deprivation in a country, the more it is likely to persist among the same individuals. The persistent to cross-sectional ratios for Portugal and Denmark, or instance, are 0.7 and 0.5 respectively.

6.4.2. Pattern for four years 1994-1997

Finally, an attempt has been made in Table 6.10 to present a more complete picture covering a four year period 1994-97 for all the 13 EU Member States for which longitudinal data for at least three years are available. In Table 6.9 the results in panel C are not comparable to those in panels A and B because of the different lengths of reference periods involved. The following simplistic procedure has been used in constructing Table 6.10 from Table 6.9.

For each measure, a simple average over countries covered in panel C of Table 6.9 was calculated for all panels A-C. The ratio of the average (for the common set of countries) for panel C to that for panel A gives the factor by which statistics for countries covered in panel A but not in C (Germany, the UK and Luxembourg) are multiplied and then incorporated into panel C. The ratio of the average for panel C to that for panel B gives the factor by which statistics for countries covered in panel B but not in C (Austria) are multiplied and then incorporated into panel C.

Table 6.10 Indicators of mean, any-time and persistent non-monetary lifestyle deprivation, in comparison with income at-risk-of poverty rates, 1994-97 survey years, including estimates for countries with only 3 years of panel data: UK, A, D, L for non-monetary variables; A and L for income variables

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	UK	average
Overall non-monetary or lifestyle deprivation indicator														
mean indicator over period	14	10	12	28	22	15	16	16	9	10	12	34	16	16.6
any-time deprivation index	23	18	18	41	34	24	26	25	15	17	20	46	23	25.2
persistence deprivation index*	10	7	6	24	19	13	13	12	4	8	9	30	10	12.8
ratios:														
any-time/mean deprivation	1.7	1.7	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.3	1.4	1.56
persistent/mean deprivation*	0.8	0.7	0.5	0.9	0.8	0.8	0.8	0.8	0.5	0.8	0.7	0.9	0.6	0.74
Income at-risk-of poverty rate (60% of median)														
mean rate over period	18	9	13	21	20	16	19	18	12	10	12	23	19	16.2
any-time at-risk-of poverty rate	33	20	24	38	38	27	32	34	24	21	25	38	34	29.7
persistent at-risk-of poverty rate	13	5	9	16	14	12	14	12	6	7	7	19	14	11.3
ratios														
any-time/mean at-risk-of poverty rate	1.8	2.3	1.9	1.8	1.9	1.7	1.7	1.9	2.0	2.0	2.0	1.6	1.8	1.87
persistent/mean at-risk-of poverty rate*	0.7	0.5	0.7	0.8	0.7	0.8	0.8	0.7	0.5	0.7	0.6	0.8	0.7	0.68

* 'Persistent' is taken to mean at-risk-of poverty or deprivation for at least 3 of the 4 years
* 'Any-time' refers to deprivation for at least one year during the period
*D and UK: Non-monetary indicators are based on original ECHP samples (1994-96). Income at-risk-of poverty rates are based on exiting national panels (1994-97)

The resulting set (Table 6.10) is helpful in showing a more complete and consistent picture of the variation across countries than is possible from the original data.

On the average in a EU country, 25 percent of the population experienced non-monetary or lifestyle deprivation for at least one year during the four year period 1994-1997, and 13 percent experienced persistent deprivation (for at least three of these four years). The corresponding average cross-sectional deprivation rate prevailing at any one time was around 17 percent.

The rates were the highest for Portugal, the corresponding figures being 46 percent (i.e. almost half the national population) in any-time deprivation, 30 percent (i.e. nearly a third of the population) in persistent deprivation, with an average cross-sectional rate being 34 percent.

By contrast, in the Netherlands, Denmark and Luxembourg, the corresponding figures were: 15 to 18 percent in any-time deprivation; four to eight percent in persistent deprivation; and nine to 10 percent cross-sectionally at any one time.

6.5. Conclusions

In this chapter we analyzed the non-monetary or lifestyle indicators available in the ECHP and identified five dimensions:

- Basic lifestyle deprivation comprises items such as food and clothing, a holiday at least once a year, replacing worn-out furniture and the experience of arrears for scheduled payments.
- Secondary lifestyle deprivation covers items that are less likely to be considered essential such as a car, a phone, a colour television, a video, a microwave and a dishwasher.
- Deprivation with regard to housing facilities taps on deprivation with regard to facilities likely to be seen as essential, such as the availability of a bath or shower, an indoor flushing toilet and running water.
- Housing deterioration identifies the existence of problems such as a leaking roof, dampness and rot in window frames and floors.
- Deprivation with regard to the environment taps on environmental problems such as noise, pollution, vandalism and inadequate space and light.

The cross-sectional comparative analysis of the above deprivation dimensions showed a significant country variation. Thus Greece and Portugal display the highest levels of deprivation with regard to basic housing facilities as well as basic lifestyle deprivation. Housing deprivation is reported to be above average in Portugal, France, and the UK, and to a lesser extent in Luxembourg and Belgium. Environmental problems with regard to living conditions are more acute in the Netherlands, Luxembourg and Italy. Secondary lifestyle deprivation is, in relative terms, above average in Ireland and Portugal, followed by Spain and Greece, and to a lesser extent in Germany.

The social profile of lifestyle deprivation is not very different from that of income poverty risk, however the differentials are generally less marked. This also applies to resource-related variables like education or social class which were found to have the largest explanatory power with regard to the risk of income poverty. The most noteworthy exception is the situation of non-European citizens: their unfavourable position in terms of income poverty risk remains equally unfavourable with regard to non-monetary deprivation.

Finally, the longitudinal analysis of lifestyle deprivation showed clearly that like the risk of income poverty, non-monetary deprivation is 'sticky', i.e. it tends to affect the same individuals over time, indeed to a larger extent than income poverty risk. The difference between non-monetary and income indicators in this respect is around 15 percent.

7. Income Poverty Risk and Lifestyle Deprivation

In the previous chapter we began exploring the relationship between income poverty risk and non-monetary or lifestyle deprivation and could show that whilst there is clearly a relationship between the two, this tends to vary across countries and population sub-groups both in scope and scale. In this chapter we take this analysis further.

Our major concentration is on the dimensions of lifestyle deprivation identified in Chapter 6. To reiterate, these are as follows:

- Basic lifestyle deprivation – comprising items such as difficulty in affording a variety of food, clothing, a holiday at least once a year, replacing worn-out furniture, as well as the experience of falling into arrears on scheduled payments.
- Secondary lifestyle deprivation – comprising items that are less likely to be considered essential, such as a car, a phone, a colour television, a video a microwave and a dishwasher.
- Housing deterioration – the existence of problems such as a leaking roof, dampness and rotting in window frames and floors.
- Housing facilities – housing services such the availability of a bath or shower, an indoor flushing toilet and running water.
- Environmental problems – problems relating to noise, pollution, vandalism and inadequate space and light.

These deprivation dimensions, and their relationship to respondents' subjective experiences of economic strain, will be central to the analysis that follows. This chapter also includes items which have been central to debates on social exclusion such as health status, social relations and social participation.

In order to ensure comparability of lifestyle indicators it is necessary to take cross-sectional information for Germany, Luxembourg and the UK from Wave 3 and to conduct longitudinal analysis using the first three waves. In the case of Austria we make use of Waves 2 to 4. We also exclude Sweden because the necessary information is not available.

7.1. A cross-sectional analysis of income poverty risk and lifestyle deprivation

What does it mean to be at risk of income poverty in terms of lifestyle? The ECHP data offers a brilliant opportunity to get a detailed picture in this respect across a range of European societies. We first provide a detailed analysis availing of the individual items before turning to composite indices. The relative at-risk-of poverty threshold we employ is that most conventionally employed: 60 percent of median income. However, the central conclusions we wish to draw are not particularly sensitive to the choice of income line.

Table 7.1 shows the extent of deprivation on the basic items across countries for those below 60 percent of median income. Particularly high numbers report being unable to afford an annual holiday or to replace worn out furniture. The proportion of those facing income poverty risk who report the inability to take a holiday ranges from one in four in Danish households, to four of five in Spain and nine of ten in Portugal. Likewise, the percentage of those facing income poverty risk and unable to replace worn out furniture ranges from 40 to 50 percent in Germany, Denmark, Ireland, Luxembourg and the Netherlands, to 80 percent in Spain and a high of 96 in Greece. Table 7.1 shows a dichotomy between the experiences of persons living in households at risk of income poverty in Southern Europe and the rest of the Europe.

The levels of deprivation are lower for the items relating to being able to afford new clothes and receive visits from friends and family. Danes report very low levels of deprivation on these items. However, in every other country, at least one in five respondents reports enforced absence of these items. On the replacing old clothing item, households in Portugal and Greece have particularly high levels of deprivation - 68 and 53 percent respectively. Similarly, Portuguese and Greek persons facing a risk of income poverty are more likely to have difficulty hosting guests than equivalently deprived households in other European countries. However, the situation is somewhat variable for the other countries. Thus in the Netherlands the figure falls to 19 percent while in Italy it comes close to 35 percent. In the remaining countries it ranges from the low twenties to the low thirties. The items relating to affordability of meat, chicken and fish and debts represent cases involving much

lower levels of deprivation, although in each case Greece represents an exception with one in two reporting deprivation.

Table 7.1 Extent of basic deprivation for individuals below 60% of median income in wave 4

	% Deprived						
	Adequate warmth	Annual holiday	Replace furniture	New clothes	Meat, chicken, fish	Friends or family to visit	Debts
B	9	49	54	24	7	30	18
DK	2	26	43	6	3	9	7
D	3	41	48	38	10	29	9
EL	69	87	96	53	51	64	50
E	76	81	80	17	5	26	20
F	15	70	65	23	11	28	28
IRL	22	62	42	24	10	25	33
I	42	71	82	33	15	34	16
L	6	52	48	21	13	29	13
NL	8	41	51	35	7	19	11
A	6	51	67	17	11	23	7
P	85	91	90	68	22	39	20
FIN	7	64	70	25	16	25	24
UK	11	63	68	34	16	24	30

Particularly high proportions of Irish and Greek households experience debt. Southern European countries have considerably higher numbers of persons in households which cannot adequately heat their homes. After the Southern European countries, Irish persons living in households facing a risk of income poverty are next most likely to have difficulties heating their homes.

In Table 7.2 we report the cross-country distribution of deprivation on the secondary dimension. It is noticeable that levels of deprivation are significantly lower on these items. In only a couple of cases do more than one in two respondents report enforced absence. This is likely to reflect the greater role taste plays in relation to such factors and the fact that such items may have been acquired quite some time ago and are consequently less influenced by short-term changes in income fortune. The highest levels of deprivation are observed on the items referring to a car and a dishwasher. The highest value for the former is observed in Portugal where it comes closest to one in two. The figure for Belgium, Germany, Spain, Ireland and Greece is found in the range running from 20 to 30 percent. In all other cases the figure is less than 20 percent with the Italian figure being exceptionally low at 6 percent. Rather predictably, the highest figures of enforced absence of a dishwasher are found in Portugal, Spain and Greece with figures of respectively 57, 53 and 46 percent. At the other extreme are Denmark and the Netherlands where the figure falls below 12 percent. The other countries report figures ranging from the mid-teens to the mid-30s with Finland, Luxembourg and Austria at the lower end of the range and Ireland and Germany at the upper end. There are larger contrasts between Southern European countries (except Italy) and the rest of Europe for the enforced absence of a microwave. In the South over 30 percent do not own the microwave they wish they had, while fewer than 20 percent give the same report in the rest of Europe. A rather similar pattern is found for the item referring to a video recorder as well as that of a colour TV, albeit at a much lower level of deprivation, especially regarding the colour TV. Finally only in Spain, Ireland and Portugal does the figure for absence of a phone rise above 10 percent.

Turning to the items relating to housing deterioration in Table 7.3, we find sharp cross-country variations in the extent to which persons living in households at risk of income poverty are characterized by deprivation in relation to these items. There is a group of six countries with extremely low values on all three items: Denmark, Germany, Luxembourg, Austria, Finland and Italy.

Table 7.2 Extent of deprivation regarding secondary items for individuals below 60% of median income in wave 4

	% Deprived					
	Car or van for private use	Colour TV	Video recorder	Micro wave	Dish-washer	Phone
B	24	4	10	19	22	4
DK	17	3	7	10	6	4
D	27	2	20	22	34	3
EL	30	6	30	30	46	7
E	24	1	26	41	53	16
F	13	5	13	15	22	4
IRL	29	2	15	19	33	23
I	6	1	16	15	24	8
L	13		8	15	17	
NL	15	2	10	13	12	2
A	13	2	15	11	19	6
P	46	14	49	57	57	34
FIN	18	6	15	15	17	9
UK	17	2	7	9	33	1

Table 7.3: Extent of deprivation relating to housing deterioration for individuals below 60% of median income in wave 4

	% Deprived		
	Leaky roof	Damp	Rot
B	8	27	10
DK	2	2	7
D	5	7	7
EL	22	26	15
E	17	32	8
F	7	33	21
IRL	5	22	20
I	7	5	6
L	4	13	6
NL	8	20	21
A	5	16	7
P	31	55	47
FIN	5	5	4
UK	5	24	13

By contrast, large numbers of persons in households facing income poverty risk in Portugal, followed more distantly by their counterparts in Greece and Spain, experience all housing deterioration problems. 33 percent of persons in households facing income poverty risk in France experience problems with damp, and a lower but notable number in Ireland, the UK and the Netherlands report problems with damp and rot.

From Table 7.4 we see that the vast majority of respondents at risk of income poverty do not report problems with housing facilities. Portugal, with high numbers of houses without basic facilities, and Greece, where many households lack hot water, are significant exceptions. The figures are somewhat higher for the items relating to the environment reported in Table 7.5. However, we should note that in no case does the percentage reporting a deprivation constitute a majority of those at risk of income poverty and in only a small number of cases does it represent more than one third. The environmental items are rather different from those other deprivation items we have considered so far. With the exception of the item relating to shortage of space, the levels of deprivation in the Southern European countries are, if anything, lower than in the other countries. Noise problems and shortage of space are the problems most frequently reported across countries with the figures varying around median levels of approximately 30 percent in both cases.

Table 7.4: Extent of deprivation relating to house facilities for individuals below 60% of median income in wave 4

	% Deprived		
	Bath or shower	Flushing toilet	Hot running water
B	6	5	6
DK	6	4	1
D	4	3	5
EL	10	12	77
E	2	1	5
F	5	7	4
IRL	3	2	5
I	2	2	3
L	2		6
NL	2	1	1
A	4	7	3
P	24	21	31
FIN	7	6	5
UK	0	0	0

Table7.5: Extent of deprivation regarding environment items for individuals below 60% of median income in wave 4

	% Deprived				
	Shortage of space	Noise	Not enough light	Pollution	Crime or vandalism
B	30	28	12	11	22
DK	17	14	2	7	7
D	15	38	6	13	13
EL	35	19	15	8	4
E	35	33	17	12	21
F	22	34	12	15	28
IRL	27	25	11	14	23
I	30	43	14	26	25
L	15	27		17	9
NL	19	39	10	9	25
A	19	26	10	8	8
P	44	16	30	16	17
FIN	28	38	7	23	26
UK	26	30	14	14	22

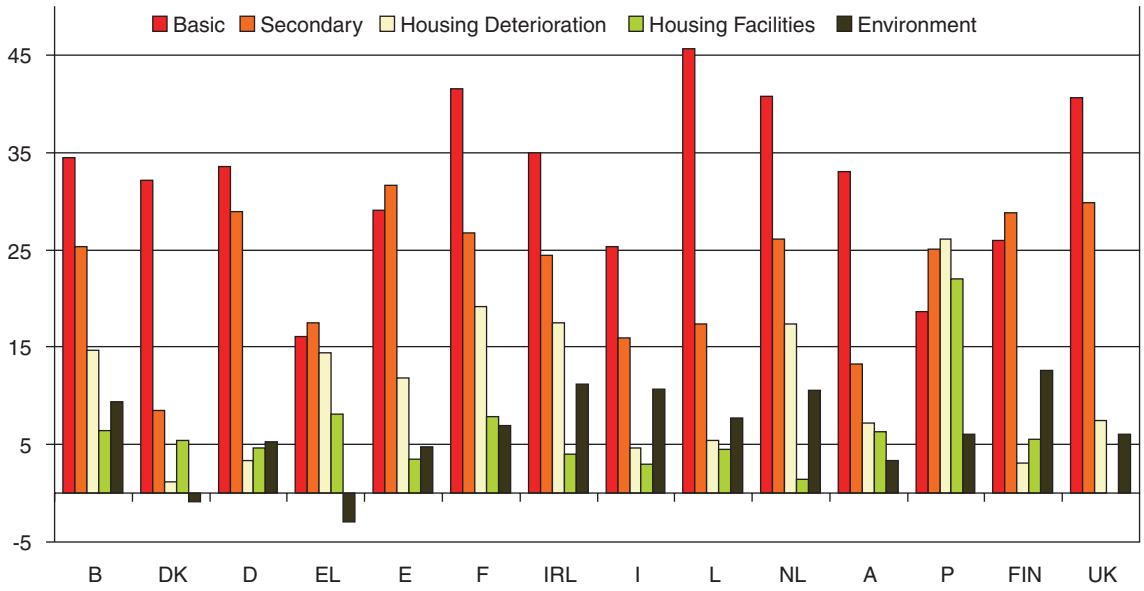
The deprivation levels relating to high levels of pollution and low levels of light are substantially lower. For the former the highest level is one in four in Italy and for the latter one in three in Portugal. The item relating to crime and vandalism is of particular interest because of widespread stereotypes that suggest that the poor are concentrated in urban ghettos plagued by such problems. The highest level of incidence of problems with crime, 28 percent, is reported for France. Seven countries are found in the narrow range running from 21 to 26 percent. Finally countries such as Denmark, Luxembourg, Austria and Greece report levels falling below 10 percent. In contrast with the prevailing assumptions, a very substantial majority of respondents at risk of income poverty do not report problems relating to crime or vandalism.

Thus far we have dealt only with the extent to which respondents at risk of income poverty are characterized by such difficulties. In Figure 7.1 we address the related but rather different question of the extent to which these respondents are differentiated from others in terms of the deprivation dimensions. In order to do so for each dimension we take the simple but fortunately effective indicator of the percentage lacking at least one item and calculate the percentage difference between those below 60 percent of median income and all others. Thus for the basic dimension we find that the largest difference between those below 60 percent of median income and all others is in France, Luxembourg and the Netherlands, where over forty percent more of the former lack a basic item. Eight other countries are found in the range 25 and 38 percent. The lowest differences are found in Portugal and Greece where of course the overall levels of deprivation are highest. Overall, the basic items prove

to be remarkably consistent discriminators between those at risk of poverty and those not at risk across the countries of the European Union.

When we turn to the secondary deprivation, we find that while these items also consistently discriminate between those at risk of income poverty and those not, the extent of the observed difference is less in most cases and the magnitude of the difference is somewhat more variable. The largest difference of 32 percent is observed for Spain followed by the UK with 30 percent. We find a group of seven countries comprising Germany, Finland, France, the Netherlands, Portugal and Belgium, in the range 24 to 29 percent. In Austria, Italy, Luxembourg and Greece, the difference ranges between 13 and 17 percent. Finally the items are least discriminatory in Denmark where the difference falls to nine percent. Although the secondary items are less powerful than the basic ones they do consistently discriminate between those at risk of poverty and those not.

Figure 7.1 Difference between those below and above the at-risk-of poverty line (60% of median) in the percentage lacking at least one item by deprivation dimension



The same is not true for the housing deterioration items. In Denmark, Germany, Luxembourg, Finland and Italy the percentage difference does not exceed five percent. In Austria and the UK the difference is less than 10 percent and for five other countries the figure falls between 14 and 19 percent. Only in Portugal does it exceed twenty percent. For the facilities items the picture is clearer. Only in the case of Portugal do they prove to be effective discriminators. For the remaining countries the percentage difference does not exceed eight percent. The environmental items also fail to provide consistent discrimination. For Finland, the Netherlands, Ireland and Italy differences in the range 11 to 13 percent are observed. However, in Denmark and Greece the observed differences are actually negative indicating that those not facing income poverty risk are actually more likely to face such problems although the differences are marginal. For the remaining countries the differences are positive but modest. Thus the basic and secondary items prove to be substantially more effective cross-national discriminators between respondents at risk of poverty and others than the housing and environmental items.

7.2. Income poverty risk, health, social relations and subjective well-being

Although the deprivation items introduced in the previous section constitute the most reliable measures of lifestyle deprivation in the ECHP there are a range of other items which, while covering the targeted domains a good deal less comprehensively, relate to areas which have been prominent in debates relating to social exclusion. As the social exclusion perspective has encouraged a shift from a uni-dimensional to a multi-dimensional perspective interest has extended beyond income poverty, not just to consumption but to dimensions such as social relations, health and the subjective responses to economic circumstances. In this section we look at the relationship between these domains and income poverty. We start with social relations

and make use of two indicators from the ECHP. The first relates to contact with friends or relatives outside the household where our indicator is the percentage having contact less than once monthly. The second relates to membership of a club or organization and our indicator is the percentage not member of such organizations. The results across countries are displayed in Table 7.6.

We observe that social isolation is a very unusual phenomenon in Europe, even among those at risk of income poverty. In ten of the thirteen countries the observed percentage having less than monthly contact is less than ten percent and the highest values observed are 16 percent in Luxembourg and France,[46] and 19 percent in Portugal. Thus, this social contact variable proves to be a rather unsatisfactory measure of social exclusion because the phenomenon is observed fairly rarely even among those at risk of poverty. In the case of organizational membership exactly the opposite is the case. In every country the numbers reporting that they are not members of an organization is too high to make the item an effective indicator. With the exception of Denmark, in every country, one in two report that they are not members of a group, and in ten of the thirteen countries, the figure comes close to or exceeds two-thirds of respondents. Thus if a relationship between income poverty and social exclusion is to be established it will be necessary to go beyond the indicators included in the ECHP (see also discussion in the previous chapter).

When we turn to the sphere of health we again face a situation of having indicators with very different distributions and we are confronted with formidable problems of interpretation. We look first at the question relating to general health and distinguish between those reporting that their health is 'bad' or 'very bad' from all others. From Table 7.6 it is clear that only a minority of those at risk of income poverty consider their health to be poor. Only in the case of Portugal does the figure rise significantly above one in six. The pattern of variation in which those at risk of income poverty in Ireland and the Netherlands report rates two times lower than their counterparts elsewhere would also lead us to be cautious in interpreting these figures. In contrast the figures reporting chronic health problems are substantially higher. Contrary to what one might expect, however, the highest rates are not found in the poorer countries. Instead the highest rates of over forty percent are observed in Denmark and the UK. The next group of countries reporting figures in the thirties comprises Finland, Portugal, Germany and Austria. They are followed by a group of countries with rates in the twenties including France, Ireland, the Netherlands, Spain, Greece and Belgium. Finally the lowest level of one in seven is found it Italy. We would suggest that considerable care should be used in interpreting such indicators as measures of social exclusion.

The patterns in relation to subjective responses to economic circumstances are a good deal more straightforward. Looking first at the percentage dissatisfied with their financial situation we find that, with the exception of Denmark and the Netherlands, a majority of those at risk of poverty are dissatisfied. The highest levels of dissatisfaction are observed in the Southern European countries with the percentage dissatisfied ranging from 77 percent in Spain to 93 percent in Greece. France, Ireland and Finland have the next highest levels with a high of 70 percent and a low of 60 percent. Belgium, the UK and Austria display somewhat lower levels of with one in two expressing dissatisfaction.

Consistent with our earlier analysis of dimensions of deprivation, levels of dissatisfaction are significantly lower in the case of housing with a majority expressing dissatisfaction only in the case of Greece. However, once again the highest levels are observed in the Southern European countries, with the figures ranging from 31 percent in Spain to 59 percent in Greece. In no other country does the number expressing dissatisfaction rise significantly above one in four.

([46]) It should here however be noted that the format of this question in France was slightly different than in other countries.

Table 7.6: Levels of deprivation regarding health condition, social contact and satisfaction of individuals below 60% of median income in 1996

%	General health	Chronic health problems	Membership	Meeting people	Financial situation satisfact.	Housing situation satisfact.	Economic strain
B	10	21	68	13	53	19	29
DK	12	42	44	5	30	12	23
D	13	32	59	9	61	24	21
EL	15	26	94	2	93	59	83
E	14	25	83	2	77	31	62
F	11	29	84	16	70	16	40
IRL	7	26	73	1	63	26	52
I	14	14	88	8	82	44	42
L	16	35	74	16	56	13	35
NL	5	25	65	2	46	15	36
A	15	32	62	12	49	13	39
P	39	38	92	19	90	45	67
FIN	10	38	56	4	60	27	36
UK	13	42	63	5	51	22	35

Our final measure of subjective well-being relates to the extent to which households experience difficulty in making ends meet. This measure is of particular interest because it is the one that *a priori* we would expect to be most strongly related to the risk of income poverty. We distinguish between those experiencing 'a great deal' or 'a good deal of difficulty' in making ends meet and all others. In every case the numbers experiencing difficulty is less than the numbers expressing dissatisfaction with their financial situation. This is as we would expect since it is perfectly possible to feel that one is not being rewarded appropriately without feeling under economic strain. The highest levels of economic strain are observed in Greece, Portugal and Spain with respective levels of 83, 67 and 62 percent. Ireland where one in two report being under at least a good deal of economic strain follows these. Rather lower levels ranging between thirty to forty percent are found in Italy, France, Austria, Finland, the Netherlands, the UK and Belgium. Denmark and Germany report the lowest level of just less than one in four.

7.3. Persistent risk of income poverty and lifestyle deprivation

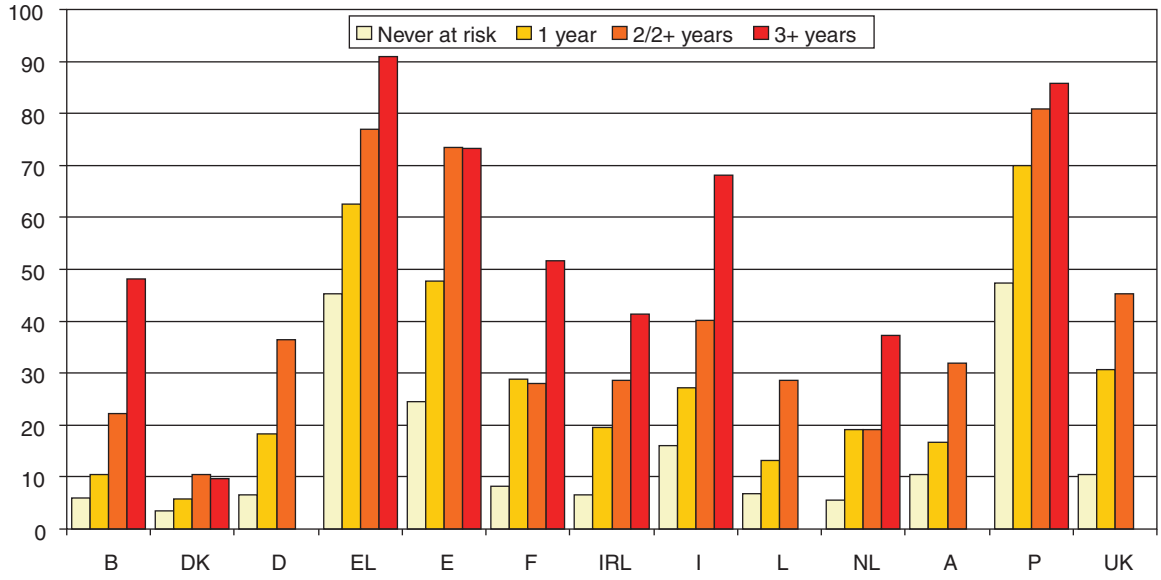
Thus far we have restricted our attention to cross-sectional income poverty risk. However, one of the major opportunities offered by the ECHP data set is that it allows us to take advantage of its longitudinal nature to calculate and make use of measures of the persistence of poverty risk. Here we wish to take advantage of the possibility of introducing a temporal dimension in order to improve our understanding of the relationship between income poverty risk and deprivation.

In our subsequent analysis, we define persistent risk of income poverty in a dichotomous way as involving falling below sixty percent of equivalized median income in at least three out of four years, the last year included. Once again we remind the reader that in some cases we had to adjust this procedure. For Austria we have only three years of data and so we define persistent risk of poverty as being at risk of poverty in at least two out of three years. The absence of appropriate deprivation information for Germany, Luxembourg and the UK in the fourth wave means that it is necessary for us to adopt the same strategy for these countries. Finally Finland is excluded from our analysis since we have there only two years of observations.

In Figure 7.2 we show the relationship between degree of exposure to income poverty risk and extent of deprivation. In particular, we show the percentage reporting that they lack three or more basic deprivation items broken down by number of times at-risk-of poverty. In general there is a clear and striking relationship between degree of exposure to income poverty risk over time and exposure to basic deprivation. Belgium provides a good example of the generally monotonic relationship. Among those who entirely avoid income poverty risk only six percent lack three or more basic deprivation items. This percentage rises to 11 percent for those at risk of income poverty on one occasion to 22 percent for those at risk of poverty on two occasions before peaking at 48 percent for those at risk of poverty in at least three out of four years. Ireland provides a similar example

with a steady rise in the percentage deprived from 7 to 20 to 29 and finally 41 percent. There are some minor deviations from this pattern of steady increase, but they do little to detract from the striking regularity of the overall pattern. Of course the starting points are very different. In Greece and Portugal, even among those who have entirely avoided income poverty risk, just less than one in two experience an enforced absence of at least three items. Apart from Spain and Italy, where the figure is respectively one in four and one in six, in no other country does it rise above 11 percent.

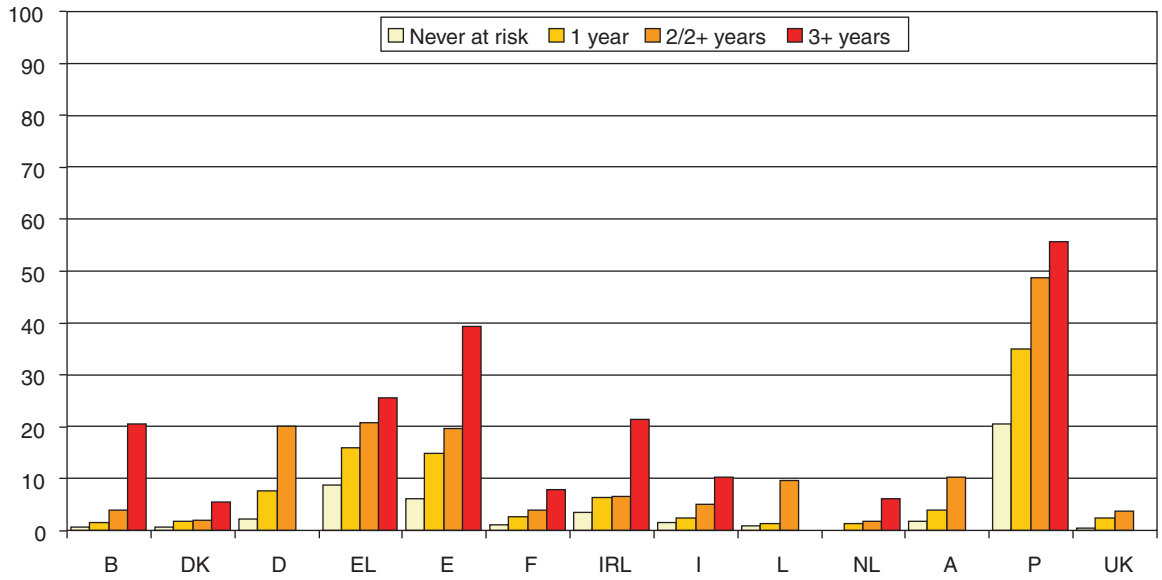
Figure 7.2: Basic deprivation (3+ items) by number of years at-risk-of poverty (60% line)



Among the three poorest Southern European countries the numbers lacking three or more basic deprivation items among those at risk of income poverty exceeds two-thirds in all cases, ranging from 73 percent in Spain to 91 percent in Greece. The same is true for Italy with 68 percent. These countries are followed by France with a level of 52 percent. For the UK and Belgium the rate is close to one in two. Germany, the Netherlands, Austria and Luxembourg report percentages in the thirties. Those at persistent risk of income poverty in Denmark, who constitute a much smaller proportion of the population of that country than in other countries, are also distinctive in the low levels of basic deprivation they report: only 10 percent lack three or more items.

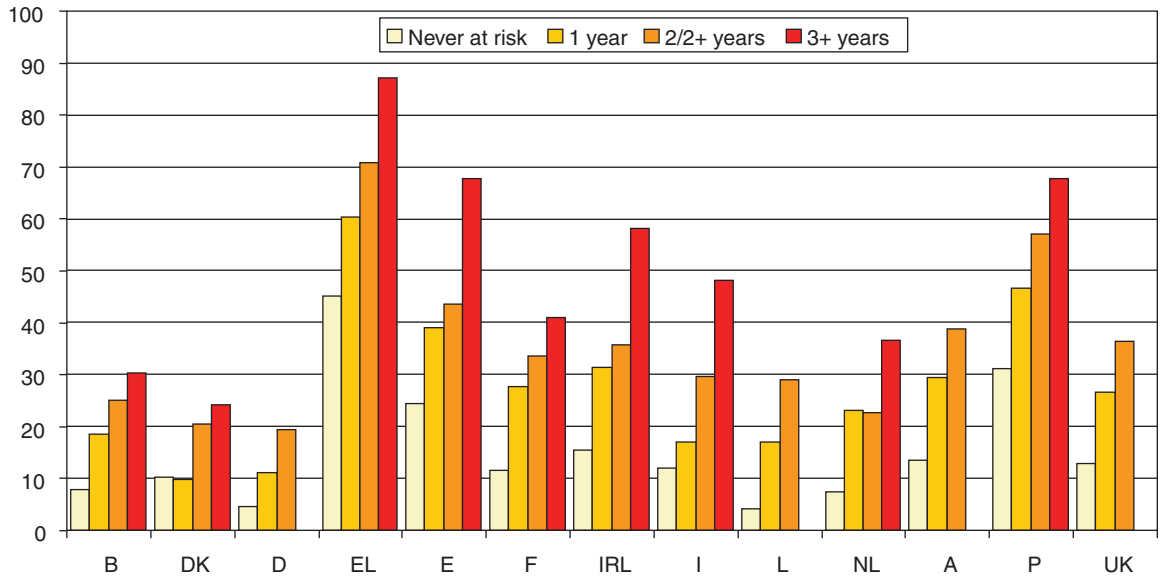
In Figure 7.3, we look at the corresponding relationship to secondary deprivation. While the levels of deprivation are lower, the relationship is equally clear. Among those who entirely avoid the risk of income poverty, only in Portugal does the relevant statistic rise above 20 percent and in eight of the thirteen countries it does not exceed two percent. In every country the level of secondary deprivation rises with exposure to income poverty risk and displays its highest value among those at persistent risk of poverty. The highest levels of deprivation in this category are observed in Portugal, Spain and Greece where the respective percentages are 56, 39 and 25 percent. Ireland, Belgium and Germany are found in the range of 30 percent. The figure for Italy, Austria and France is somewhat lower at around 10 percent. Finally, there is a group of countries that display extremely low levels of secondary deprivation with the rate never exceeding six percent. These comprise Denmark, the Netherlands and the UK.

Figure 7.3: Secondary deprivation (3+ items) by number of years at-risk-of poverty (60% line)



In Figure 7.4 we look at the relationship between increasing exposure to the risk of income poverty and experiencing economic strain which is defined as being in a household that is having a great or a good deal of difficulty in making ends meet. Once again the number of times one has been exposed to the risk of income poverty proves to be a powerful predictor. France provides a very good example. Economic strain is at its lowest among those who have entirely avoided the risk of income poverty with a reported rate of 11 percent. This figure rises to 28 percent for those at risk of poverty on one occasion and to 34 percent for those at risk of poverty on two occasions. Finally it peaks at 41 percent for those in a state of persistent risk of poverty, i.e. on at least three out of four occasions. Among those who have avoided exposure to income poverty risk the highest rates of economic strain are found predictably in Greece, Portugal and Spain with rates respectively of 45, 31 and 24 percent. After these three countries, the next highest rate (15 percent) is found in Ireland. Among those in a state of persistent risk of poverty, those in Greece, Portugal and Spain again report the highest rates of strain ranging from 87 to 68 percent. The next highest rates are observed in Ireland, Italy and France, with rates of 58, 48 and 41 percent respectively. They are followed by a group of countries comprising Austria, the UK and Belgium, where the level of strain reported is around one in three. For Denmark and Luxembourg, it approximates one in four. Finally the lowest level of close to one in seven is found in Germany[47].

Figure 7.4: Economic strain by number of years at-risk-of poverty (60% line)



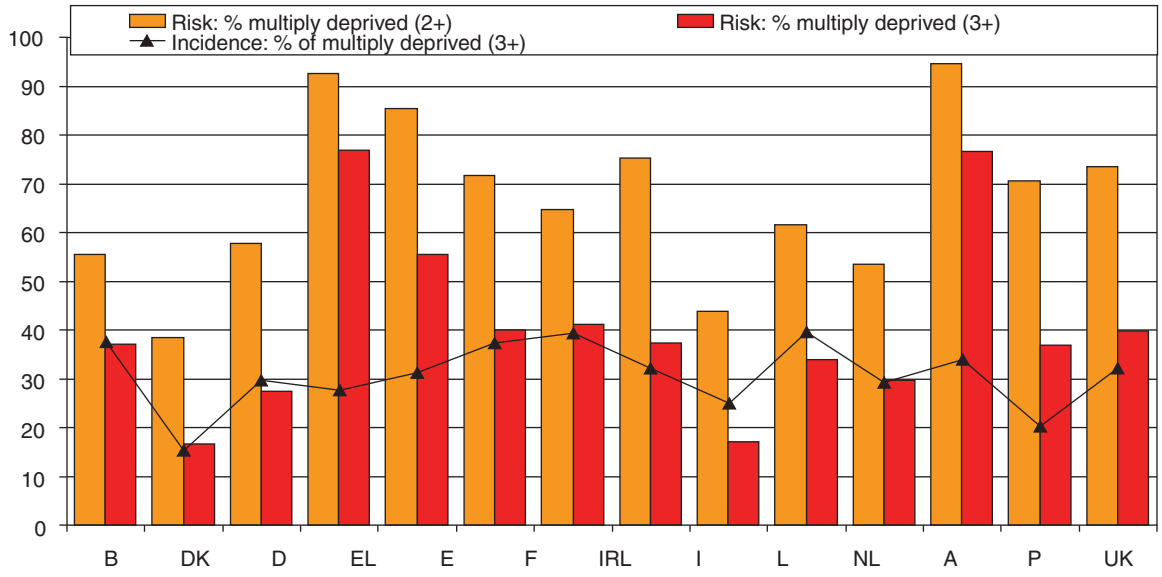
([47]) For further discussion, see Whelan, C.T. et al (forthcoming) "Persistent Income Poverty and Deprivation in the European Union", *Journal of Social Policy*, 32.1

7.4. Multiple deprivation and persistent risk of income poverty

In this section we make use of the ECHP to look at the relationship between current at-risk-of income poverty and multiple deprivation and for examining the relationship between persistent risk of income poverty and multiple deprivation. In order to make our analysis as accessible as possible we operate with very simple indicators of multiple deprivation. In Figure 7.5 we show the percentage of persons living in households at risk of income poverty which are deprived, respectively, on two or more, then on three or more of the five lifestyle dimensions identified earlier. It should be stressed that this is an extremely minimalist definition of multiple deprivation. It does not, for example, require that respondents be found among the most deprived quartile or decile on any dimension. However, these simple indicators will serve our current purposes as long as it is kept in mind that more stringent definitions would lead us to observe significantly lower levels of multiple deprivation.

From Figure 7.5 we can see that, with the exception of Denmark and the Netherlands, in every country at least one in two of those at risk of income poverty are lacking an item on at least *two* of the dimensions. In eight of the fourteen countries at least two out of three of the income poor fulfill this condition. This finding is consistent with the earlier evidence concerning the systematic relationship between income poverty risk and the basic and secondary deprivation dimensions. However, as is also clear from Figure 7.5, once we apply the more stringent condition of lacking an item on at least *three* dimensions the picture changes dramatically. Only among the less affluent Southern European countries are a majority found to be deprived, although in Greece and Portugal the number still exceeds three of four. In seven of the fourteen countries the number of multiply deprived households is approximately one third or less and for three other countries, the proportion barely exceeds four out of ten. From this we see that even with a minimalist definition of multiple disadvantage once we move beyond two dimensions the proposition that the majority of those at risk of income poverty are multiply deprived cannot be sustained.

Figure 7.5: Multiple deprivation (at least one item on 2+/3+ deprivation dimensions) of persons at-risk-of poverty (60% line) in wave 4



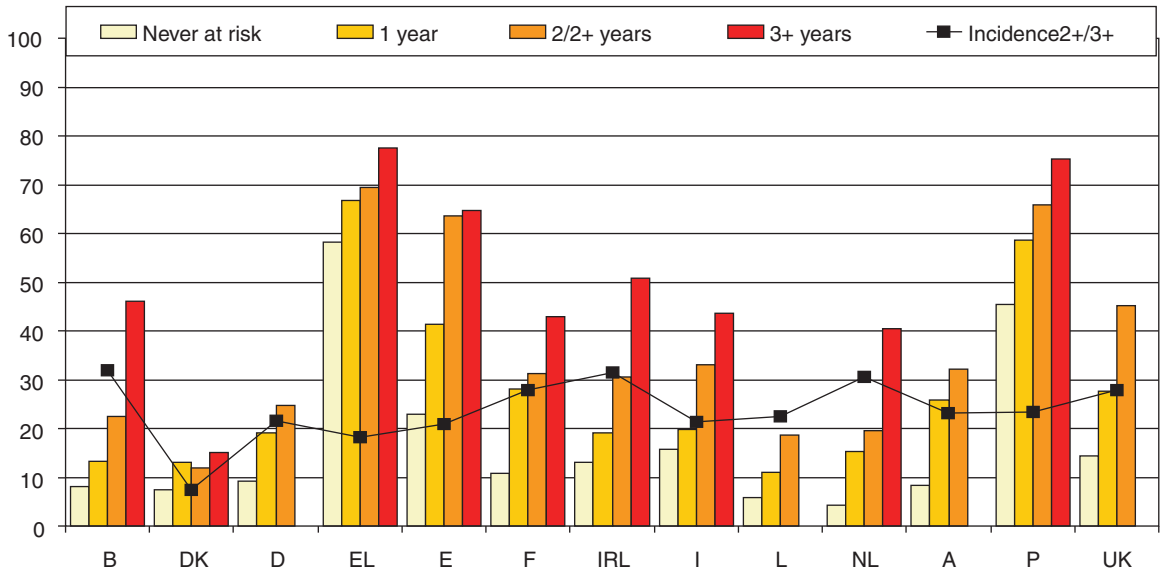
Another perspective on the issue of multiple deprivation is given by taking an incidence rather than a risk perspective. Thus the question we now ask is what proportion of those multiply deprived are below the 60 percent income poverty line. In Figure 7.5 we report the relevant result for being deprived on at least three dimensions.

The percentage ranges from a low of 15 percent in Denmark to a high of 40 percent in the Netherlands. In no case do those at risk of income poverty constitute a majority of the multiply deprived and in nine of the fourteen countries, they constitute one third or less. These figures are significantly higher than we would expect on the basis of chance, thus those at risk of income poverty are significantly more likely to be multiply deprived than those not facing such a risk. However, it remains true that, even when we operate with conditions that are a

good deal less stringent than those advocated in many treatments of social exclusion, the majority of those at risk of income poverty are not multiply deprived and correspondingly the majority of the multiply deprived are not at risk of income poverty. From our earlier analysis it is clear that the incorporation of dimensions such as social isolation and health into our analysis would only serve to strengthen our conclusion.

One possibility that remains is that thus far we have underestimated the significance of multiple deprivation by focusing on cross-sectional rather than persistent risk of income poverty. Those who face the risk of income poverty over time constitute prime candidates for exposure to multiple disadvantage. In Figure 7.6 we show the relationship between increasing exposure to the risk of income poverty and heightened risk of multiple deprivation. The results of this analysis show that, among those never exposed to the risk of income poverty, multiple disadvantage is a rare phenomenon.

Figure 7.6: Multiple deprivation (at least one item on 3 or more deprivation dimensions) by number of years at-risk-of poverty (60% of median income)



Only in the less affluent countries does the relevant figure exceed one in six and only in Greece and Spain is it close to one in two. In the latter countries, the pervasiveness of multiple deprivation is shown by the fact that 58 and 45 percent of those who are not exposed to the risk of income poverty during the four-year period still experience enforced absence of an item on at least three of the dimensions. With a few minor exceptions, the experience of multiple disadvantage increases the greater the degree of exposure to the risk of income poverty over time. Ireland provides a good example. For those who succeed entirely in avoiding the risk of income poverty, the rate of experiencing multiple disadvantage is 11 percent. This figure rises to 28 percent for those who were at risk of poverty on one occasion and to 31 percent for those at risk on two occasions. Finally for those who were in a state of poverty risk in at least three out of four years, it peaks at 43 percent. Belgium provides a very similar trajectory, with the figure going from 8 to 13 to 23 percent and finally to 46 percent. Overall a majority of those facing a persistent risk of income poverty are multiply deprived in only four countries – Ireland (51 percent), Spain (65 percent), Portugal (75 percent) and Greece (78 percent). Five of the remaining countries, the Netherlands, Belgium, Italy the UK and France, are found in the range running from 40 to 49 percent. The remaining countries, where even those facing a persistent risk of poverty experience relatively low risks of multiple disadvantage, are Austria, Germany, Luxembourg and Denmark which are found in the range running from 32 to 15 percent.

Once again we can take advantage of the benefit of shifting from a risk to an incidence perspective. When we do so we can identify three clusters of counties. The first comprises those counties where those facing a persistent risk of income poverty make up around one third of the multiply deprived. These include Belgium, the Netherlands and Ireland. For the second group of countries the figure is closer to one in four and these comprise France, the UK, Germany, Austria, Luxembourg, Italy, Spain and Portugal. For Greece the figure falls

to one in five, and in Denmark to one in twelve. Thus while the risk of multiple deprivation increases systematically with the extent of exposure to the risk of income poverty, it still remains true that in most countries the majority of those facing a persistent risk of income poverty are not multiply deprived. Even more emphatically we can conclude that in all countries those facing a persistent risk of income poverty constitute a minority of the multiply deprived[48].

7.5. Relative income poverty and relative deprivation

Up to this point, our analysis of deprivation has deliberately been kept simple in that we have dealt with individual items or indices built on simple counts of such items. This approach has the value of being extremely transparent and at the same time both gives a concrete picture of what is involved in being at risk of poverty in each of the countries included in the ECHP and allows straightforward comparisons across countries. However, giving each of the lifestyle deprivation items an equal weight implies a rather different rationale to that involved in constructing relative at-risk-of poverty lines. Effectively a common standard is being applied across countries, rather than a relative standard that takes the average level of living in the country in question into account. As a consequence there will be much wider gaps between countries than will be the case with relative at-risk-of poverty lines. An alternative approach is to take a common set of indicators across countries, but in a way which takes average levels of deprivation in the individual societies into account. Thus if we wished to construct a deprivation measure corresponding to a relative income measure we would not wish to assume that the enforced absence of a video recorder involved the same level of deprivation in each country. We would rather wish to take into account the societal norms. Furthermore, we would like to be able to locate each individual relative to the average level of deprivation in the society.[49]

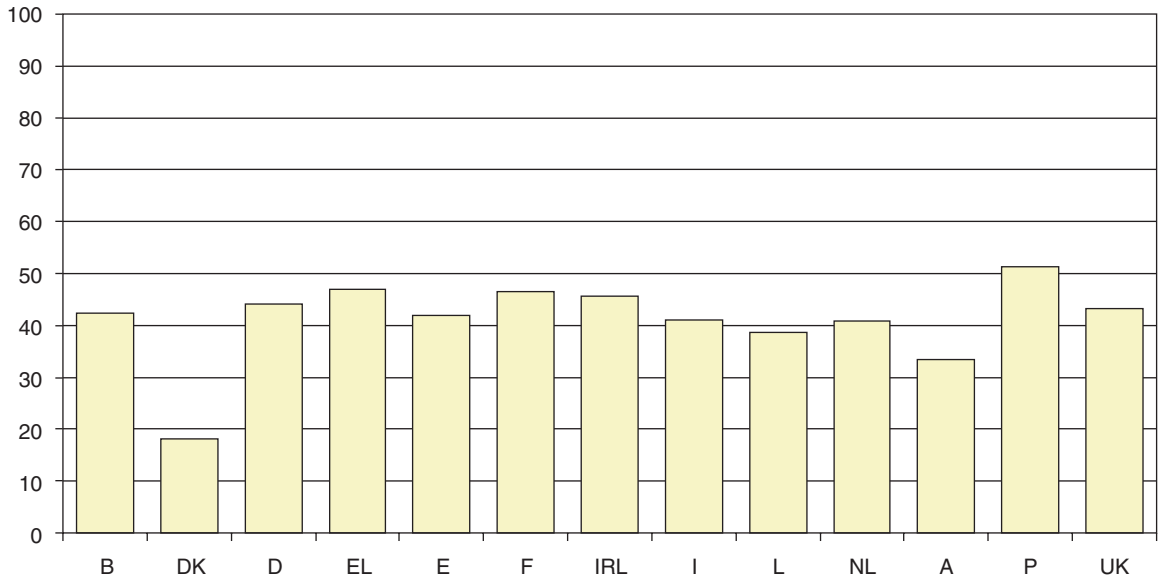
In order to construct a measure of deprivation that fulfils these conditions and thus parallels our risk of income poverty measure, we take a series of simple steps. First we concentrate on the thirteen items making up the basic and secondary dimensions, excluding the remaining items that are in many countries rather weakly related to the risk of income poverty. This provides us with a reasonably broad set of items with satisfactory levels of reliability across countries, that tap what we may call *Current Lifestyle Deprivation* (CLSD). We then construct a weighted version of this measure in which each individual item is weighted by the proportion of households possessing that item in each country. As a consequence deprivation of an item such as a video recorder will be counted as a more substantial deprivation in Denmark as compared to Greece. The weighted CLSD measure makes it possible to identify for each country, and for each at-risk-of income poverty line, a corresponding deprivation threshold below which the proportion of respondents matches as closely as possible that found below the sixty percent median income line. This allows in principle for the mismatch between poverty risk defined in income and deprivation terms to vary from zero to one hundred percent.

In Figure 7.7 we show the percentage of individuals found below 60 percent of median income who are also found below the corresponding deprivation threshold. This ranges from a low of 18 percent in Denmark to a high of 51 percent in Portugal. Nine of the thirteen countries are found in the range running from 40 to 50 percent.

([48]) For further discussion, see Whelan, C.T. et al (2002) "Multiple Deprivation and Persistent Poverty in the European Union", *Journal of Social Policy*, 12:2.91-105

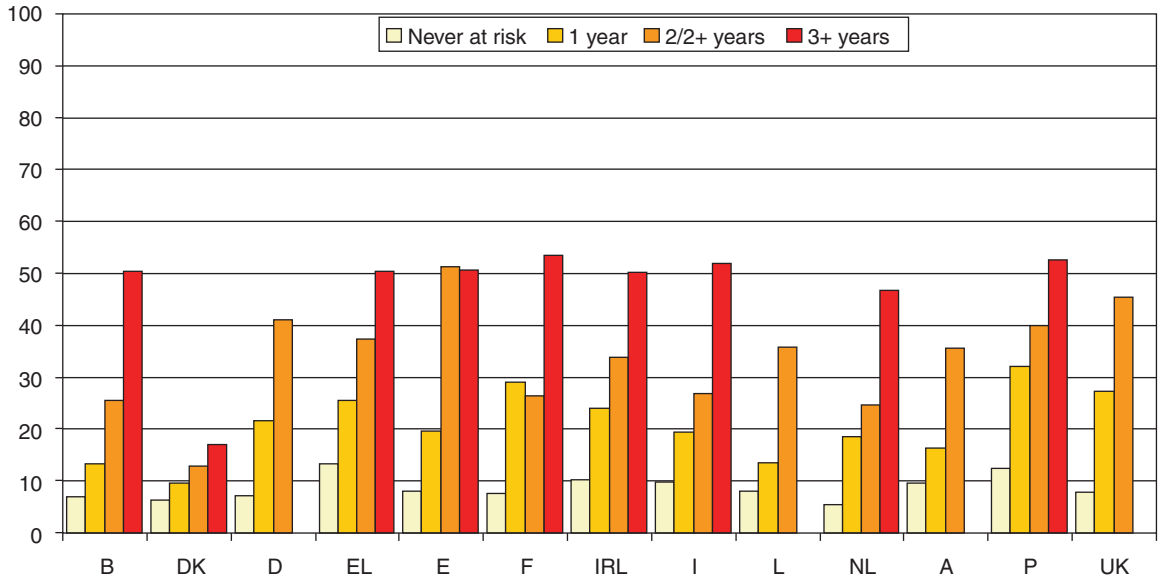
([49]) A third option, of course, is to seek to use indicators specific to the country in question but designed to capture the same underlying condition of exclusion due to lack of resources. However, such an approach would present us with formidable difficulties in terms of both analysis and ability to communicate findings.

Figure 7.7: Percentage of those below 60% of median income also found below the correspondent current lifestyle deprivation threshold in wave 4 of the ECHP



From Figure 7.8 we can see that our ability to predict being above the threshold is substantially improved by taking the persistence of the risk of income poverty into account. Except in Denmark, there is a clear increase in the percentage deprived as exposure to the risk of income poverty increases. In Italy, for example, the percentage above the deprivation threshold rises from 10 percent for those who entirely avoid this risk, to 19 percent for those at risk of income poverty on one occasion, to 27 percent for those at risk of poverty on two occasions, and to 52 percent for those at risk of poverty in at least three out of four years. Similarly, in the UK the figure rises from eight percent for those not exposed to income poverty risk, to 37 percent for those at risk of poverty in one year to 45 percent for those at risk in two out of three years. Overall, among those never falling below the at-risk-of income poverty line, the percentage above the deprivation threshold is equal or exceeds 10 percent in only five counties and reaches a maximum of 13 percent in Greece. Among those at risk of poverty on one occasion a minimum of one in ten are above the threshold in seven of the thirteen countries and the maximum value is 32 percent (in Portugal). For those at risk of poverty on two out of four occasions the relevant figure exceeds thirty percent in eight of the ten counties, with the maximum value in Spain (51 percent).

Figure 7.8: Percentage below deprivation threshold corresponding to 60% of median income in the 4th wave by number of years at-risk-of poverty

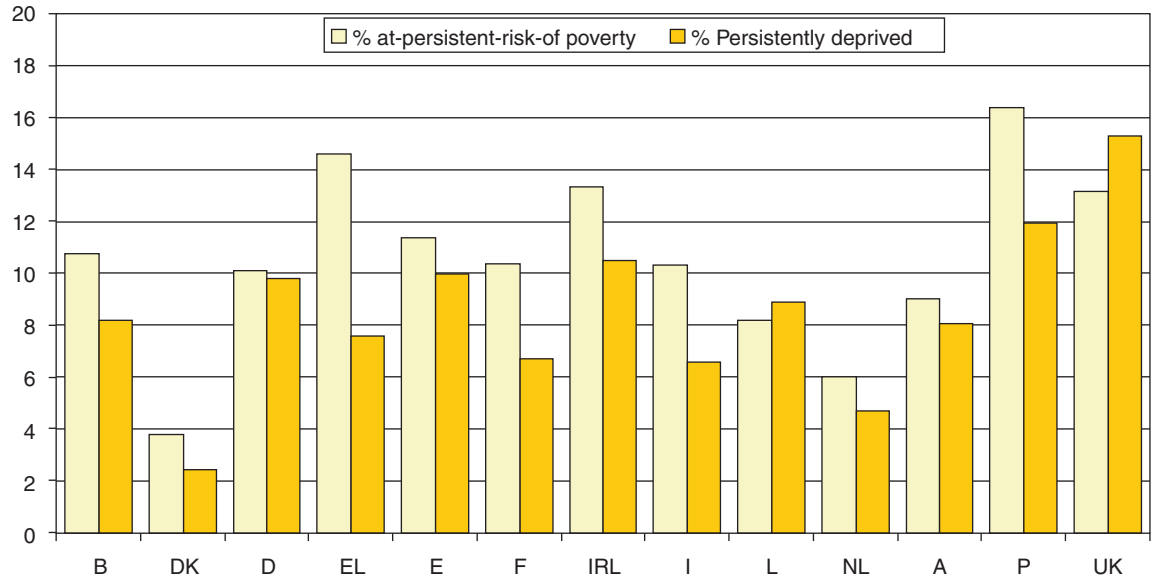


Among those at persistent risk of income poverty, the percentage who are deprived falls below forty percent in only three countries, and in nine countries a minimum of approximately one in two individuals are above the threshold. There is a clear and systematic relationship between the persistent risk of income poverty and relative deprivation.

7.6. Persistent income poverty and persistent deprivation

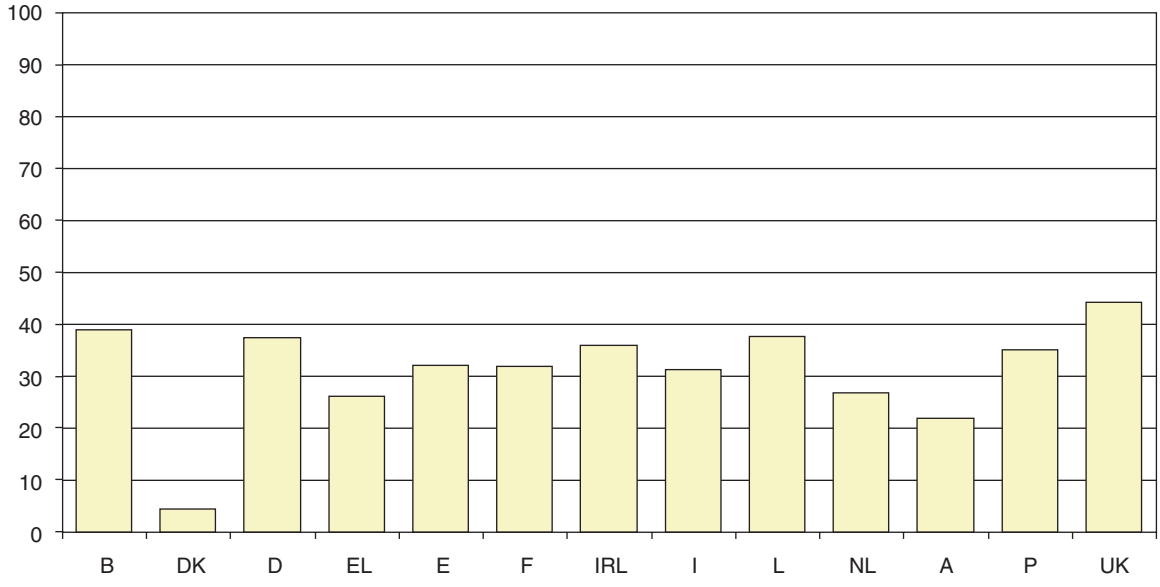
In what follows, we extend our analysis of income-deprivation consistency to take into account the relationship between the *persistent* risk of income poverty and *persistent* deprivation. Before doing so, in Figure 7.9 we compare the extent of both types of persistence.

Figure 7.9: Risk of persistent poverty and persistent deprivation at the 60% line



Once again persistence has been defined as fulfilling the appropriate condition in three out of the four years, including the last year as a necessary constraint. However, in Germany, Luxembourg, the UK and Austria, this condition has been amended to meeting the criteria in two out of three years. Contrary to expectations, Figure 7.9 shows that the levels of persistence are remarkably similar.

Figure 7.10: Persistent deprivation and at-risk-of persistent poverty (60% line)

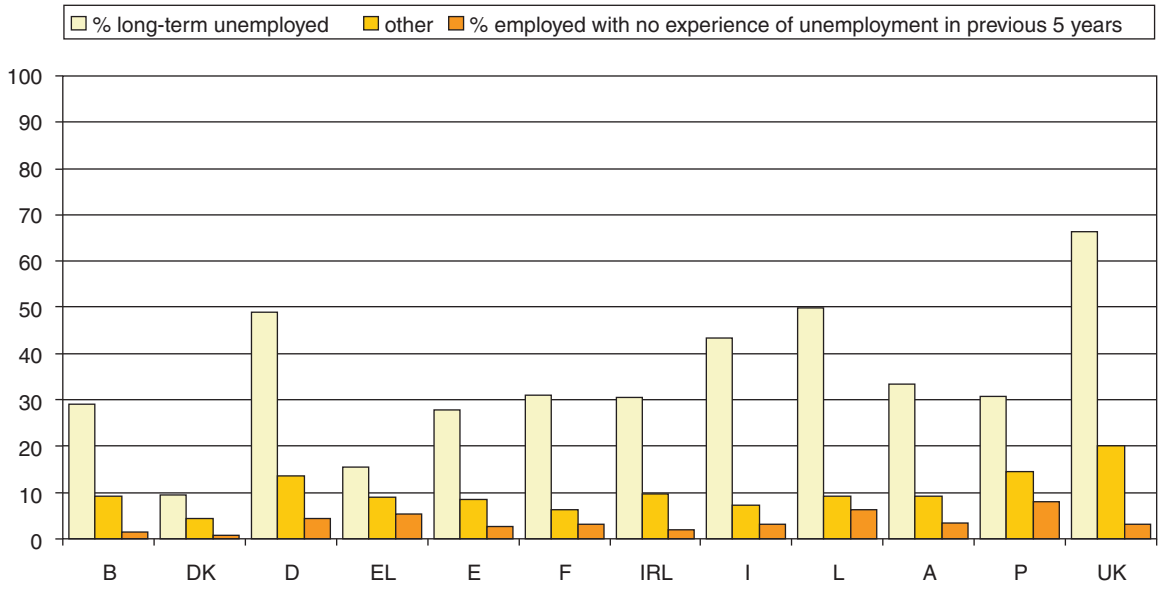


In Figure 7.10 we look at the cross-national variation in the percentage of those below the sixty percent income line who are also found below the corresponding deprivation threshold. Denmark once again represents a complete outlier with only five percent of those who are persistently at risk of income poverty being persistently below the deprivation threshold. Apart from Denmark, the level of consistency varies from 22 percent in Austria to 44 percent in the UK. Eight of the thirteen countries are found in the range running from 30 to 40 percent. This pattern is very similar to that observed at the cross-sectional level. Thus, while knowledge of the extent and persistence of income poverty risk helps to predict point-in-time deprivation, switching to persistent measures for income and deprivation does not increase the degree of consistency observed. Clearly factors other than the persistent risk of income poverty are important in determining the risk of persistent deprivation. It is to these factors that we now turn our attention.

It is beyond the scope of this report to provide a multivariate analysis of the determinants of persistent deprivation. Instead we have chosen a number of variables to illustrate some of the key processes that are operating. For the sake of simplicity we present the gross impact of these variables. However, additional analysis shows that these variables continue to be powerful influences on persistent deprivation even when we control for the impact of persistent risk of income poverty (see also Chapter 6). In Figure 7.11 we look at the impact of employment precariousness or unemployment experience. Our unit of analysis is the household reference person. For purposes of simplification we distinguish three broad categories – those currently unemployed who were unemployed for six months in the previous calendar year whom we refer to as the long-term unemployed, an intermediate category and finally those currently in employment who have not experienced unemployment in the previous five years.

From Figure 7.11 we can see that persistent deprivation is extremely modest among members of this final category. We observe a maximum value of eight percent and for eight of our thirteen observations the relevant figure does not rise above three percent.

Figure 7.11: Peristent deprivation at 60% line by unemployment experience of reference person

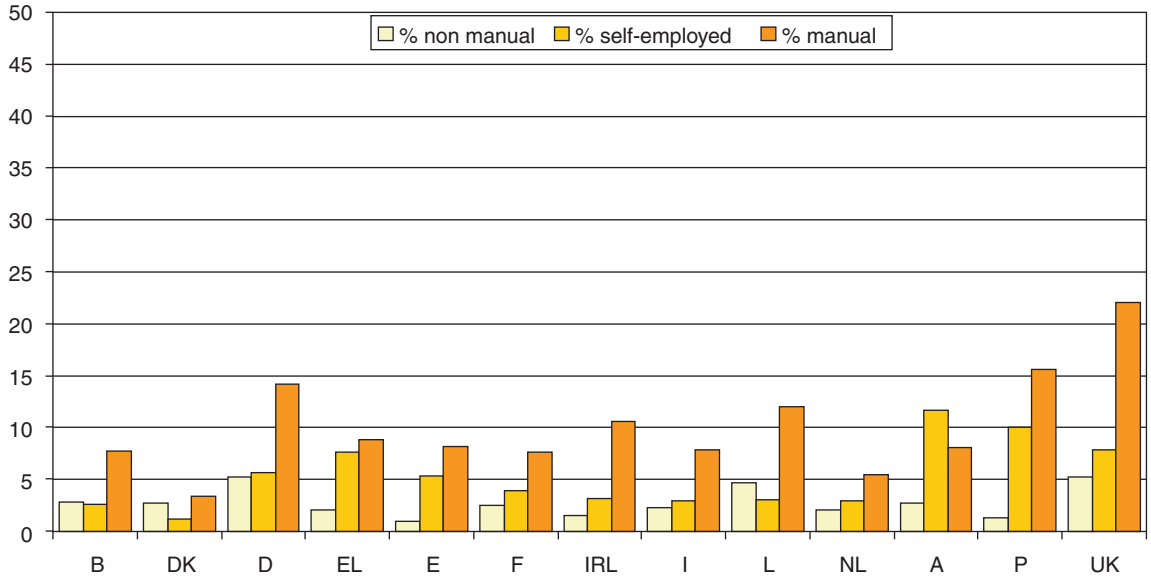


For the intermediate category the minimum and maximum values observed are four and 20 percent respectively and eight of the values lie below 10 percent. Finally for the long-term unemployed, if we ignore the rather extreme low value for Denmark, the minimum value of 16 percent occurs in Greece and the maximum of 66 percent occurs in the UK. In six countries around one third are persistently deprived and in two countries this is true of a minimum of approximately one in two.

In Figure 7.12, we look at the impact of social class of the household reference person. Here we draw a distinction between non-manual workers, the self-employed including small holders, and manual workers. However, in order to bring out more clearly the underlying trends, we combine manual workers and small holders in Spain, Greece and Portugal. Non-manual workers experience extremely low levels of persistent deprivation. The highest value of five percent is observed for Germany, Luxembourg and the UK. Among the

self-employed a high value of 12 percent is recorded for Austria and this arises because of unexpectedly high levels of persistent deprivation among small holders in that country. Otherwise the maximum value is 10 percent in Portugal and the minimum is one percent in Denmark.

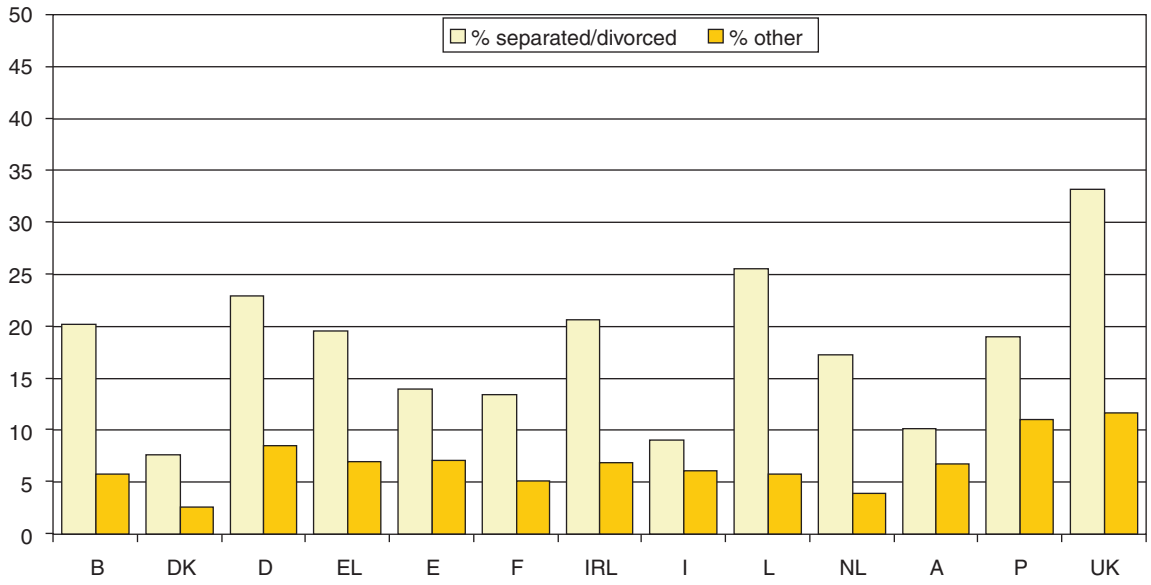
Figure 7.12: Peristent deprivation at the 60% line by social class of the household reference person (for Spain, Portugal, Greece small holders are combined with



For manual workers Denmark and the Netherlands record exceptionally low values of three and five percent respectively. Aside from this, the lowest value is eight percent in Belgium, Spain, France, Italy and Austria while the highest is 22 percent in the UK.

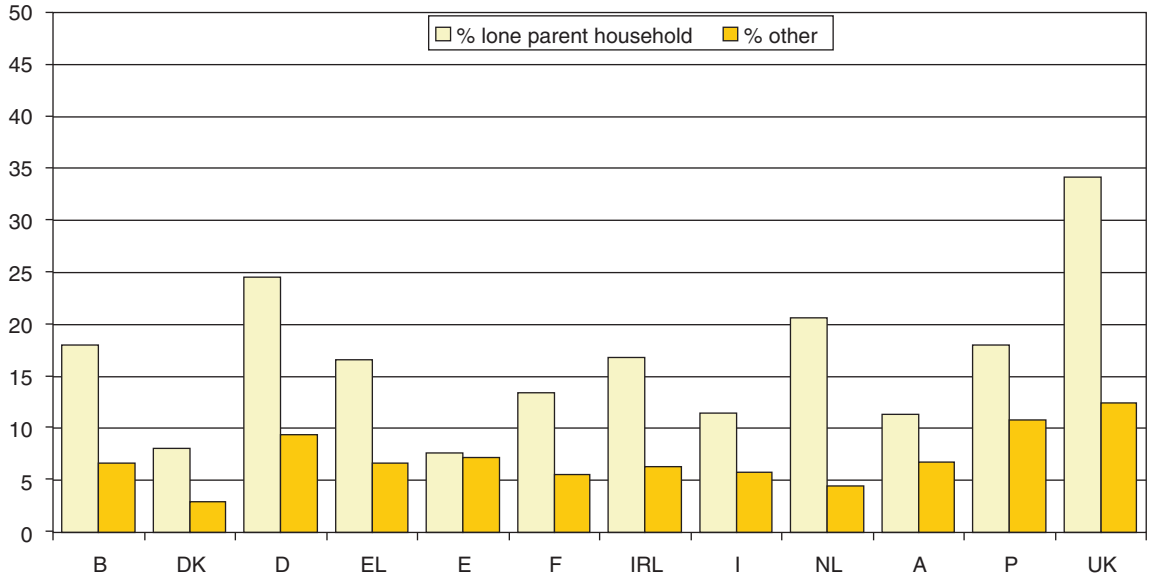
Work and labour market related variables clearly have a substantial influence on risk of exposure to persistent deprivation but, as we shall see, family characteristics also figure prominently in this picture. The key variables on which we shall focus are experience of separation/divorce and single-parenthood. Once again, our unit of analysis is the reference person. In Figure 7.13, we examine the relationship between persistent deprivation and the breakdown of a partnership. Where the reference person has not been separated or divorced the highest rate of persistent deprivation is 12 percent for the UK and the lowest is three percent in Denmark. For those separated or divorced the minimum levels of deprivation persistence are eight and nine percent in Denmark and Italy respectively, the highest, with 33 percent, in the UK. In Luxembourg and Germany at least one in four are above the threshold and in Belgium, Greece, Ireland and Portugal this is true for at least one in five.

Figure 7.13: Persistent deprivation at the 60% line by whether or not the household reference person is separated or divorced



In Figure 7.14 we show the impact of being a lone-parent household. For households who do not fall into this category the highest rate of persistent deprivation of 12 percent is found in the UK and the lowest of three percent in Denmark. For lone parent households the lowest rate of eight percent is found in Denmark and Spain, and the highest of 34 percent in the UK. In Germany one in four lone-parent households are exposed to persistent deprivation, whereas in most other countries the respective figures range between 10 and 18 percent.

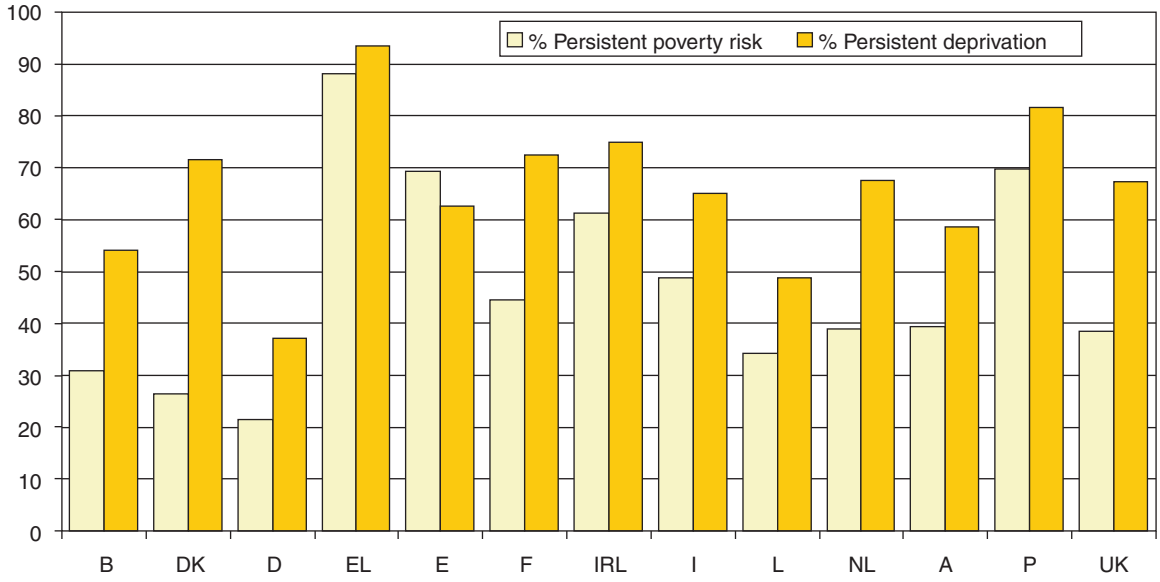
Figure 7.14: Persistent deprivation at the 60% line by being a lone-parent household



It is clear that any account of poverty and social exclusion requires that we take account of both persistent risk of income poverty and persistent deprivation. Availability of information on persistent income poverty constitutes a significant advance on cross-sectional information. However, persistent deprivation is also an important phenomenon in its own right. In our final analysis we seek to provide an illustration of this point by showing the relationship of both types of deprivation to economic strain.

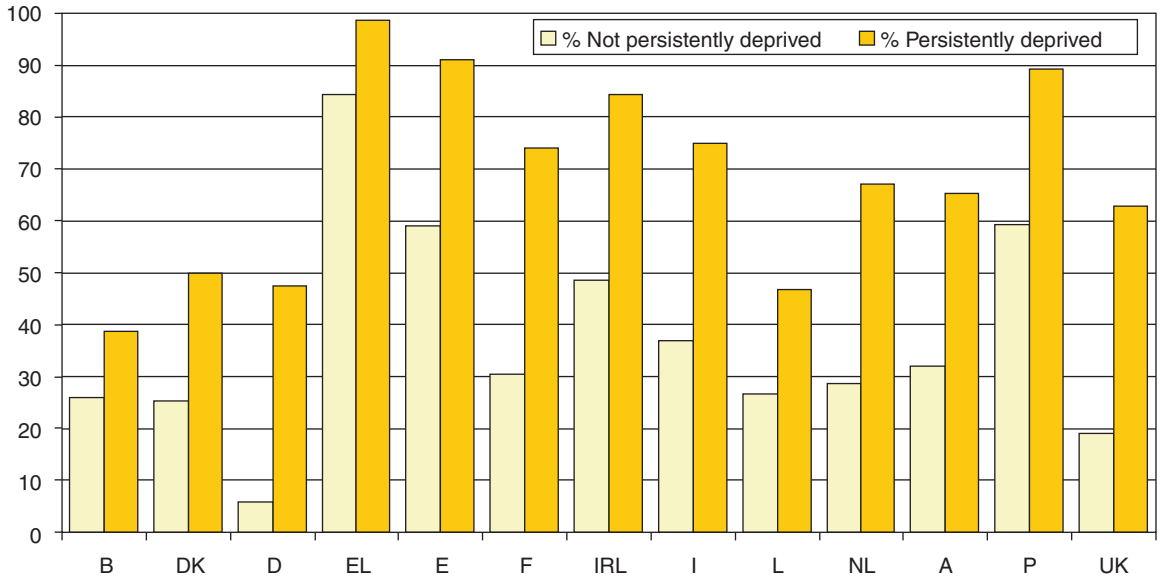
In Figure 7.15 we compare the extent to which households have difficulty or a great deal of difficulty in making ends meet for both persistent risk of income poverty and persistent deprivation. In all countries rates of economic strain are higher among the persistently deprived than among those persistently at risk of income poverty, in many cases substantially so. An extreme example of this is Denmark, where about one in four of those at risk of income poverty are in households experiencing economic strain, compared to three out of four in deprived households. The respective figures for the Netherlands are 39 and 68 percent, for the UK 39 and 67 percent, and for Ireland 61 and 75 percent. These differences are substantially less pronounced in the Southern European counties. As a consequence, if we leave these countries aside, the level of economic strain among those persistently at risk of income poverty ranges from 22 percent in Germany to 61 percent in Ireland whereas among the persistently deprived it runs from 37 percent in Germany to 75 percent in Ireland. In eleven of the thirteen countries more than one in two of the persistently deprived resides in a household experiencing economic strain compared to five out of thirteen in the case of persistent risk of income poverty.

Figure 7.15: Percent experiencing economic strain by persistent poverty risk and persistent deprivation by country at the 60% line



Further proof of the independent impact of persistent deprivation is provided in Figure 7.16. In every case, those who are persistently deprived experience a great deal more economic strain. Thus in case of Ireland, the respective percentages are 31 and 74 percent, in the UK 19 and 63 percent, in Belgium 26 and 39 percent and in Italy 49 and 84 percent. If we exclude the extreme values for the less affluent Southern European countries, for those persistently at risk of income poverty but not persistently deprived, the range of economic strain runs from six percent in Germany to 49 percent in Ireland. For those who experience both forms of persistence problems, the range runs from 47 percent in Germany and Luxembourg to 84 percent in Ireland. In ten of the thirteen countries more than one in two of respondents resides in households experiencing economic strain.

Figure 7.16: Extent of economic strain by persistent deprivation among those at-risk-of persistent poverty



One final point that should be made is that by taking Figures 7.15 and 7.16 together we can see that persistent poverty risk and persistent deprivation do not interact in a fashion that is cumulative. The reason why rates of economic strain are not necessarily the same for those who are both persistently deprived and persistently at risk of income poverty as for those who are only persistently at risk of income poverty is that persistent deprivation has an extremely strong impact on those who are not persistently at risk of poverty[50].

7.7. The 'fuzzy set' approach towards income poverty risk and lifestyle deprivation

This section provides additional measures aimed at illuminating the extent to which the incidence of income poverty risk and lifestyle deprivation overlap for individuals and households in the population at any given time, and how persistent or otherwise are these patterns of overlap over time. We adopt the so-called 'fuzzy set' approach first introduced in Chapter 4 for determining the propensity to income poverty risk but subsequently (in Chapter 6) also used to look into the relative degree of lifestyle deprivation. Unlike in the previous two sections we refer here to the overall lifestyle deprivation index that represents a combination of all non-monetary indicator items in the ECHP and not solely those under the basic and secondary deprivation dimensions.

7.7.1. At-risk-of income poverty and lifestyle deprivation: cross-sectional analysis

Table 7.7 presents four types of measures, for each wave and averaged over waves one to four:

- **P**: at-risk-of income poverty rate
- **D**: overall lifestyle deprivation rate
- **M**: 'manifest' deprivation rate, representing the propensity to both income poverty risk and lifestyle deprivation simultaneously
- **L**: 'latent' deprivation rate, representing the propensity to either of the two, income poverty risk or lifestyle deprivation.

The measures M and L represent the income poverty risk and lifestyle deprivation measures considered in combination.

([50]) For further discussion, see Whelan, C.T. et al (2002) "Persistent Deprivation in the European Union", *Schmollers Jahrbuch: Journal of Applied Social Science Studies*, 122.1:31-54

The first measure (M) represents the individual being subject to both income poverty risk and lifestyle deprivation; one may think of this as the 'manifest' or 'more intense' degree of deprivation. The second measure (L) represents the individual being subject to at least one of the two, income poverty risk or lifestyle deprivation; one may think of this as the 'latent' or 'less intense' degree of deprivation.

The income poverty risk and lifestyle deprivation rates are numerically similar, and countries in Figure 7.17 have been arranged according to their average value. Generally, in the better-off countries, lifestyle deprivation rates are a little lower than at-risk-of poverty rates. In the less well-off countries, the former are higher – marked so in the case of Portugal and Greece. Similar results have been discussed in detail in Chapter 6.

Table 7.7. Cross-sectional "manifest" (M) and "latent" (L) deprivation rates: ratio to poverty risk/deprivation rates

	Wave 1		Wave 2		Wave 3		Wave 4		average W1-W4	
	M/X	L/X	M/X	L/X	M/X	L/X	M/X	L/X	M/X	L/X
DK	0.30	1.70	0.28	1.72	0.28	1.72	0.27	1.73	0.28	1.72
NL	0.37	1.63	0.34	1.66	0.38	1.62	0.37	1.63	0.36	1.64
A	0.35	1.66	0.35	1.65	0.37	1.63	0.37	1.63	0.36	1.64
B	0.41	1.59	0.43	1.57	0.40	1.60	0.42	1.58	0.42	1.58
F	0.44	1.56	0.46	1.54	0.47	1.53	0.46	1.54	0.46	1.54
IRL	0.50	1.50	0.51	1.49	0.51	1.49	0.50	1.50	0.51	1.49
I	0.47	1.53	0.46	1.54	0.45	1.55	0.42	1.58	0.45	1.55
E	0.48	1.52	0.49	1.51	0.45	1.55	0.48	1.52	0.47	1.53
EL	0.51	1.49	0.50	1.50	0.48	1.52	0.50	1.50	0.50	1.50
P	0.50	1.50	0.53	1.47	0.52	1.48	0.54	1.46	0.52	1.48
Average	0.44	1.56	0.45	1.55	0.44	1.56	0.45	1.55	0.44	1.55

The denominator in the ratio is the corresponding average of income at-risk-of poverty and lifestyle deprivation rates, X=(P+D)/2

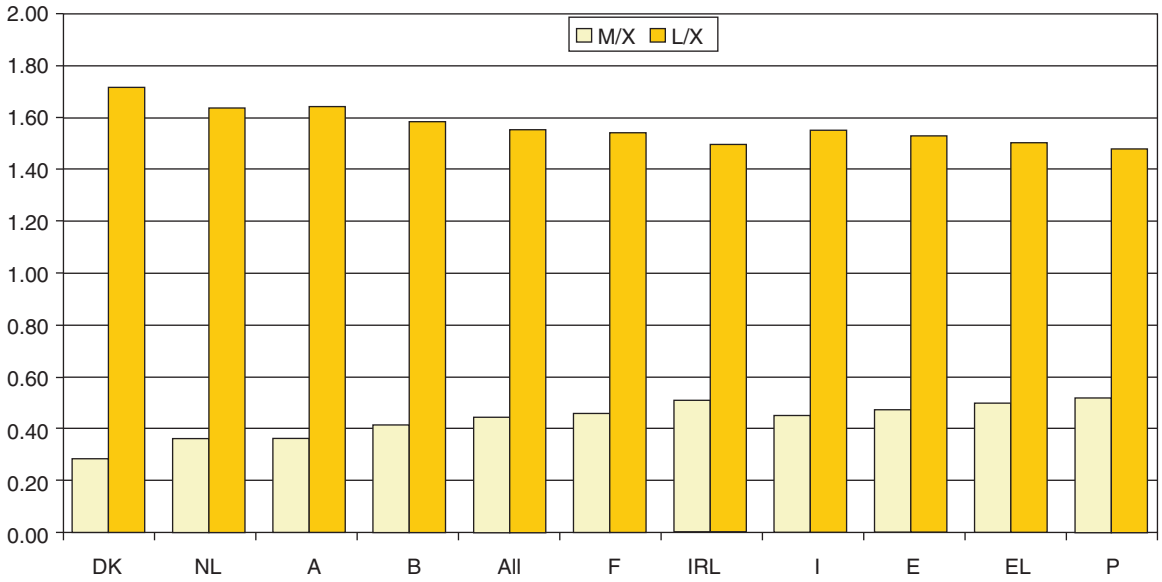
Figure 7.17: Cross-sectional measures of poverty risk and deprivation

M "Manifest deprivation" rate (subject to both income poverty risk and life-style deprivation)
P income at-risk-of poverty rate
D life-style deprivation rate
L "Latent deprivation" rate (subject to income poverty risk and/or life-style deprivation)

Averaged over four waves, the manifest deprivation rates (combined incidence of income poverty risk and lifestyle deprivation) are six percent or lower in Denmark, the Netherlands, Austria and Belgium; these are 10 percent or higher in Spain, Greece and Portugal. The pattern is very consistent across the waves.

Corresponding figures for the latent deprivation rates (incidence of income poverty risk or of lifestyle deprivation, or both) are 19 percent or lower in Denmark and the Netherlands; these are 32 percent or higher in Spain, Greece and Portugal, with the figure as high as 42 percent in the last member country. Thus on the average, at any time 42 percent of the population in Portugal is subject at least to one type of hardship: the risk of income poverty or lifestyle deprivation. Again, the pattern is very consistent across the waves.

Figure 7.18: Ratio of cross-sectional "manifest" (M) and "latent" (L) deprivation rates to (the average of) income at-risk-of poverty /lifestyle deperivation rates (X)



The last panel of Table 7.7 and Figure 7.18 shows the relationship of the combined measures (M and L) to the separate measures of income poverty risk and lifestyle deprivation (P and D). The figures show the ratio of the former to the average of the latter.

On the average, a little over 40 percent of those subject to poverty risk/lifestyle deprivation are disadvantaged in both these respects (i.e. are in the state of 'manifest deprivation'). The overlap varies from around 30 percent in Denmark to 50 percent or a little higher in Ireland, Greece and Portugal. Hence, as already noted earlier, the overlap between income poverty risk and lifestyle deprivation is significant but not high.

A noteworthy and interesting aspect of the results is that the incidence of overlap increases directly with the level of income poverty risk or of lifestyle deprivation in the country. Individuals in countries with higher levels of income poverty risk or of lifestyle deprivation are, in addition, more likely to be subject to both types of disadvantage simultaneously. This tends to increase the impact of disparities among Member States in the at-risk-of poverty and lifestyle deprivation rates.

The proportions subject to either of the two forms of disadvantage (i.e., those in the state of 'latent deprivation'), are, by definition, complements of the above. Thus in Denmark, 72 percent more persons are subject to one or the other form of disadvantage than the number subject to either of these aspects of disadvantage taken separately. At the other end, in Portugal, 48 percent more persons are subject to one or the other form of disadvantage than the number subject to either of these aspects of disadvantage taken separately. Note that, the higher this figure, the more 'shared' or spread-out (hence more egalitarian in a sense) is the incidence of the two forms of disadvantage.

7.7.2 Income poverty risk and lifestyle deprivation: the dynamic perspective

How persistent or otherwise is the pattern of overlap of income poverty risk and non-monetary lifestyle deprivation over time? Table 7.8 presents the incidence and the degree of persistence of manifest and latent deprivation in relation to those of their constituent parts, viz. income poverty risk and lifestyle deprivation. For each of the four measures or rates, namely income poverty risk (P), lifestyle deprivation (D), both together (manifest deprivation, M), and either (latent deprivation, L), the table shows:

- the mean rate, averaged over waves 1-4 of ECHP
- the persistence rate, i.e. the average propensity to be subject to a given type of deprivation for at least three of the four years
- the any-time rate, i.e. the average propensity to be subject to a given type of deprivation for at least one of the four years
- and the ratios of the persistence and any-time rates to the corresponding average rates.

In order to bring out the pattern of variation across countries, countries have been arranged according to the average at-risk-of poverty/lifestyle deprivation rate in Figure 7.19, as previously.

The population subgroups most disadvantaged are those in persistent deprivation in terms both of the risk of income poverty and non-monetary lifestyle deprivation, indicated by the manifest persistent deprivation rate (PM). This rate varies from a mere one percent in Denmark and three to five percent in the Netherlands, Austria and Belgium, to eight to nine percent in Spain and Greece and 12 percent in Portugal. The simple average over countries is six percent. In a more detailed analysis, it would be important to examine the social identity and circumstances of these subgroups.

Table 7.8 Persistent (P) and any-time (A) rates for various measures of poverty risk and deprivation

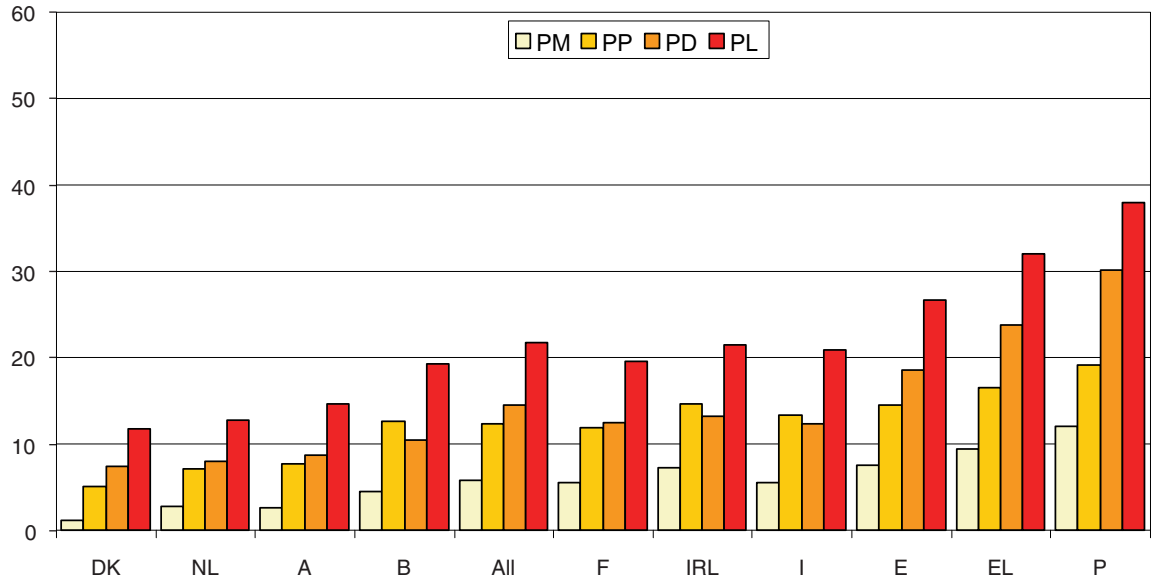
Income at-risk-of poverty rate (P)						Overall lifestyle deprivation rate (D)				
				ratio to mean					ratio to mean	
	mean	persistent	any-time	persistent	any-time	mean	persistent	any-time	persistent	any-time
	P	PP	AP	PP/P	AP/P	D	PD	AD	PD/D	AD/D
B	17	13	30	0.73	1.73	14	10	23	0.77	1.65
DK	9	5	19	0.56	2.14	10	7	18	0.73	1.74
EL	21	17	36	0.77	1.67	28	24	41	0.85	1.46
E	20	15	35	0.73	1.74	22	19	34	0.84	1.51
F	16	12	26	0.76	1.67	15	13	24	0.81	1.56
IRL	19	15	31	0.77	1.63	16	13	26	0.80	1.59
I	18	13	32	0.73	1.76	16	12	25	0.79	1.61
NL	11	7	20	0.67	1.92	10	8	17	0.77	1.64
A	13	8	24	0.60	1.87	12	9	20	0.72	1.62
P	23	19	36	0.82	1.55	34	30	46	0.89	1.35
Average	17	12	29	0.72	1.77	18	15	27	0.80	1.57

"Manifest deprivation" rate (M)						"Latent deprivation" rate (L)				
				ratio to mean					ratio to mean	
	mean	persistent	any-time	persistent	any-time	mean	persistent	any-time	persistent	any-time
	M	PM	AM	PM/M	AM/M	L	PL	AL	PL/L	AL/L
B	6	**5**	12	0.70	1.84	24	19	**39**	0.79	1.59
DK	3	**1**	6	0.44	2.26	17	12	**30**	0.71	1.80
EL	12	**9**	21	0.76	1.71	37	32	**53**	0.86	1.44
E	10	**8**	18	0.73	1.72	32	27	**48**	0.84	1.50
F	7	**6**	12	0.77	1.67	24	20	**37**	0.82	1.53
IRL	9	**7**	15	0.80	1.62	26	21	**40**	0.82	1.53
I	8	**6**	14	0.72	1.77	26	21	**42**	0.79	1.59
NL	4	**3**	7	0.70	1.84	17	13	**29**	0.75	1.71
A	5	**3**	9	0.56	1.89	20	15	**33**	0.72	1.63
P	15	**12**	23	0.81	1.57	42	38	**57**	0.89	1.34
Average	8	**6**	14	0.70	1.79	27	22	**41**	0.80	1.56

Py Persistent "y" (any 3 of 4 years)
Ay Any-time "y" (one or more of 4 years)
xP income at-risk-of poverty rate (fuzzy measure, scaled to correspond to 60% of national median poverty rate)
xD lifestyle deprivation rate (scaled to match simple average of P for EU)
xM "Manifest deprivation" rate, subject simultaneously to both income poverty risk and lifestyle deprivation
xL "Latent deprivation" rate, subject to income poverty risk and/or lifestyle deprivation
Mean: simple average over W1-W4 for the longitudinal panel.
Persistent: poverty risk/deprivation for at least three of the four years (waves 1-4)
Any-time: poverty risk/deprivation for one or more of the four years; Austria: data (available for only 3 years) have been imputed to obtain 4-year sequence on the basis of the pattern in other countries. Similar modelling was used to construct cross-sectional measures for Finland for waves 1 and 2

The population subgroups subject to deprivation but not necessarily in the extreme form are those who are deprived either in terms of income or lifestyle indicators (but not necessarily both), and at some time (but not necessarily persistently) over the four year period. Averaged over countries, their proportion is 41 percent. Hence a very substantial minority of the EU population are subject to income poverty risk or other forms of lifestyle deprivation for at least some of the time during a four year period. The remaining 59 percent are more fortunate. Across Member States, the rates of latent any-time deprivation (AL) vary from 30 to 33 percent in Denmark, the Netherlands and Austria, to 48 percent in Spain, 53 percent in Greece, and 57 percent in Portugal. Hence a majority in the last mentioned countries are subject to the risk of income poverty or other forms of lifestyle deprivation at some time during the four year period.

Figure 7.19. At-risk-of-persistent poverty and deprivation rates

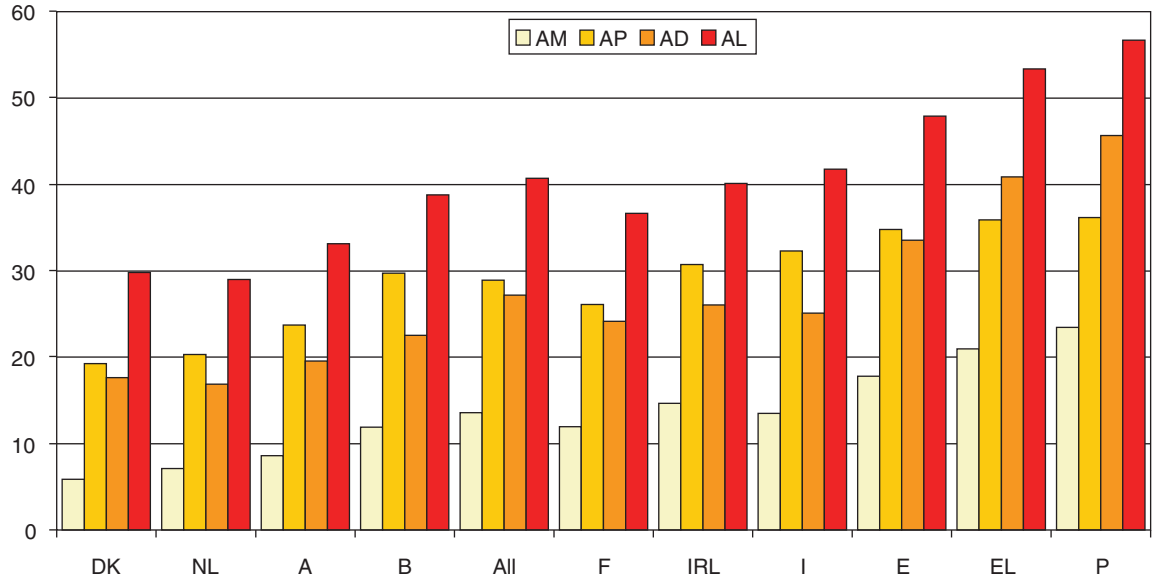


PM Persistent "Manifest deprivation" rate (subject to both income poverty risk and life-style deprivation)
PP Persistent income at-risk-of poverty rate
PD Persistent life-style deprivation rate
PL Persistent "Latent deprivation" rate (subject to income poverty risk and/or life-style deprivation)

The ratio of persistent deprivation rate to the level of deprivation at any one time is indicative of how a given level of deprivation in a society tends to be concentrated on the same individuals and households. The higher this ratio, the more serious is the impact of a given level of deprivation in segmenting the society.

Again, as in the combined incidence of the risk of income poverty and lifestyle deprivation in the previous subsection, the persistence of the incidence of deprivation over time tends to accentuate existing differentials. In countries with higher levels of poverty risk or deprivation, different aspects of deprivation tend not only to be more concentrated on the same individuals and households, but they also tend to be more persistent for them, thus confounding the impact of deprivation across lifestyle dimensions and time.

Figure 7.20. Rates of any-time poverty risk and deprivation



AM Any-time "Manifest deprivation" rate (subject to both income poverty risk and life-style deprivation)
AP Any-time income at-risk-of poverty rate
AD Any-time life-style deprivation rate
AL Any-time "Latent deprivation" rate (subject to income poverty risk and/or life-style deprivation)
Any-time: poverty risk/deprivation for one or more of the four years and/or lifestyle deprivation)

7.8. Conclusions

This chapter took as its point of departure findings from a number of European countries suggesting that the relationship between the risk of income poverty and lifestyle deprivation was weaker than generally assumed, and varied systematically across different dimensions of deprivation. Income at-risk-of poverty lines may then be problematic in identifying those experiencing extreme lifestyle deprivation; income and non-monetary deprivation indicators provide rather different types of information that can be fruitfully combined for analytic and policy purposes. In this chapter we made use of data from the first four waves of the ECHP to explore such issues.

Statistical analysis shows that five distinct dimensions of deprivation emerged across the range of ECHP countries confirming the consistency of this structure of deprivation across individual countries. The crucial finding was thus that it is possible to make European comparisons across different dimensions of deprivation with confidence that one is measuring the same phenomena. With regard to the relationship between income poverty risk and deprivation, a consistent finding across all countries was that the strongest association was with the basic deprivation dimension, followed by the secondary items. On the other hand, the degree of association with the housing and environmental dimensions of deprivation was extremely low in the majority of countries. This is particularly important because housing items have tended to figure very prominently in measures intended to reflect generalized deprivation. It is clear, however, that in seeking determinants of such deprivation, we must look beyond current income to factors such as urban-rural location, stage of the life-cycle and the impact of social housing provision.

The social exclusion perspective has focused attention on the processes leading to exposure to multiple disadvantage and social isolation. In relation to items relating to social isolation and lack of participation in organizations we found that the items available to us did not constitute unambiguous measures of social exclusion. The extent of cross-national variation clearly indicates that sociability in societies has its own distinctive dynamics with longer term roots in very different paths of economic and cultural development. The nature of the health indicators available to us would make it unwise to attempt to base robust conclusions relating to social exclusion on analysis which is confined solely to these indicators

Advocates of the social exclusion perspective have frequently criticized poverty analysis for being static and uni-dimensional. However, these are by no means necessary features of poverty analysis and in this chapter

we have made use of the ECHP in order to examine the extent of multiple deprivation. Those individuals exposed to multiple deprivation constitute prime candidates for exposure to multiple disadvantage and a spiral of precariousness. However, our analysis showed that even in the case of lifestyle deprivation, where we might expect relationships to be most straightforward, the observed pattern does not conform to one of systematic multiple disadvantage. This is perhaps most vividly illustrated by the fact that, in general, those facing a persistent risk of income poverty are not a great deal more likely than others to consider that they live in areas affected by vandalism or crime and the vast majority do not consider themselves to live in such areas.

The impact of the persistent risk of income poverty on lifestyle deprivation is variable and for a number of dimensions, extremely modest. Those persistently at risk of poverty are clearly exposed to relatively high risks of such deprivation. However, even when applying a more restricted definition of multiple deprivation than that which features in the social exclusion literature, only a minority fulfill the requirements. Furthermore, in all countries those persistently at risk of income poverty constitute a minority of the multiply deprived. Extending the analysis to incorporate additional dimensions or increasing the stringency of our conditions would reduce the numbers of multiply deprived among the persistently poor to negligible levels. The fact that persistent income poverty risk exerts multiple influences does not necessarily result in extremes of multiple disadvantage on any substantial scale. The relationships we observe are probabilistic and, as is true in the social sciences as a whole, even what we consider to be strong relationships often involve modest levels of correlation. It is clear that a great many factors other than persistent income poverty risk play a role in determining deprivation and these factors will vary across dimensions. Thus the contrast involving multiple disadvantage relates largely to socio-economic categories rather than specific groups of individuals. Our argument is not that such structuring of disadvantage is unimportant, but that it leads to different outcomes and requires different solutions than seems to have been generally assumed.

To understand deprivation we must look beyond the cleavage between a multiply deprived and excluded minority and a comfortable majority. A more accurate picture is likely to be that painted by a perspective that sees deprivation as a vicissitude (sometimes transitory) which strikes broadly and across certain socio-economic categories in response to the vagaries of economic and social policy and life-circumstances.

As awareness has increased that some of the difficulties associated with the income line approach arise from the fact that current income provides an extremely imperfect measure of permanent income or command over resources, increased attention has been directed to the use of persistent at-risk-of poverty measures. Our analysis shows that such measures do bear a significantly closer relationship to deprivation and come much closer to displaying the properties we require of a risk of poverty measure. However, to date, most of the concern with issues of dynamics has focused on income poverty risk and very little has concentrated on direct measures of deprivation. This may to some extent be due to an implicit assumption that deprivation is more stable than low income. However, our analysis shows that this is not the case and that, over a four-year period, movement into and out of the higher ranges of the deprivation continuum was just as frequent as movement above and below the 60 percent median income at-risk-of poverty line. Furthermore, while there is a clear and systematic relationship between persistent income poverty risk and deprivation, the degree of overlap is far from perfect.

It is important to stress that evidence for the existence of a substantial degree of poverty dynamics does not imply that either current or persistent deprivation is unstructured. As we have seen, in addition to the impact of the risk of persistent income poverty, a variety of resource related variables, such as labour market experience and social class, and need-related variables such as marital status and household structure make it possible to achieve a significant degree of predictability in relation to the risk of exposure to deprivation.

Our findings suggest a number of implications. First it is clear that in attempting to understand poverty and social exclusion it would be unwise to rely solely on income based measures. A vivid illustration of this is provided by the limited extent to which the persistent risk of income poverty allows us to explain the extent to which households experience severe economic strain and the degree to which persistent deprivation exerts an independent influence. Neither, however, do we suggest dispensing with income measures. Rather we would argue that the complexity of the results we have presented underline the danger of attempting to understand the nature and extent of poverty risk while relying on any single measure.

There are also important analytic and policy issues which arise from the fact that considerable short-term mobility coexists with a high degree of social structuring of deprivation in terms of relatively unchanging

characteristics of individuals such as social class, education and labour market experience. Analysis of the determinants of short term movements into and out of income poverty risk and exposure to extreme deprivation would require a rather different approach to that adopted in this chapter and, ideally, a longer run of panel data. It is clearly important to distinguish between short and longer-term poverty and social exclusion and to develop an understanding of the factors that prompt such movement. It is perhaps even more important, however, that concern with such issues and the analytic challenges they present should not obscure the fact that, irrespective whether individuals are at risk of income poverty and/or deprived at any particular point in time, the social categories exposed to high risk levels are highly predictable. In policy terms increasing concern with individual responsibility and agency should not be allowed to distract us from the extent to which life chances continue to be socially structured by a set of influences that are shaped by larger socio-economic and political forces.

8. The Role of Social Transfers

In providing social cash transfers, the public sector redistributes resources and contributes to alleviation of poverty and exclusion. This chapter analyses the importance of public social transfers in disposable incomes, their distributive patterns and their effects in overcoming income poverty. The three sections below consider these issues in turn.

Cash transfers examined include pensions;[49] unemployment benefits; sickness and invalidity benefits; family related benefits; education related benefits; housing allowances; social assistance; and other personal public benefits.[50]

Different types of cash transfers have different objectives, especially with regard to their re-distributive function. In particular, public pensions constitute to their largest part an earnings replacement function, whilst part of the non-pension transfers, e.g. family benefits or social assistance, have either a more universal or else a targeted character which is not necessarily related to past earnings. The analysis below therefore looks at pensions and non-pension transfers separately. It also distinguishes between the working-age population (those aged 20 to 60) and the pension-age population (61 and over).[51]

8.1. The levels and distributions of social transfers

The importance of public social transfers is documented by the fact that three out of four European citizens receive some kind of transfers (Table 8.1).[52] This percentage varies between some 50 percent in Greece and Italy and more than 85 percent in the Nordic countries, Belgium, Ireland, Luxembourg and Portugal. In three countries, the share of recipients slightly declined by two to three percentage points between 1994 and 1997: Greece, Spain and Ireland. It increased in Germany, France, Italy, Luxembourg, Austria and, in particular, in Portugal (+6 percentage points).

The share of recipients of transfers other than pensions – i.e. benefits related to unemployment, sickness, family and low-income situations – is lower, but still exceeds 50 percent on European average. Two pairs of countries stand out: on the one hand Greece and Italy where the share of recipients is as low as 20 percent, and Denmark and Finland with very high shares, 75 and 83 percent, on the other. In all other countries (Spain excepted), about two thirds of the population live in households which receive some non-pension transfers.

The share of pension recipients in the population is around one third in most countries.[53] It is significantly lower in the Netherlands and in Denmark (app. 20 percent), where non-pension benefits play an important role, and significantly higher in Greece (36 percent) and Italy (40 percent), the two countries with the lowest share of nonpension recipients. The trend in pension recipients since 1994 was generally upwards, with the exception of the Netherlands and Austria.

How important are public cash transfers in the income package of Europeans? On average, transfers make up one third of the disposable income, complementing resources from the market, mainly earnings. The share of transfers in total income (the 'transfer share') is lower in the Southern European countries, especially Greece, and higher in the Nordic countries, especially Finland,[56] and in Belgium. In the latter country, the transfer share increased by five percentage points in the late 1990s, whilst it decreased by the same amount in Ireland. Other

(51) Pensions here include public state pensions as well as occupational pensions even if these are not publicly managed, yet which are state regulated. Also included are private pensions, however their share among the currently retired is so small as not to make any substantial difference in the analysis.

(52) The analysis excludes any type of in-kind transfers, such as public education or health. The importance of providing such inkind transfers varies between countries, and this should be born in mind when interpreting the results below.

(53) As public pensions are the main component of income for retired persons in all EU countries, different transfer shares in the incomes of the entire population as well as effects on income poverty risk across EU countries might simply reflect the different shares of pensioners in the population.

(54) It should be stressed, that the analysis is based on equivalized incomes per person throughout. This means that, for instance, in Belgium, the 30 percent share refers not to pension recipients but rather to those persons who live in households with incomes from pensions.

(55) The shares of pensions and non-pension transfer recipients taken together exceed those of all transfers because of double recipients.

(56) However, see ECHP methodological note in Appendix 2.

countries experiencing an increase in 'transfer shares' of three to four percentage points were Germany and Italy, due to non-pension transfers in the former and entirely due to pensions in the latter country.

In general, developments of 'transfer shares' over the late 1990s went in line with the proportion of recipients. There are, however, two noteworthy exceptions: Belgium and Greece, where the share of transfers in disposable income increased over the years while the proportion of recipients declined, although from a very different level. This indicates a growing importance of transfers in the incomes of recipients in those countries.

Pensions constitute more than half of all social transfers. Their share is higher in the Southern European countries: close to 90 percent of all transfers in Greece and Italy and two thirds in Portugal and Spain. This is due to both a higher proportion of pension beneficiaries and lower level of other benefits, as will be seen below.

All other transfers taken together form less than half of all transfers. Their share exceeds the one of pensions clearly only in three countries: in Denmark, Ireland and Finland (67 percent share).

Table 8.1 Social transfers in Europe: global indicators

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Share of recipients 1997																	
All social transfers	88	85	81	49	58	78	88	51	86	80	85	88	93	87	81	78	73
changes 1994-97	-1	0	2	-3	-3	2	-2	3	3	-1	3	6	..	..	0	1	..
Non-pension transfers	68	75	60	20	34	60	81	19	66	65	69	68	83	71	64	60	52
changes 1994-97	-2	1	1	-2	-4	2	-3	-2	1	-1	4	5	..	..	-2	0	..
Pensions	30	20	28	36	33	28	22	40	29	19	36	36	33	30	28	30	31
changes 1994-97	3	0	2	0	1	2	0	5	2	-1	-1	3	..	..	1	1	..
Share in disposable income 1997																	
All social transfers	42	36	32	25	32	33	33	32	33	32	33	28	53	40	36	35	33
changes 1994-97	5	1	3	1	0	0	-5	4	2	-1	0	2	..	..	-1	1	
Non-pension transfers	20	22	13	3	12	14	22	5	14	17	13	9	35	21	18	16	13
changes 1994-97	3	0	3	0	-1	0	-4	-1	1	0	1	0	..	..	-2	0	..
Pensions	21	14	20	22	20	19	11	27	19	15	19	19	18	19	17	19	20
changes 1994-97	2	0	0	1	1	0	-1	5	1	0	-1	2	..	..	1	1	..

Source: ECHP 1994, 1997. Notes: Reference period is 1994 to 1996 for Luxembourg and 1995 to 1997 for Austria. EU15 refers to the weighted average, 'Average' refers to the unweighted country average. Changes are in percentage points and exclude Finland and Sweden

'Transfer shares' are not the same for people with low incomes as they are for those with higher incomes (Table 8.2). Greece and Italy apart, they constitute a larger part than earnings or other labour market income in the budget of those with low incomes, approximately between 50 and 80 percent. Their share is between 26 and 63 percent for persons with middle incomes, between 15 and 30 percent for persons with high incomes and between eight and 25 percent for persons with very high incomes. On European average, the ratio of 'transfer shares' in low to very high incomes is 3 : 1, and this is found in most of the EU countries. Italy stands out in that it combines the lowest 'transfer share' in low incomes with the highest one in very high incomes, resulting in a ratio as low as 1.8 : 1. The 'transfer shares' are the same for low and middle incomes in Italy. On the other hand, 'transfer shares' are much more differentiated across income groups and reach ratios of 4 : 1 and above in Denmark, Finland, Ireland and the United Kingdom.

This pattern — decreasing 'transfer shares' with increasing income groups — is especially due to non-pension transfers among the working-age population. The ratio of non-pension 'transfer shares' between low and very high incomes is approximately 10 : 1 on European average. In general, non-pension transfers constitute less than 10 percent of the incomes of those with high and very high incomes. Their share in the budget of low-income groups differs greatly: it is particularly important in Belgium, Ireland and Finland (60 to 70 percent) and, to a lesser extent, in Sweden and the United Kingdom (50 percent) but very low in Greece and Italy (nine percent). Non-pension 'transfer shares' in low incomes are also below the European average in Portugal, Spain, Austria and Luxembourg (20 to 30 percent).

Pension shares, on the other hand, do not display a significantly decreasing pattern with increasing incomes, reflecting the insurance and earnings replacement character of most European public pension schemes. In a

majority of countries, there are no significant differences in pension shares across income shares, and in some countries (e.g. Luxembourg and the Netherlands), pensions are somewhat more important for middle and even higher income groups than for lower income groups. The only exceptions are Denmark, Ireland and the United Kingdom, where pension shares are significantly lower (half or less) for high and very high incomes, indicating a higher importance of capital income (private pensions) in the budget of well-off pensioners in these countries.

Table 8.2 Transfer shares in disposable incomes, by four income groups

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
All social transfers (entire population)																	
low income	78	68	60	40	48	56	70	35	50	55	57	49	77	61	67	58	55
middle income	44	43	34	26	35	35	37	36	38	34	34	26	63	46	35	38	36
high income	22	15	18	17	26	21	12	26	20	22	20	17	30	23	19	21	21
extreme income	24	12	17	13	13	21	8	20	15	22	18	16	19	18	14	17	17
Non-pension transfers (working-age population)																	
low income	59	44	45	9	29	40	63	9	30	48	30	20	68	53	50	40	34
middle income	22	28	13	3	13	15	26	4	16	20	15	10	47	26	16	18	14
high income	9	9	5	1	7	5	5	2	6	7	7	5	17	8	8	7	6
extreme income	7	6	2	0	3	4	2	2	2	5	4	3	9	4	3	4	3
Pensions (pension-age population)																	
low income	81	89	81	71	74	77	75	79	64	61	78	77	86	77	85	77	80
middle income	83	69	83	74	73	79	62	83	82	84	69	60	84	83	68	76	78
high income	72	44	64	61	56	79	40	65	59	79	60	52	74	66	52	62	64
extreme income	59	33	56	51	41	71	36	55	58	73	66	54	77	59	47	56	55

Source: ECHP 1994, 1997. Notes: Reference period is 1994 to 1996 for Luxembourg and 1995 to 1997 for Austria. EU15 refers to the weighted average, 'Average' refers to the unweighted country average. Changes are in percentage points and exclude Finland and Sweden. "Low income": below 60% of median; "middle income": between 60 and 120% of median; "higher income": between 120 and 180% of median; "extreme income": above 180% of median.

More insight on the importance of social transfers can be gained when examining their weight in the incomes of only those who are receiving them. This is done in Table 8.3.

Table 8.3 Weight of social transfers in disposable incomes of recipients

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
All social transfers	48	42	40	51	55	43	38	61	38	41	38	32	57	46	44	45	45

Source: ECHP 1997. Notes: Data for Luxembourg refer to 1997. EU15 refers to the weighted average, 'Average' refers to the unweighted country average.

Overall, the weight of transfers in the incomes of recipients is some four to nine percentage points higher than the respective share in incomes of all persons, and the European average amounts to 45 percent. The difference is, however, much more striking for the countries which display the lowest 'transfer shares': In Greece, Spain and Italy, the weight of transfers in the incomes of recipients is, in fact, above the European average. Italy, for instance, displays the highest value across Europe with 61 percent. This means that in those three countries a lower percentage of transfer recipients rely to a greater extent on social transfers than in the other European countries.

8.1.1. Pensions

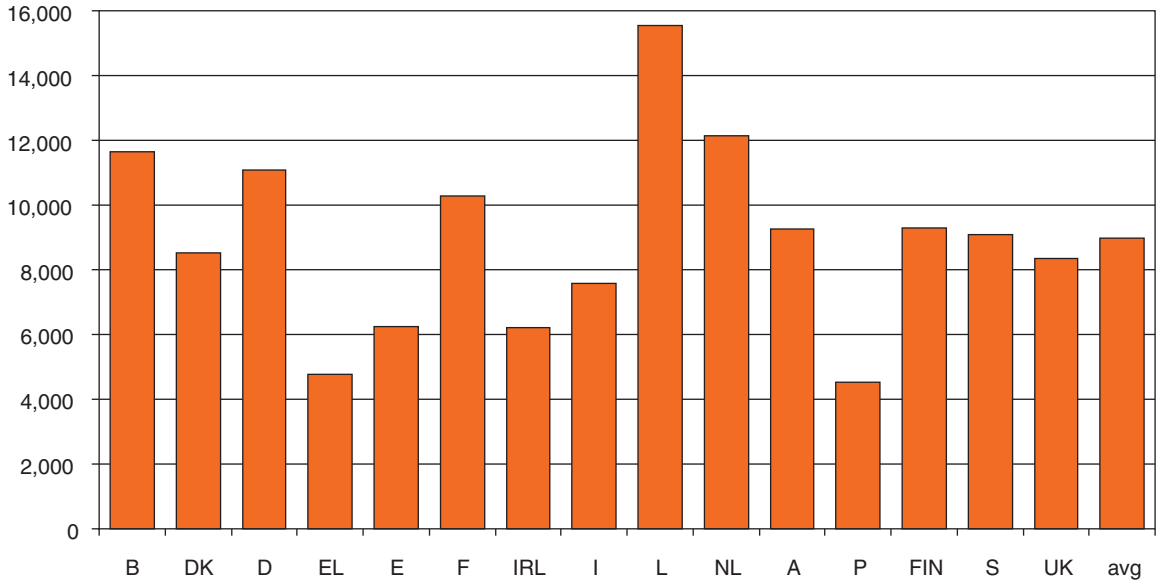
On average, across Europe, pensions constitute 79 percent of the income of pension recipients. The percentages are lowest in the United Kingdom and Ireland (some 70 percent) and highest in Belgium and Finland (84 and 91 percent respectively).

Table 8.4 Weight of pensions in disposable incomes of recipients

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Pensions	84	76	82	75	75	81	71	80	77	89	73	72	91	80	72	79	79

Source: ECHP 1997. Notes: Data for Luxembourg refer to 1997. EU15 refers to the weighted average, 'Average' refers to the unweighted country average.

Figure 8.1 Average amount of pensions in PPS, 1997



The differences across Europe in real average amounts of pensions in PPS, shown in Figure 8.1, mirror only partly those of average incomes in the entire population (see Chapter 3). As for overall incomes, the lowest average amounts of pensions are recorded in Portugal and Greece (some 4,500 PPS) and the highest in Luxembourg (15,500 PPS). The amounts of pensions are below the European average also in Spain, Ireland, and Italy. Pension receipts are above average (between 10,000 and 11,500 PPS) in France, the Netherlands, Germany and Belgium.

8.1.2. Non-pension transfers

Across Europe, the various components of social protection differ with regard to regulations and their relative importance. Four groups of countries can roughly be distinguished:

- In Denmark, Finland, Sweden and – to a lesser extent – the Netherlands, universal transfers to which all residents are eligible play an important role. Those are combined with relatively generous supplementary benefits.
- In the remaining continental European countries, the social protection schemes are characterized by the preponderance of social insurance related to earnings. These cover the vast majority of the population and are complemented by smaller schemes targeted to the low income population.
- In Ireland and the United Kingdom, insurance-based transfers are less developed but targeted (often means-tested) transfers play a much more important role than in other countries.[54]
- In the Southern European countries, the coverage of the population through both insurance-based and targeted transfers is lower than in the other European countries. Replacement transfers in case of inactivity (unemployment, sickness and invalidity) play the most important role.

Figure 8.2 shows that the structure of non-pension transfers varies greatly across the European Union. This reflects both differences in social protection systems and structural differences across countries (e.g. the low level of unemployment in Luxembourg compared to the high level in Spain). Around 30 percent of non-pension transfers are benefits related to unemployment. These benefits are most important in Ireland and Spain. Sickness and invalidity benefits form one quarter of transfers, and are particularly important in the four Southern European countries. Unemployment and sickness/invalidity benefits taken together can be seen as pure replacement transfers: in Spain, they constitute 90 percent of all non-pension transfers and in Italy, close to 80 percent. On the other hand, social assistance and housing benefits may be seen as part of the transfer

([57]) The unemployment benefit system in Ireland, however, is more similar to those on the European continent.

system most targeted to the lower income segments: 12 percent on European average, they make up 20 percent or more in France, Sweden and the United Kingdom. Finally, family related benefits – around one third of non-pension transfers on European average – are particularly important in Austria and Luxembourg (54 percent of transfers).

Among recipients, non-pension transfers have a weight of one quarter in their disposable income (Table 8.5). Southern European countries display the most divergent levels: Spain has one of the highest average shares of non-pension transfers in disposable personal income, Italy is average, whilst Portugal and Greece have the lowest shares across Europe. Depending on the country, the different components of non-pension transfers weigh more or less heavily in the income of recipients. Unemployment related benefits are relatively important in Spain, Ireland and Finland but almost negligible in Greece. Sickness and invalidity benefits are more important in Belgium, Spain and Finland but much less so in Portugal. The contribution of family benefits to the incomes of recipients is highest in Germany and the Netherlands and lowest in Sweden. Education allowances have an important weight in Denmark, the Netherlands and Sweden. Housing benefits are most important in Portugal and the United Kingdom. Finally, social assistance benefits have a higher share in recipients' incomes in Belgium, Italy, Sweden and, particularly, the Netherlands.

Figure 8.2 Composition of non-pension transfers, 1997

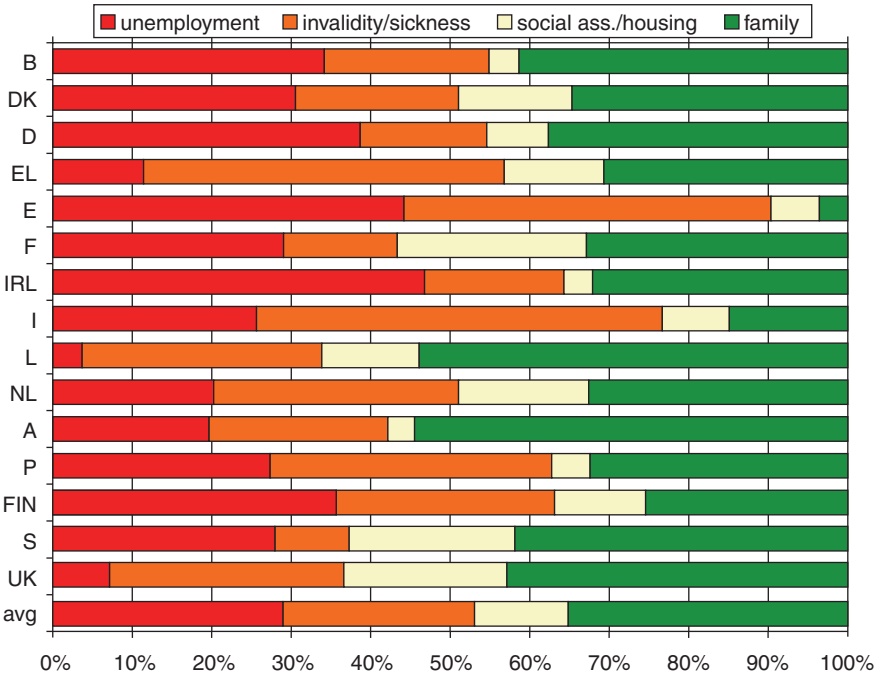


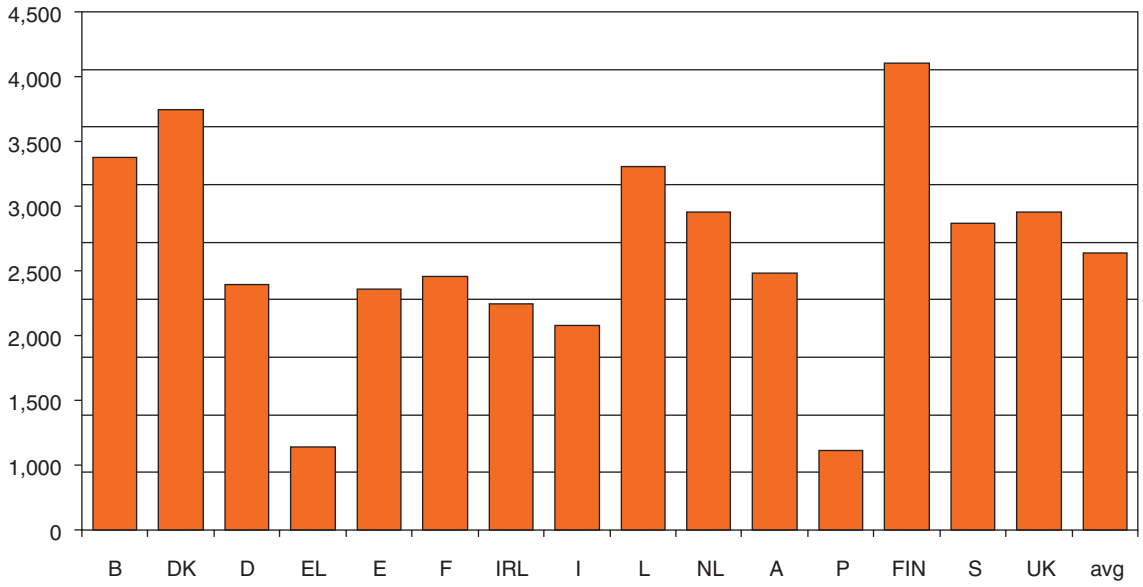
Table 8.5 Weight of non-pension transfers in disposable incomes of recipients, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Non-pension transfers	28	29	21	15	34	24	28	23	19	27	19	13	43	30	27	25	25
Unemploym. benefits	28	25	26	4	32	21	32	23	20	28	17	27	32	22	18	24	25
Sickness, invalidity	14	10	9	10	14	11	10	9	11	9	12	4	16	13	14	11	11
Family benefits	31	37	42	34	38	18	29	29	33	45	33	23	38	9	38	32	32
Education allowances	5	20	14	4	6	9	11	12	7	21	9	7	12	20	17	12	14
Housing benefits	6	9	10	7	13	11	13	11	5	9	5	22	11	11	18	11	11
Social assistance	31	22	24	9	13	22	2	28	6	56	15	11	11	29	n.a.	19	23
Other	11	16	n.a.	14	9	5	3	19	39	n.a.	4	9	4	8	24	11	16

Source: ECHP 1997. Notes: Data for Luxembourg refer to 1997. EU15 refers to the weighted average, 'Average' refers to the unweighted country average.

The average amount of non-pension transfers in Europe is just one quarter that of pensions, namely some 2,400 PPS (Figure 8.3). Portugal and Greece record the lowest amounts (approximately 700 PPS), Denmark and Finland the highest (3,700 to 4,000 PPS), followed by Belgium and Luxembourg (approximately 3,200 PPS). Above-average amounts are also recorded in the United Kingdom, the Netherlands and Sweden.

Figure 8.3 Average amount of non-pension transfers in PPS, 1997



8.2. Re-distributive effects: the question of targeting 'efficiency'

How are social transfers allocated across the income distribution and do they contribute in redistributing from richer to poorer income segments? In general, transfers (like any other income component) can be distributed in four different ways:

- 'regressively', following the usual distribution of earnings, so that richer income segments receive a larger part of transfers;
- 'proportionally' so that each income segment receives the same share of transfers;
- 'progressively' so that poorer income segments receive higher transfer shares as in case of means-tested benefits;
- 'middle-class biased': the middle income segments would receive a higher transfer share than both the bottom and the top of the distribution.

It may be hypothesized that the re-distributive effects of social transfers would be weaker in countries where social programmes mostly rely on earnings-related schemes than in countries with more universalistic features of transfer provision; and that the effects would again be stronger in countries where means-tested provisions of transfers play a more important role. In the latter case, an eventually lower overall share of transfers in the disposable incomes would be off-set by a higher targeting to those in need.

Table 8.6 suggests that all social transfers taken together are fairly proportionally distributed, with a slight bias to richer income groups: the poorest 20 percent receive some 18 percent of all transfers, the richest 20 percent receive 23 percent, the remaining 59 percent goes to the 60 percent middle incomes. This pattern is to be found across the majority of EU countries, but there are notable exceptions: in Denmark and Ireland, the poorest 20 percent receive more transfers than their share in the population (approximately 25 percent) whilst the richest 20 percent receive less (approximately 15 percent). At a first glance, those systems appear to be more 'targeted' to low incomes than in other countries. On the other hand, the Southern European countries (except Spain) display a much more 'regressive' pattern in the sense that as much as 30 percent of transfers go to the richest quintile, while just nine to 14 percent go to the lowest quintile.

Overall, these patterns did not change very much in the late 1990s. In about half the countries, shares in transfers of the top income groups declined, significantly so only in Belgium and Greece. In Denmark and, to a lesser extent, Germany, the middle incomes lost transfer shares to the benefit of both the poorest and richest income groups. A simultaneous decline in the transfer share of the poor and an increase of that of the rich – a trend towards further income concentration – can only be found in Portugal.

Table 8.6 Distribution of social transfers, 1997 and changes 1994-1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Percentage shares																	
bottom 20%	17	28	18	13	13	17	25	9	15	18	18	14	19	20	18	18	16
middle 60%	56	57	58	60	65	57	60	64	64	53	59	54	64	61	61	59	59
top 20%	26	15	24	27	22	27	15	28	21	29	23	32	18	19	21	23	24
Changes 1994 – 1997																	
bottom 20%	0	3	2	3	-1	1	0	0	1	-1	2	-2	..	..	0	1	..
middle 60%	5	-6	-4	3	1	-1	-2	1	0	1	1	-1	..	..	-2	0	..
top 20%	-4	2	1	-6	0	-1	2	-1	-1	1	-3	2	..	..	1	-1	..

Source: ECHP 1994, 1997. Notes: Reference period is 1994 to 1996 for Luxembourg and 1995 to 1997 for Austria and Germany. EU15 refers to the weighted average, 'Average' refers to the unweighted country average. Changes are in percentage points and exclude Finland and Sweden.

The above results are largely determined by the respective importance of public pension schemes which are earnings-related to a great extent. Table 8.7 therefore looks at the distribution of pensions (among the pension-aged population) and non-pensions (among the working-age population) separately. As expected, pensions are more or less biased to richer incomes across all 15 EU Member States. Their share exceeds the 20 percent population share of the richest quintile in all countries, mostly in Portugal (43 percent) and the least in Denmark (24 percent). In a number of countries, namely Denmark, Germany, Italy, Luxembourg and Sweden, pensions also appear to be somewhat biased to the middle incomes. The only country where the poorest 20 percent receive more than 14 percent of all pensions is Denmark. Pensions are therefore largely regressively distributed, following in that the unequal distribution of (past) earnings.

Table 8.7 Distribution of pensions and non-pension transfers, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Pensions (pension-age population)																	
bottom 20%	9	17	10	7	11	9	14	10	12	11	11	9	13	13	12	11	10
middle 60%	52	59	59	57	60	56	56	60	61	54	54	48	57	61	57	57	58
top 20%	38	24	31	36	28	35	30	30	28	34	35	43	31	26	31	32	32
Non-pension transfers (working-age population)																	
bottom 20%	28	31	34	30	23	30	39	20	29	30	24	17	25	31	27	28	29
middle 60%	54	54	55	60	63	55	56	56	59	54	61	66	64	59	59	58	57
top 20%	18	15	11	9	14	15	5	23	12	16	14	17	12	10	14	14	14

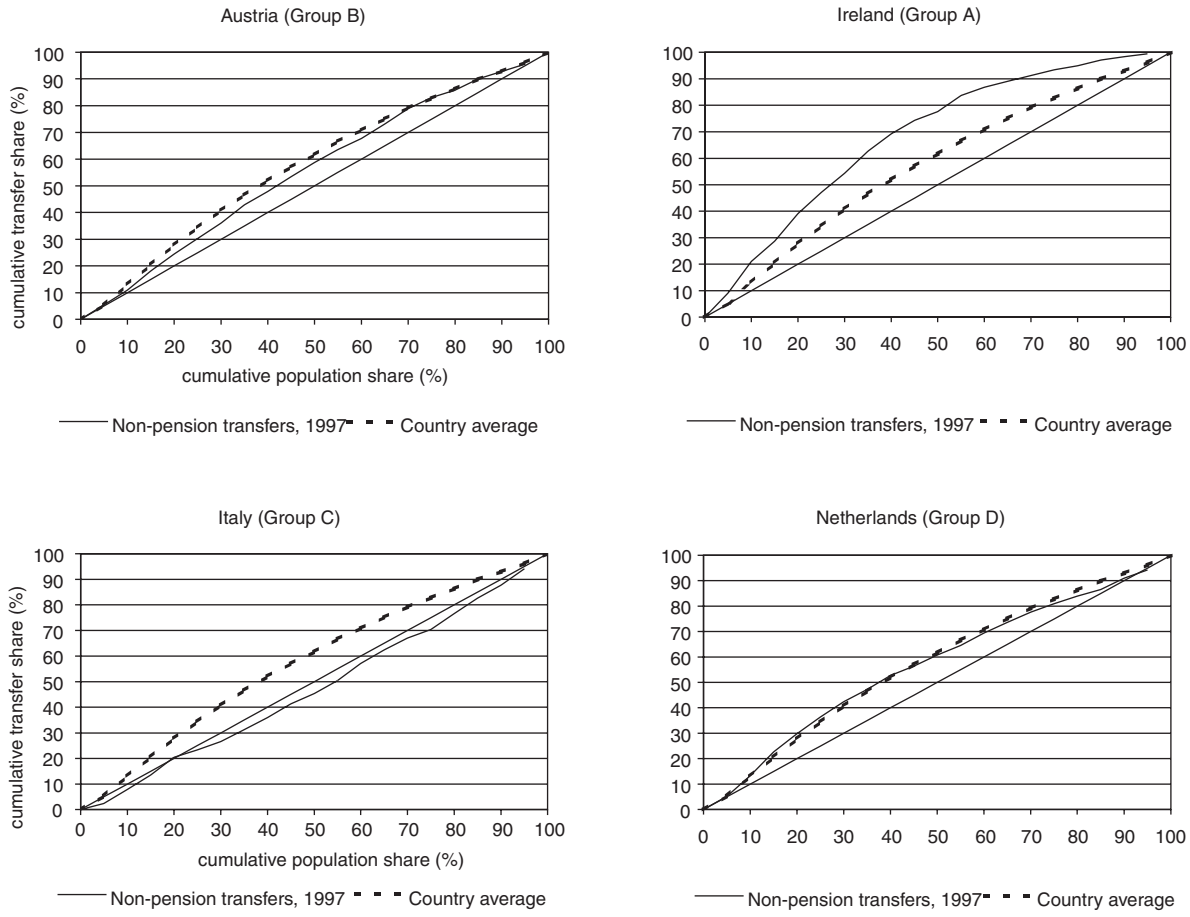
Source: ECHP 1994, 1997. Notes: Data for Luxembourg refer to 1996. EU15 refers to the weighted average, 'Average' refers to the unweighted country average.

On the contrary, non-pension transfers appear to be, by and large, progressively distributed, i.e. targeted to lower incomes. On EU average, 29 percent of all non-pension transfers go to the poorest quintile, 57 percent to the middle incomes, and 14 percent to the top quintile. In other words, they have a re-distributive impact on the otherwise very unequal distribution of earnings and other sources of income. Those patterns can best be described with concentration curves for non-pension transfers which are shown in Figure 8.4 below, for four 'typical' countries representing the groups below. The charts plot shares of non-pension transfers against population shares (ranked by disposable income). On this basis, four groups of countries can be distinguished:

- Denmark, Finland and Ireland: these three countries show the most targeted features of non-pension transfers, greatly exceeding the EU average;
- Austria and Spain display almost 'proportional' patterns of non-pension transfers, suggesting an even contribution. This is partly to be explained by the importance of family benefits in the former country and of sickness benefits in the latter.

- In Portugal and Italy non-pension transfers are slightly biased to richer income groups.
- The remaining eight countries follow very closely the above described slightly targeted EU average.

Figure 8.4 Concentration curves of non-pension transfers for four typical EU countries, 1997



Not all non-pension transfers have the same re-distributive effects, however. One might expect that family or sickness benefits will be much more evenly distributed than, say, social assistance benefits. Table 8.8 shows the distribution of the different components that make up non-pension transfers for the EU as a whole. We can observe that both unemployment and family benefits are distributed similarly to non-pension transfers in general, i.e. they are slightly targeted to lower income segments. Education allowances likewise show a bottom-targeted feature, which is even stronger than that of either unemployment or family benefits. Sickness and invalidity benefits are not targeted to lower incomes but are rather spread evenly across the income distribution of the working-age population, with a bias to middle-income groups. Finally, housing allowances and social assistance benefits have, as expected, the strongest targeting features: some two thirds of social assistance go to the poorest 20 percent of the working-age population.

Table 8.8 Distribution of components of non-pension transfers among the working-age population, EU average,1997

	unemployment	sickness, invalidity	family	education	housing	social assistance	other
bottom 20%	29	17	30	46	52	67	38
middle 60%	56	66	57	49	45	29	51
top 20%	15	17	13	6	3	4	11

Source: ECHP 1994, 1997. Notes: Data for Luxembourg refer to 1996. Figures shown refer to the weighted EU average.

Just because one or the other transfer is not strongly targeted does not mean that it plays no role in re-distributing income. First, the initial (market) income distribution is highly unequal in all European countries and a proportional or even a slightly 'regressive' (targeted to richer groups) transfer added to earnings will result in a re-distribution of disposable income to lower income groups. Second, there are situations where a transfer is highly targeted to the poorest income segments but its contribution to redistribution and poverty alleviation is marginal, simply because its level is very low.

When assessing the efficiency of social transfers, it is therefore important to also look at the shares of transfers which reach those persons among the working-age population who were at risk of poverty, i.e. below 60 percent of median income before receipt of any non-pension transfers. It can be seen that the majority of non-pension transfers, namely 56 percent, goes to persons of working-age in households who were pre-transfer at-risk-of poverty. The percentage is much higher, approximately 70 percent, in Ireland and Finland, but lower, below 50 percent in Italy and Austria. Among the different components of non-pension transfers, social assistance and education allowances, but also unemployment benefits appear to reach persons who are pre-transfer at-risk-of poverty to a higher degree than, in particular, family benefits. It should, however, be noted that a high share of a particular transfer (e.g. unemployment) going to those at-risk-of poverty in a country can also stem from the fact that particular groups at risk (e.g. unemployed) have a higher poverty risk and share in this country.

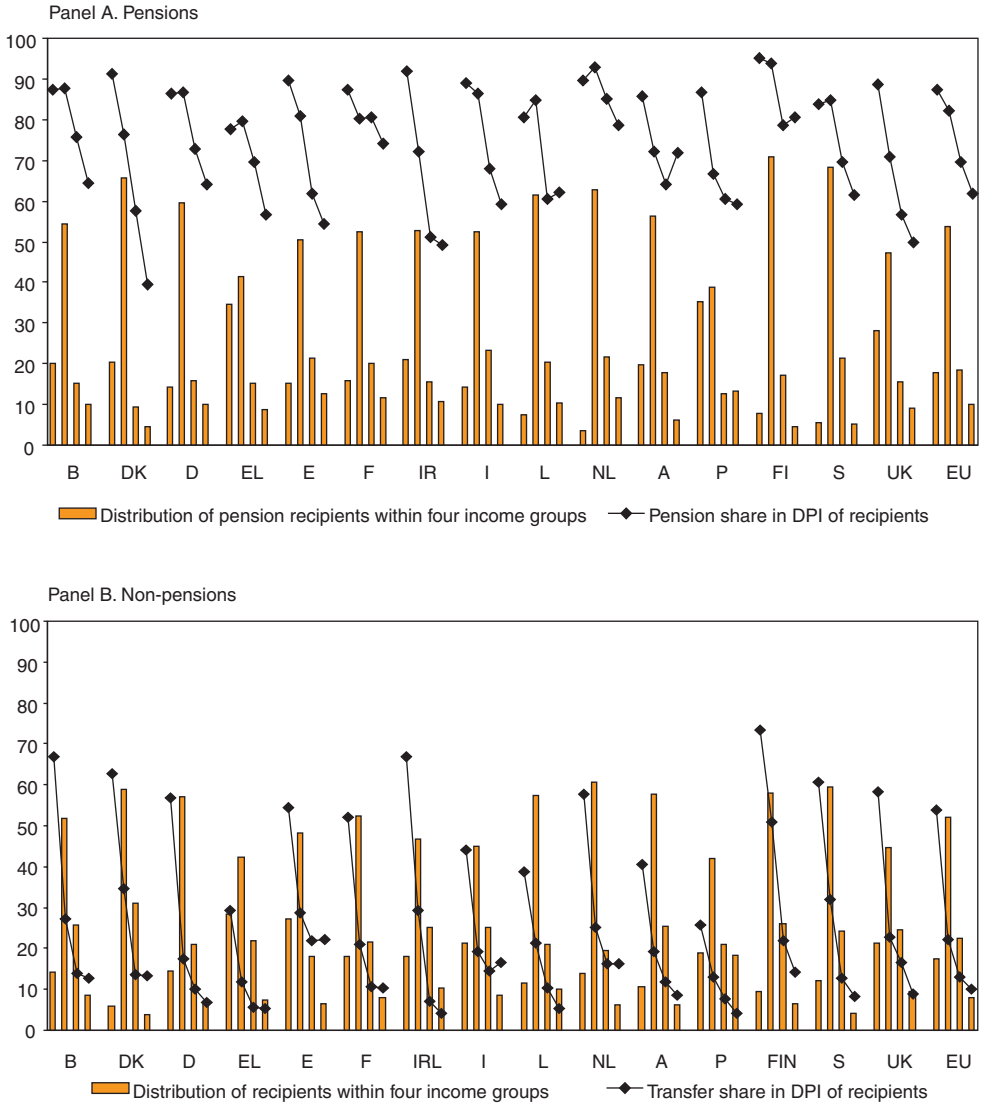
Table 8.9 Share of non-pension transfers going to persons below 60% of median income before receipt of transfers, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Non-pension transfers	53	62	49	47	57	54	67	42	53	63	43	48	69	59	64	55	56
Unemploym. benefits	62	44	53	32	51	47	69	34	41	46	46	44	62	53	59	50	51
Sickness, invalidity	53	72	61	64	58	42	58	52	74	72	55	51	71	21	59	42	58
Family benefits	28	18	26	35	38	39	51	17	28	27	25	29	35	27	46	31	33
Education allowances	72	57	43	42	35	50	32	45	10	65	29	14	50	57	55	44	53
Housing benefits	40	26	82	27	59	53	52	14	16	25	22	44	48	46	51	40	53
Social assistance	72	33	83	56	59	70	43	64	36	94	30	12	56	83	..	56	75
Other	16	42	..	26	40	23	41	40	91	..	30	34	5,1	35	59	37	52

Source: ECHP 1997. Notes: Data for Luxembourg refer to 1996. EU15 refers to the weighted average, 'Average' refers to the unweighted country average.

Figure 8.5 summarizes distributive and targeting features for pensions and non-pension transfers with regard to the distribution of recipients as well as the share of transfers across the four income groups: 'low', 'middle', 'higher' and 'extreme' income. In most countries, the share of both pensions and non-pensions in the personal disposable income decreases with increasing living standard. With regard to non-pension transfers, the targeted features in Ireland and Finland can clearly be distinguished from the less targeted features in Spain and Italy.

Figure 8.5 Pensions and non-pension transfers across four income groups, 1997



Source: ECHP, 1997. Note: Figures for Luxembourg refer to 1996. Four bars per country refer to "Low income"(below 60% of median); "middle income" (between 60 and 120% of median); "higher income" (between 120 and 180% of median); "extreme income" (> 180% of median)

8.3. Alleviation of poverty risk through social transfers

This section investigates the contributions of social transfers and their components to reducing income poverty risk. Table 8.10 compares at-risk-of poverty rates and at-risk-of poverty gaps before and after receipt of transfers for the entire population, the pension-age and the working-age population. Two caveats have to be made at the outset. First, the analysis below compares the final disposable income situation with a hypothetical situation in the absence of transfers. This method ignores probable behavioural effects as well as policy effects on the pre-transfer distribution.[58] Second, the analysis does not take into account the impact of taxes (income taxes and social security contributions) which might play a higher re-distributive and poverty alleviating role in some countries than in others.[59] Therefore, the results below provide only a first indication of the strength of transfers for the reduction of poverty risk.

([58]) For instance, one may assume that relatively high family transfers may induce people to leave the labour force, thereby actually increasing their poverty risks.

([59]) For instance, the analysis ignores the effect of tax allowances and other tax regulations related to family status. Those systems tend to favour higher income groups in countries like France, Germany and Luxembourg, while they tend to favour lower income groups in Southern European countries, Austria and Belgium.

On EU average, social transfers more than halve the at-risk-of poverty rate and approximately halve the at-risk-of poverty gap among the entire population. This is true for all 15 Member countries. This is, however, due to a large degree to the importance of public pension schemes. As a matter of fact, in the absence of pensions both at-risk-of poverty rates and at-risk-of poverty gaps would approach 100 percent among the pension-age population in some countries, as public pensions constitute their single most important income component. Apart from minimum pensions, the largest part can be seen as earnings replacement, and the following considerations therefore retain to the impact of non-pension transfers on the working-age population.

Table 8.10 At-risk-of at-risk-of poverty indicators before and after receipt of social transfers

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-15
Indicators for all social transfers (entire population)																	
at-risk-of poverty rate before	46	38	39	38	43	43	41	42	42	38	40	39	52	45	44	42	42
at-risk-of poverty rate after	15	8	15	23	20	16	20	19	12	11	13	24	8	9	22	15	17
at-risk-of poverty gap before	74	72	68	64	66	64	66	70	57	71	60	62	86	67	72	68	68
at-risk-of poverty gap after	31	21	28	35	36	26	19	38	22	28	26	30	21	28	33	28	31
Indicators for pensions (pension-age population)																	
at-risk-of poverty rate before	86	78	81	80	69	87	66	78	76	85	76	72	77	86	77	78	79
at-risk-of poverty rate after	21	19	14	35	16	17	21	15	9	5	20	35	8	6	28	18	18
at-risk-of poverty gap before	85	78	85	80	81	79	77	83	80	87	80	81	109	78	75	83	82
at-risk-of poverty gap after	25	13	33	36	21	27	15	27	22	29	24	28	11	14	24	23	27
Indicators for non-pension transfers (working-age population)																	
at-risk-of poverty rate before	25	23	20	20	27	25	29	20	23	23	20	23	39	28	25	25	23
at-risk-of poverty rate after	12	6	12	19	18	14	15	18	10	11	10	17	9	10	15	13	14
at-risk-of poverty gap before	58	60	48	39	48	45	56	43	35	58	38	41	68	53	60	50	50
at-risk-of poverty gap after	33	29	29	35	38	27	19	40	23	30	28	32	23	32	38	30	34

Source: ECHP 1997. Notes: Data for Luxembourg refer to 1996. EU15 refers to the weighted average, 'Average' refers to the unweighted country average. at-risk-of poverty rate: percentage of persons below 60% of median disposable income. at-risk-of poverty gap: average distance of the poor from the at-risk-of poverty line as a percentage of that line.

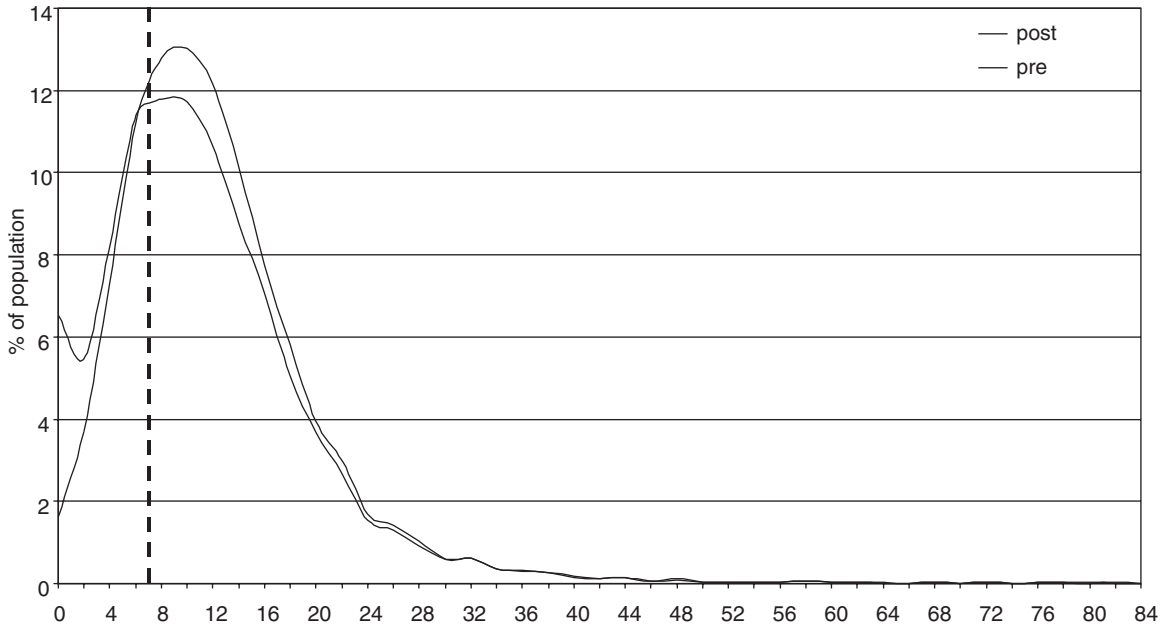
Table 8.10 shows that non-pension transfers almost halve the number of those at risk of poverty and reduce the distance to the at-risk-of poverty line (the intensity) by approximately 40 percent among the working-age population. Depending on the relative importance of universal or means-tested benefits, it is possible to distinguish four groups of countries:

- In seven countries, the combined action of the various non-pension transfers reduce both numbers and intensity of poverty risk to a fairly high degree: this is the case in Belgium, Germany, Spain[60], France, the Netherlands, Finland and the United Kingdom.
- In a second group of countries, namely, Denmark, Sweden, Luxembourg and Austria, non-pension transfers reduce primarily the number of persons at risk of poverty, but close the at-risk-of poverty gap to a much lesser degree.
- Non-pension transfers have a higher impact on the at-risk-of poverty gap than on the at-risk-of poverty rate only in Ireland.
- In the remaining three countries – Greece, Italy and Portugal – non-pension transfers have only a limited impact on poverty risk. Reduction rates are between just six and 24 percent.

The combined overall impact of non-pension transfers in the EU as a whole can be read from Figure 8.6 which shows the entire distributions before and after transfers as well as the EU-average at-risk-of poverty line for the working-age population. It can be seen that non-pension transfers influence most effectively the lowest and the middle range of the distribution, reducing the numbers of persons living in poverty risk and closing the at-risk-of poverty gap.

([60]) Spain would, in fact, be situated between this and the fourth country grouping.

Figure 8.6 Income distribution in EU15 before and after non-pension transfers, working-age population 1997



In the following, the impact of two of the most important transfer types among non-pension transfers on poverty risk among the concerned populations are considered in detail: (a) the effect of family allowances on child poverty risk; and (b) the effect of unemployment benefits on poverty risk among the unemployed.

Figures 8.7 and 8.8 show at-risk-of poverty rates before receipt of transfers on the x-axis and at-risk-of poverty rates after transfers on the y-axis. The impact of transfers on poverty risk can be read as the vertical distance from the 45°-line. This line designs a situation of 'no change'. The dotted lines refer to poverty risk reduction rates of 25, 50 and 75 percent respectively.

Figure 8.7 Impact of family allowances on child poverty risk

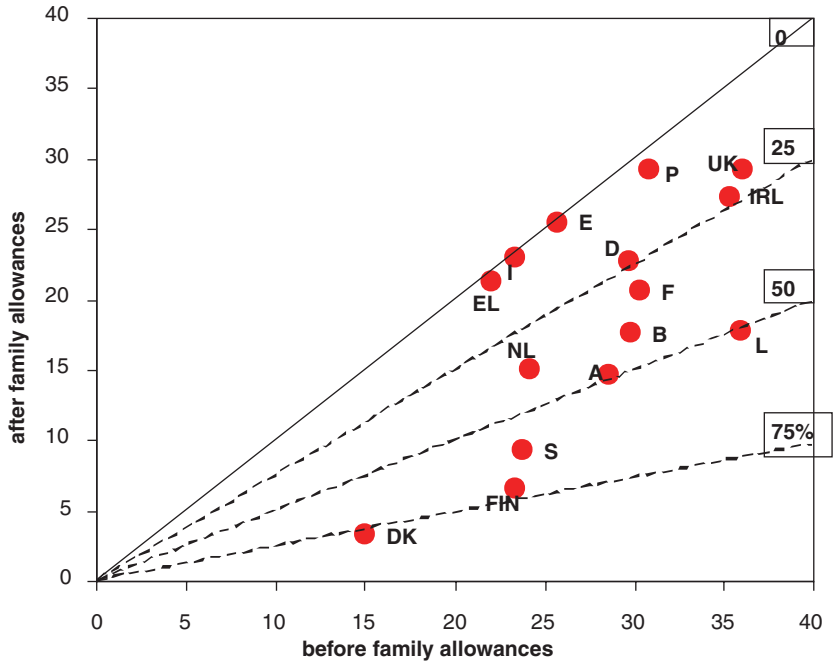
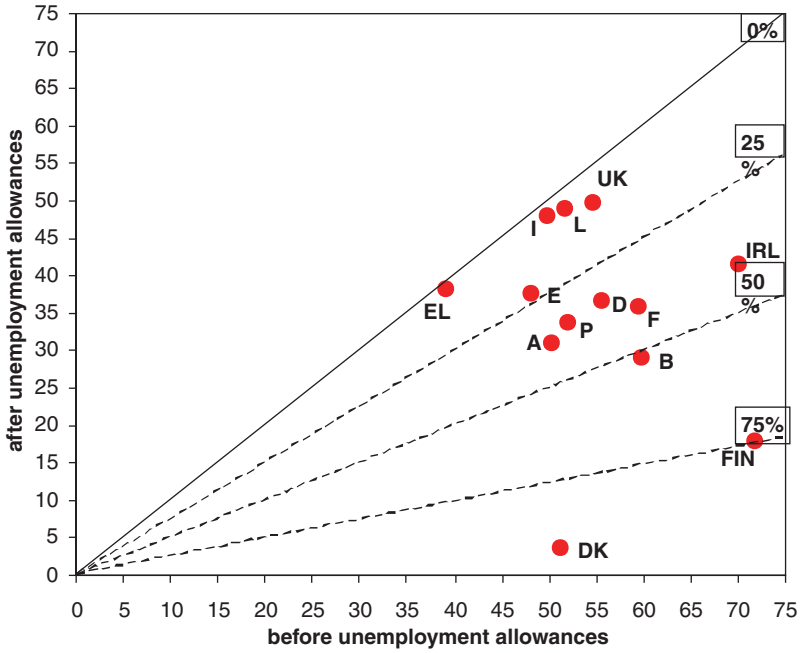


Figure 8.8 Impact of unemployment allowances on poverty risk among unemployed



Child poverty risk *before* receipt of family allowances is highest in the United Kingdom, Ireland, France and Luxembourg (around 35 percent). It is lowest (below 25 percent) in the three Nordic countries but also in the Netherlands, Italy and Spain. The rank ordering of countries differs significantly *after* taking into account family allowances: for instance, child poverty risk in Italy and Spain is now above the average whereas in Luxembourg it is below the average. With regard to the reduction of child poverty risk more specifically, there are again four groups of countries:

- The reduction rates are highest in Denmark and Finland, at around 75 percent;
- Child poverty risk is halved or almost halved through family allowances in Sweden, Austria and the Benelux countries;
- Lower reduction rates (around 25 percent) are recorded in the United Kingdom, Ireland, Germany and France;
- In the four Southern European countries, family allowances do not significantly alter the level of child poverty risk, reduction rates are close to zero.

At-risk-of poverty rates for the unemployed are higher than for children, both before and after the receipt of benefits related to unemployment. Again, Denmark and Finland stand out as having by far the highest reduction rates, while in two of the Southern European countries (Greece and Italy) the reduction of the poverty risk is only marginal. Portugal and Spain have somewhat higher at-risk-of poverty reduction rates due to unemployment benefits, between 25 and 35 percent. In the United Kingdom and in Luxembourg, unemployment benefits also play a minor role, reducing poverty risk among the unemployed to a very small extent. All other countries are close to the European average, with reduction rates around 30 percent.

A final question refers to the effect of social transfers on long-term poverty risk. Table 8.11 shows the shares of the entire population by years spent in poverty risk, as well as the average duration of the latter for pre- and post-transfer incomes. It includes the effects of all social transfers, i.e. pensions and transfers other than pensions.

Table 8.11 The effect of social transfers on long-term poverty risk

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average	EU-13
Shares of individuals by number of years spent in poverty risk, ***before*** **social transfers**																	
0 years	41	43	54	46	41	46	46	44	51	52	48	46			46	47	47
1 year	10	15	10	13	12	9	8	13	8	9	14	12			10	11	11
2 year	6	7	6	9	9	6	8	9	7	5	10	9			8	8	7
3 years	7	6	7	10	13	7	9	9	34	7	28	8			7	12	9
4 years	35	28	24	22	25	32	29	25	..	27	..	24			29	27	26
average duration	2,2	1,7	2,1	2,3	2,2	2,3	2,3	2,2	..	2,0	..	2,5			2,2	2,2	2,2
Shares of individuals by number of years spent in poverty risk, ***after*** **social transfers**																	
0 years	67	80	76	62	62	72	68	66	78	79	78	62			66	70	70
1 year	13	11	11	13	14	10	11	13	11	10	11	13			12	12	12
2 year	7	4	5	8	10	5	7	8	6	4	6	6			8	7	7
3 years	6	3	5	9	8	5	7	6	4	4	5	7			7	6	6
4 years	7	2	4	7	6	7	7	6	..	3	..	12			6	6	6
average duration	3,1	2,8	3,0	2,8	2,9	3,1	3,1	2,8	..	3,1	..	2,8			3,0	3,0	3,0

Source: ECHP 1994 - 1997. Notes: No data available for Finland and Sweden, Austria (1994) and Luxembouyrg (1997). EU13 refers to the weighted average, 'Average' refers to the unweighted country average. Changes are in percentage points and exclude Finland and Sweden

In the absence of social transfers, the percentage of persons experiencing poverty risk at a particular time would increase by about 20 percentage points, from currently 30 to 50 percent on EU average. The effect would be mostly felt by persons experiencing long stays in a state of poverty risk (three or four years): instead of now 13 percent there would be over one third being at risk of poverty for three or more years. Social transfers can thus be said to reduce the average length of poverty risk in Europe from 3 to 2.2 years. It appears that the reduction of long-term poverty risk is particularly strong in Denmark, Luxembourg, the Netherlands and Austria, but weaker in Greece and Portugal.

8.4. Conclusions

The main findings from the analysis are as follows:

Transfers are an important source of disposable income for Europeans, in particular for those with lower incomes. Pension and non-pension transfer shares are higher in the North and lower in the Southern European countries. These shares appear, however, similarly important across Europe when looking only at those who are receiving them.

Among non-pension transfers, unemployment benefits are most important in Spain and Ireland; sickness and invalidity benefits in the Southern European countries; social assistance and housing benefits in France, Sweden and the United Kingdom; and family related benefits in Austria and Luxembourg.

Public social transfers do redistribute income. But they primarily redistribute from younger to older age groups, from persons who work to persons who do not work, or from single adults to families with children. Redistribution from rich to poor is just one, and often not the most important, objective of European transfer systems. Nevertheless, non-pension transfers in particular appear to be distributed towards the bottom of the income distribution, especially so in Denmark, Finland and Ireland but less so in Italy and Portugal.

Among non-pension transfers, social assistance and housing benefits have the strongest targeting features but also unemployment, family and education related allowances are slightly targeted towards low incomes. On the other hand, sickness and invalidity benefits are spread evenly across the income distribution.

Social transfers also contribute to the alleviation of poverty risk by reducing numbers of persons at-risk-of poverty by more than half and the intensity of poverty risk by half. This is also the case for non-pension transfers among the working-age population (reductions of 50 and 40 percent, respectively). In that, Denmark, Sweden, Luxembourg and Austria focus on the reduction of the numbers of persons at risk of poverty while the cutback of the intensity of poverty risk is more important in Ireland.

In general and for specific groups at risk (children, unemployed), it appears that the reduction of poverty risk is very high in Denmark and Finland but rather marginal in the Southern European countries.

Social transfers decrease largely the number of those living in long-term poverty risk and reduce the average stay in this state from 3 to 2.2 years.

9. Country Profiles

This chapter provides executive summaries of the main results and trends in income poverty and social exclusion, considering each of the EU Member countries in turn. It identifies to what extent patterns in each Member country deviate from the general findings summarised in Chapter 1.

9.1. Belgium

In Belgium, the median income level is above European average (third highest after Luxembourg and Denmark) and has increased by over six percent between 1994 and 1997. Despite this favourable situation, the level of income inequality is higher than average and the income at-risk-of poverty rate around average (15 percent). Relative incomes of those below the at-risk-of poverty threshold fell slightly, by almost two percentage points. In terms of levels of relative incomes, those near retirement (55-64) are significantly better off in Belgium than elsewhere. Together with Austria and the UK, Belgium displays the highest gender at-risk-of poverty differential: the at-risk-of poverty rate of women is 22 percent higher than that of men. An increase in work intensity within a household offers higher protection from poverty risk than in all other EU countries: while the at-risk-of poverty rate for persons in households with marginal work intensity is around 40 percent, it decreases to below 10 percent for those in households with moderate or part work intensity and is less than three percent for high to full work intensity.

Almost every third Belgian experienced poverty risk at least once during the period of 1994-1997, which corresponds to the average of EU countries. At the same time, 13 percent of Belgian citizens lived in households burdened by poverty risk for at least three years during the analysed time period. Belgium is one of the few EU countries (after Germany and the Netherlands) where the odds of facing a persistent risk of poverty is the lowest in Europe for lower-educated people compared to those with medium and high education levels.

Overall, non-monetary deprivation is below EU average in Belgium and decreased since 1994, reaching 13 percent in 1997. Almost 16 percent of Belgians have problems with providing for their basic needs and 23 percent report environmental problems in their neighbourhood. Single person households face significantly higher deprivation risk, especially men under 30 years of age: the deprivation rate for this group is more than double compared to the entire population. After the Netherlands, Denmark and Germany, Belgium displays the fourth highest relative deprivation rate for households with single parents. Any-time and persistent deprivation rates are below the average of EU countries.

On average, every fourth Belgian citizen was either at-risk-of income poverty or deprived in terms of non-monetary items over the four-years period of 1994-1997 and this figure increases to 39 percent when looking at those who experienced poverty risk or deprivation at least for one year. The incidence of income poverty risk *and* non-monetary deprivation was six percent on average, and five percent of the population was at risk of persistent poverty and deprived at the same time. The reported health situation of people in a state of at-risk-of poverty is better than on EU average: rather than 30 percent, only 21 percent reported chronic health problems. Among those at-risk-of poverty the share of those dissatisfied with financial and housing situation is also lower in Belgium.

Almost 90 percent of Belgians live in households, which receive some kind of social transfer, and the share of transfers in disposable income is 42 percent for the entire population and 78 percent for the low-income population – those are among the highest values across Europe. Belgium also recorded the highest increase of this transfer share between 1994 and 1997 (+ 5 percent) and is, together with Greece, the only country which combines such an increase with a decrease in the percentage of transfer recipients, a sign for the growing importance of transfers for the incomes of recipients. Taken together, social transfers were distributed rather evenly across the income distribution in Belgium; between 1994 and 1997 the share of transfers going to the richest income groups decreased to the benefit of middle income groups. As on EU average, half of the transfers are made up by pensions and those constitute 84 percent of the income of pensioners, the second-highest value after Finland. Among non-pension transfers, family and unemployment benefits are the two most important components (41 and 34 percent of all non-pension transfers respectively). Although social assistance is of marginal importance (four percent, the lowest value together with Austria), this benefit accounts for one third of the incomes of recipients, the second-highest value after the Netherlands. Non-pension transfers are slightly targeted to lower income groups in Belgium. In particular, the share of unemployment and of education

allowances going to the poor (approximately 60 and 70 percent, respectively) is higher than on EU average. Non-pension transfers reduce both the number of those at-risk-of poverty and the intensity of poverty risk to a fairly high degree in Belgium. This impact is larger than in most other countries (Denmark and Finland excepted) among the unemployed through unemployment benefits.

9.2. Denmark

Denmark combines the second highest median income level with the lowest indicators for income inequality and poverty risk (eight percent at-risk-of poverty rate). Between 1994 and 1997, household incomes grew faster than on EU average and this growth slightly favoured higher income groups. Similar to the two other Nordic countries, higher education is not associated with significantly higher relative income levels. Nevertheless, poverty risk among low-educated people is almost twice the level found for the total population, which is above EU average. Other population groups with high and above EU-average poverty risk in Denmark include the elderly (aged 65 and over) and farmers and smallholders. Furthermore, single women households have very high at-risk-of poverty rates, especially young women (more than one out of two fall below the at-risk-of poverty line). On the other hand, poverty risk among households with children (including many children) is exceptionally low in Denmark.

Similarly to the cross-sectional at-risk-of poverty rates, the share of Danish people being at risk of poverty at any time between 1994-97 is the lowest in Europe (19 percent) and only 5 percent of the population was persistently at risk of poverty. Compared to other countries, the re-entry rates are relatively low in Denmark: 19 percent of previously at risk of poverty fall back under the threshold in the subsequent year after exiting this state of poverty risk. Lower educated people face a risk of becoming poor at any time which is 1.4 times higher than those with medium or higher educational level, albeit the lowest in the EU; on the other hand, the relative risk of persistent poverty for the same sub-population is higher than in Germany, the Benelux countries and the UK.

Non-monetary deprivation shows similar patterns to income poverty risk in Denmark: with eight percent, the overall deprivation rate is only half the EU average and this represents an improvement of 29 percent in comparison to 1994. The biggest improvement occurred in the basic and secondary dimensions – by 38 and 43 percent respectively. Like in Belgium, Germany and the Netherlands, single persons and single-parent households face relatively higher deprivation risks compared to the total population. Looking at non-monetary deprivation over time reveals the same picture: the share of long-term deprived persons in Denmark is among the lowest (seven percent) in the EU.

Corresponding to the lowest income at-risk-of poverty and material deprivation rates in the EU, it comes to no surprise that the combination of the two shows also the lowest levels in Denmark: only one in hundred persons was persistently at risk of poverty *and* deprived at the same time. This figure increases to 12 percent when looking at those who were either in a state of poverty risk or deprived for at least three years, while every third Dane experienced poverty risk and/or non-monetary deprivation at least for one year. Persons facing income poverty risk are deprived to a lesser extent than EU-average in all deprivation items, although subjective measures show a slightly different picture: instead of the EU average of 30 percent, in Denmark 42 percent of those at risk of poverty reported chronic health problems, which is the second highest value after the United Kingdom.

Although the share of social transfers in disposable income is around EU average in Denmark (36 percent), the share of transfer recipients is higher than in most countries (85 percent). In addition, all transfers taken together seem to be more targeted to lower income groups than in any other EU country, Ireland excepted. Between 1994 and 1997, the lowest but also the highest income groups gained shares in transfers at the expense of middle income groups. 40 percent of all transfers are made up by pensions and just 20 percent of the population receive pensions, considerably lower percentages than on EU average. Nevertheless, public pension shares in disposable income are higher for low-income groups and lower for high and very high income groups than in any other EU country, indicating a higher importance of capital income (private pensions) in the budget of well-off pensioners in Denmark. Non-pension benefits are somewhat more important for the income of recipients than on EU average, in particular education allowances. Sickness and invalidity benefits are more targeted to those at risk of poverty than in other EU countries; this is less the case for family benefits and social assistance. Overall, non-pension benefits have higher targeting features in Denmark (together with Finland and Ireland) than in other countries. As a consequence, non-pension transfers decrease poverty risk to a greater extent than

in other EU countries, focusing primarily on the reduction of the number of those at risk of poverty. Reductions of at-risk-of poverty rates among children (via family benefits) and unemployed (via unemployment benefits), for instance, are over 75 percent – the highest values recorded across EU. All social transfers taken together reduce long-term poverty risk in Denmark to a much greater extent than in other EU countries, from 34 to five percent.

9.3. Germany

The median income in Germany is above EU average and has increased between 1994 and 1997 in line with the total EU region, by nine percent. The share of persons in the middle income groups increased at the expense of those in both lower and higher income groups. Overall income inequality and poverty risk (rate of 15 percent) is slightly lower than on EU average. The elderly (aged 65 and over) enjoy almost the same average income level to the total population which is among the highest ratios across EU. Single elderly women are somewhat less fortunate. At the same time, income levels of families with two or more children only reach 67 to 87 percent of that of the entire population, which is lower than in other EU countries. Germany is the only EU country in which the income level of managers and proprietors is lower than for the entire population, but the income level of self-employed with employees is more than twice as high. Across household types, at risk-of poverty rates in Germany are highest – and above EU average – for single parents and families with three or more children (around 50 percent).

In Germany any-time and persistent at-risk-of poverty rates (24 and nine percent respectively) are somewhat lower than on EU average (28 and 12 percent). Exit- and re-entry rates show that poverty risk in Germany is rather a short-term phenomenon: one of the highest after-one-year exit rate is combined with a moderate re-entry rate.

Overall non-monetary deprivation in Germany decreased by 18 percent between 1994 and 1996 and is around 70 percent of EU average. In 1996 13 percent of German citizens had problems with providing for their basic needs. On the other hand the share of those lacking housing facilities like hot running water or separate bath is only half that of 1994. Relative overall non-monetary deprivation risk of young males and long-term unemployed people is among the highest in the EU (1.6 and 2.3 times higher, respectively).

Deprivation statistics for the population of those at risk of poverty in Germany are in general lower than on EU average, with the exception of noise pollution: 38 percent of those facing poverty risk reported noise-problems around their dwelling. The general reported health situation as well as chronic health problems of Germans facing poverty risk is around the EU average (13 and 32 percent respectively).

The share of social transfers and of transfer recipients in Germany slightly increased between 1994 and 1997 and is around EU average. Transfers are spread rather evenly across the income distribution. Between 1994 and 1997, the lowest but also the highest income groups slightly gained shares in transfers at the expense of middle income groups. Over 60 percent of all transfers are made up by pensions, a percentage which is above EU average. Public pensions account for 56 to 83 percent of the income of pensioners, also those in richer income groups. Among non-pension transfers, unemployment-related benefits are more important in Germany than on EU average, amounting to some 40 percent. Sickness and invalidity benefits are with a 16 percent share less important than in most countries. Non-pension transfers are slightly targeted to lower income groups. In particular, the share of housing benefits going to those facing poverty risk (over 80 percent) is higher than in any other EU country and the share of social assistance going to the same group is very high as well. The extent of the impact of non-pension transfers on the reduction of poverty risk is around EU average, and slightly below average in the case of child poverty risk reduction.

9.4. Greece

Although the median income increased faster as on EU average, its level is the second lowest (after Portugal) across the EU. The income growth was spread equally across the income distribution. Together with the two Iberian countries, Greece displays the highest level of income inequality. Also, the overall at-risk-of poverty rate (23 percent) is among the highest ones. The youngest citizens in Greece (below 18) have the same income level than the entire population – the highest ratio across EU, whilst the older generation (aged 65 and over) has European-wide the lowest ratio: 76 percent. The highest relative income level – double that of the

population – is achieved by single adult men, again the highest ratio across EU. This contrasts with a ratio as low as 68 percent for single elderly women. Single parents have the same level of income and also the same at-risk-of poverty rate like the entire population – an exceptional feature. Education and social class are important criteria in Greece for both relative income levels and at-risk-of poverty levels. Having low rather than high education increases the at-risk-of poverty rate from five to 33 percent. The risk of poverty among farmers is 52 percent but among managers and white collar employees it is below four percent.

Together with Portugal, Greece has the highest any-time at-risk-of poverty rate across the EU, corresponding to the very high cross-sectional at-risk-of poverty rates. Similarly, only Portugal has higher persistent at-risk-of poverty rates than Greece. Although 40 percent of the population facing poverty risk in 1994 were rid of this problem in 1995, half of them re-entered this state within the next two years (28 percent after one year and 23 percent in the second year). The risk of persistent poverty is extremely unequal according to educational attainment: people with lower educational level face a risk of being poor for at least three years which is six times higher than others.

After Portugal, Greece displays the highest overall non-monetary deprivation rate in the EU. Although on the decrease since 1994, in 1997 almost every third Greek was deprived in terms of non-monetary dimensions. Compared to the EU average of 23 percent, the share of the population having problems with providing for their basic needs is significantly higher (60 percent) in Greece. Unlike in most other countries, deprivation is a problem more or less of all social groups. Not surprisingly, the share of people being deprived at least once over the four-years period is very high (41 percent), and so is the persistent deprivation rate (24 percent).

More than one third of the Greek population experienced either income or non-monetary deprivation for at least three years during the examined period, which is the second highest value after Portugal, while more than half of the population was affected by poverty risk or deprivation between 1994 and 1997. If we look at 'manifest deprivation' (income poverty risk *and* deprivation at the same time) the figures take the same place in the European ranking: the rates of 21 and nine percent for any-time and persistent manifest deprivation respectively are the second highest. Although in most of the non-monetary deprivation items the share of people facing poverty risk is very high, this does not hold for all dimensions. The percentage of those in a state of poverty risk and unable to replace worn out furniture is 96 percent which is the highest value in the EU. Similarly, 51 percent of Greeks facing poverty risk are unable to afford eating meat every second day, which is almost four times higher than the EU-average. On the other hand, proportionally less people among those facing poverty risk reported problems with regard to their dwelling and the extent of chronic health problems is also comparatively less.

In Greece, the percentage of recipients of social transfers as well as the share of transfers in incomes are lower than in any other EU country (49 and 25 percent respectively). Those low values are entirely due to non-pension transfers, while the importance of pensions is higher than in most EU countries. While the number of transfer recipients declined between 1994 and 1997, the transfer share in incomes slightly increased. Despite the low percentage of recipients, the weight of transfers in the incomes of recipients is above the European average, indicating that a lower percentage of transfer recipients rely to a greater extent on social transfers than in the other European countries – a situation similar to that in Spain and Italy. Transfers in Greece are slightly biased to richer income groups, although the share of transfers going to the richest considerably declined between 1994 and 1997 to the benefit of both lower and middle income groups. Pensions make up almost 90 percent of all social transfers – the highest value across EU. They are more biased to middle and higher incomes than in most other countries. As in the other three Southern European countries, sickness and invalidity payments are the most important component of non-pension transfers (almost 50 percent). All other transfers are of marginal importance in Greece; for instance, unemployment and education allowances each constitute less than five percent of the incomes of recipients – the lowest values across EU. As a consequence, Greece, together with Italy, displays the lowest reduction of poverty risk due to non-pension transfers (- 5 percent). Reduction in case of long-term poverty risk is somewhat higher but still significantly below EU average.

9.5. Spain

Across EU, Spain has the third lowest median income level (after Portugal and Greece) but inequality indicators are among the highest and overall at-risk-of poverty indicators are above the EU average (20 percent at-risk-of poverty rate; 29 percent at-risk-of poverty gap). Incomes grew by some five percent between 1994 and 1997. The income level of the short-term (but not long-term) unemployed is not different from that of the total

population. Spain is the only country together with Greece where single parents reach the same income level than the total population. As in the other three Southern European countries, income levels of single adult men largely exceed those for the entire population (in Spain by two thirds), a higher differential than in EU in general. Also, high education, especially when it concerns all adults in a household, is associated with very high relative income levels and a very low at-risk-of poverty rate (four percent).

The pattern of poverty risk over time is very similar in Spain to other Southern European countries: very high any-time (35 percent) and somewhat more moderate persistent at-risk-of poverty rates (15 percent), combined with high exit rates after one year, yet also a high proportion who re-enter the state of poverty risk. Occupational status seems to have a close relationship with persistent risk of poverty: manual workers have a risk to be persistently poor which is almost eight times that of other occupational groups.

Similarly to other Southern European countries, non-monetary deprivation rates across all dimensions are above EU average except for housing facilities that show a more advantageous picture: only two percent of Spanish people do not have basic housing facilities like hot running water or flushing toilet. Rather than being able to identify groups facing a very high risk of deprivation, one can distinguish sub-populations with relative risks that are below the EU average: these groups are households in which all adults achieved high educational level and non-manual workers. More than every third Spanish citizen was deprived at least once during the examined four years period, and 19 percent were deprived for at least three out of four years, which is 1.5 times higher than the average of EU countries.

Looking at the combination of income poverty risk and non-monetary deprivation reveals a similar picture as when looking at the two separately: Spanish indicators rank after Portugal and Greece. The share of population experiencing poverty risk and/or deprivation between 1994 and 1997 is close to 50 percent, while 27 percent were affected by one of the two persistently. Less than one in ten faced poverty risk *and* were deprived at the same time for at least three years, while the any-time 'manifest' deprivation rate is 18 percent. The picture of the population at-risk-of poverty in Spain which is concerned with basic deprivation is twofold: while the share of those facing poverty risk and unable to go away from home for holiday once a year and replace worn out furniture is well above EU-average, clothing and having meat every second day is less of a problem to Spanish citizens than on EU-average. Similarly to other Southern European countries, the reported health situation of people living in a state of poverty risk is better than in other, more wealthy, countries.

Spain has, together with Greece and Italy, the lowest share of recipients of social transfers in the population in EU (58 percent). While the percentage of recipients of non-pension transfers considerably decreased between 1994 and 1997, that of pension recipients slightly increased. The share of transfers in income is, however, not significantly below EU average and the share of transfers in incomes of recipients even is significantly above EU average. Pensions make up two thirds of all social transfers, which is a higher percentage than in most other countries. As in the other three Southern European countries, sickness and invalidity payments are the most important component of non-pensions transfers but unemployment benefits are equally very high: both types of benefits taken together can be seen as pure replacement transfers and they make up 90 percent of non-pension transfers, by far the highest percentage recorded in EU. These two types of transfers therefore have some impact on the reduction of poverty risk in Spain, although the impact is below EU average (but above the values recorded for the other Southern European countries). Other non-pension transfers (e.g. family allowances) are of marginal importance and have no impact on the reduction of poverty risk.

9.6. France

The median income level in France corresponds to the EU average. It increased by approximately nine percent between 1994 and 1997. Income inequality and incidence of poverty risk in France are around average (16 percent at-risk-of poverty rate; 21 percent at-risk-of poverty gap). Compared to other countries, the relative income level of young people (aged 18-24) is lower: 82 percent that of the entire population. The risk of poverty among persons without EU citizenship is three times higher than for the total population and higher than in other countries for which this information is available.

Any time- and persistent at-risk-of poverty rates follow the same pattern as cross-sectional poverty statistics and match the EU-averages. Comparatively low exit and re-entry rates suggest that the population facing poverty risk is rather stable. Large families with three or more children and manual workers are specific risk

groups with regard to persistent poverty risk; the latter sub-population has a risk of being long-term poor which is more than six times higher that of others.

Most non-monetary deprivation indices follow EU averages. The exception is the housing deterioration dimension which indicate a higher proportion of the French population having problems with their surrounding. France is in the group of countries where foreign citizenship is equivalent to a very high deprivation risk: the share of deprived foreign citizens in France is more than double that of the whole population. Similarly to cross sectional statistics, any-time and persistent poverty risk indices (24 and 13 percent respectively) correspond to the EU averages.

Corresponding to the cross-sectional poverty risk and deprivation indices, the combination of income poverty risk and non-monetary deprivation also match the EU-average: six percent of the population faced poverty risk and was deprived at the same time for at least three years, the mean over the period was seven percent. Less than 40 percent experienced poverty risk or deprivation for at least one year, which is slightly below the average of EU-countries. Proportionally more French people facing poverty risk live in areas with crime and vandalism than on EU-average, and report noise pollution around the dwelling. They are also more isolated than in most EU countries: 16 percent do not meet friends, not even once a month.

The importance of social transfers in France corresponds to the EU average. The share of recipients has increased between 1994 and 1997, mostly due to the growth of non-pension transfers. All transfers taken together are fairly evenly distributed with a slight bias to richer income groups, although the lowest income groups gained shares in transfers over the years. This bias towards higher incomes is entirely due to pensions which constitute around half of social transfers. Pensions account for a higher share in total income of pensioners than on EU average, especially in higher income groups (70 to 80 percent). Among non-pension transfers, sickness and invalidity benefits are less important than in most EU countries, but social assistance and housing benefits represent one quarter – the highest value in the EU. Nevertheless, the weight of the different transfer benefits in the incomes of recipients is around or below EU average. Unemployment benefits and sickness/invalidity benefits excepted, the various non-pension transfers are more targeted to the poor than in other countries, especially family benefits and social assistance. Non-pension transfers taken together reduce both the at-risk-of poverty rate and the at-risk-of poverty gap by some 40 percent and all social transfers reduce long-term poverty risk by two thirds – values corresponding to the EU average.

9.7. Ireland

Ireland recorded by far the fastest income growth across EU (26 percent between 1994 and 1997) but the level of median income is still below EU average. Nevertheless the share of persons with low incomes slightly increased while the share of persons in the highest income groups decreased. Income inequality and the percentage of persons living in a state of at-risk-of poverty are higher than on EU average (20 percent at-risk-of poverty rate). However, a large number of the latter are close to the at-risk-of poverty threshold. Considering the lowest at-risk-of poverty gap (15 percent) as well as the lowest inequality among poor across Europe, a composite poverty risk indicator for Ireland would be below EU average (in the range between the Austrian and German level). With income levels of around 60 percent of the total population, single elderly fare worse than in the other European countries. This results in very high at-risk-of poverty rates, especially for older women. Income levels triple from half to one and a half the overall level when moving from lowest to highest household work intensity; on EU average, levels less than double. Further, high educational attainment is associated with one of the lowest relative poverty risks found in EU.

The proportion of persons facing any-time and persistent poverty risk are somewhat higher than on EU average: 31 and 15 percent respectively. While in most countries the probability of exit from the state of poverty risk decreases over time (i.e. exit rates are highest after one year and lowest after three years), this pattern does not hold in the Irish case and the exit rate remains just above 20 percent throughout the second and third years. (It is to be found at 32 percent in the first year). Manual workers and lower educated population groups face much higher risks to become persistently poor than others.

Due to the third greatest decrease in EU since 1994 (-22 percent), overall non-monetary deprivation corresponds to the EU average in 1997; however, the share of population lacking durables (colour TV, video-recorder, etc.) is significantly higher (16 percent) than the EU average. Households with lower educational attainment and the people having experienced unemployment in the past face the highest relative deprivation

risks (1.6 and 2.3, respectively). Non-monetary deprivation over time shows a similar picture to the average of EU-countries: the any-time deprivation index is 26 percent while 13 percent of the Irish experienced deprivation for at least three out of four years.

The share of 'manifest' deprived people (facing poverty risk and being deprived at the same time) in Ireland corresponds to the EU-average over the whole period, and the same is true for those who experienced this situation persistently (seven percent). 22 percent of the Irish was either deprived or at risk of poverty in at least three out of four years, while the share of people living in a state of poverty risk or being deprived in terms of non-monetary items at any-time between 1994 and 1997 was double as high. The percentage of Irish persons facing poverty risk and reporting rot in the dwelling is the third highest across EU (20 percent) and similarly, deprivation with regard to durables (like having a car or phone) is higher in Ireland than EU-average. On the other hand, the general health situation of the population at-risk-of poverty is reported to be better than in most other EU countries (only seven percent estimate their general health situation bad or very bad), and the same holds for social contacts: only one in hundred persons facing poverty risk meets people less frequently than once a month.

The overall share of social transfers in incomes in Ireland corresponds to EU average (33 percent) but the share of transfer recipients in the population is higher than average. Between 1994 and 1997, Ireland recorded the highest decrease in transfer shares (-5 percentage points), almost entirely due to non-pension transfers. Social transfers are much more important for low income groups (70 percent) than for higher and extremely high income groups (eight to 12 percent) the highest differential found in EU. In addition, transfers seem to be more targeted to lower income groups than in other EU countries, Denmark excepted. Just one third of social transfers are pensions, the lowest value together with Finland. As is the case in Denmark and the United Kingdom, public pension shares in disposable income are higher for low-income groups and lower for high and very high income groups than in the rest of EU. Concerning non-pension benefits, the importance of unemployment-related benefits is noteworthy in Ireland: they constitute almost half of all non-pension benefits (highest value across EU), while social assistance and housing benefits make up just four percent (one of the lowest values across EU). Unemployment benefits also weigh more heavily in the incomes of recipients than in other EU countries, particularly so in the incomes of the poor. With over 40 percent going to the poorest 20 percent and five percent going to the richest 20 percent of the population, non-pension transfers taken together are distributed stronger to lower incomes than in any other EU country. Those transfers halve the at-risk-of poverty rate as they do on EU average, but Ireland is the only EU country in which the at-risk-of poverty gap is reduced through transfers even stronger, namely by two thirds.

9.8. Italy

The median income level in Italy is below EU average. It increased by around seven percent between 1994 and 1997. Income inequality is around EU average but poverty risk is above average (at-risk-of poverty rate of 19 percent), especially when considering the comparatively higher intensity and inequality among those at risk of poverty (at-risk-of poverty gap of 31 percent). Concerning the age profile, the elderly (aged 65 and over) have a lower at-risk-of poverty rate (15 percent) than all other age groups in Italy. One out of two long-term unemployed fall below the at-risk-of poverty threshold which is one of the highest values across the EU. Similarly, marginal household work intensity is associated with a very high at-risk-of poverty rate.

Italy has the fifth highest any-time at-risk-of poverty rate after Portugal, Greece, Spain and the UK. The persistent at-risk-of poverty rate (13 percent) is slightly higher than the EU average. Like in Greece, the share of people who exit the state of poverty risk after one year is high and a comparable number fall back into this state afterwards. Family size seems to have a close relation with the persistent risk of poverty: large families (couples with three or more children) face a risk of persistent poverty which is more than three times higher than for families with one or two children.

Although the overall non-monetary deprivation rate corresponds to EU average in Italy, a more detailed picture emerges when looking at individual deprivation dimensions: proportionally more Italians have difficulties with providing for their basic needs, but only half as compared to the EU average report housing deterioration. Deprivation statistics over time match EU averages: the any-time deprivation rate is 25 percent, while 12 percent experienced non-monetary deprivation for at least three out of four years.

Combined poverty risk / deprivation indices correspond to the EU averages in Italy: six percent of the population was affected by income poverty risk and non-monetary deprivation at the same time for at least three years between 1994 and 1997; and 21 percent experienced either poverty risk or deprivation persistently for the same period. In accordance with the above findings, the proportion of those facing poverty risk and having difficulties with providing basic needs is significantly higher for most of the items. Similarly to other Southern European countries, the reported health situation of those at risk of poverty is better than on EU average: only 14 percent reported serious chronic health problems, which is the lowest value across EU.

The share of recipients of social transfers in the population in Italy is considerably lower than in most EU countries, despite an increase between 1994 and 1997 (entirely due to pensions). Despite the low percentage of recipients, the share of transfers is about EU average and, moreover, the weight of transfers in the incomes of recipients is the highest across EU, indicating that a lower percentage of transfer recipients rely to a greater extent on social transfers than in the other European countries – a situation similar to that in Greece and Spain. However, transfers seem to be biased to middle and higher income groups. As much as 84 percent of social transfers are made up by pensions, the second highest percentage after Greece. Pensions constitute more than 55 percent of incomes of the elderly in all income classes but are most important for the middle-income groups. As in the other three Southern European countries, sickness and invalidity payments are the most important component of non-pension transfers (51 percent). Non-pension transfers are regressively distributed in Italy, i.e. slightly targeted to richer income groups, together with Portugal the only country with this feature. Similarly, less than half of non-pension transfers reach the pre-transfer poor (the lowest value in EU), and this percentage is particularly low for family and housing benefits. As a consequence, Italy, together with Greece, displays the lowest reduction of poverty risk due to non-pension transfers (-10 percent). However, the reduction of long-term poverty risk through social transfers is higher and around EU average.

9.9. Luxembourg

Luxembourg has by far the highest level of median income, some 40 percent higher than the EU average and almost three times the level of the Portuguese median income. During the three years between 1994 and 1996, this level stagnated but shares of persons seem to have shifted from the lowest and highest income groups especially to middle income groups. The level of income inequality is slightly below EU average. Poverty risk indicators are among the lowest across Europe (at-risk-of poverty rate of 12 percent, at-risk-of poverty gap of 17 percent). The average income of self-employed with employees is two thirds higher than that of the total population, one of the highest values in the EU. On the other hand, the unemployed, and especially the long-term unemployed, only reach two-thirds of the population's income level. Luxembourg also displays a significant age differential: with 18 percent, the at-risk-of poverty rate for those aged below 18 is twice as high as the one for those aged 65 and over.

In accordance with cross-sectional trends, the share of population affected by poverty risk at any time is smaller (23 percent) in Luxembourg than on European average and the same is true for the risk of persistent poverty (eight percent).

Besides Denmark, Luxembourg has the most favourable non-monetary deprivation indicators across EU: following a 24 percent improvement since 1994, in 1996 only eight percent of the population was deprived in terms of non-monetary dimensions. Another feature similar to that of Denmark is that foreign citizenship increases the deprivation risk to a large extent: foreign citizens living in Luxembourg face a risk of being deprived which is more than twice as high as for the entire population.

Corresponding to the above-discussed trends, the share of the population facing poverty risk and concerned with non-monetary deprivation is lower than the average of EU-countries, however, answers to subjective evaluation questions are much closer to EU-average, especially for questions regarding health situation. Moreover, the share of the population in a state of poverty risk and meeting people less frequently than once per month is twice as high as the average of EU countries.

The share of recipients of social transfers in Luxembourg is above EU average, the transfer share in incomes about average. Both shares increased between 1994 and 1997. However, transfers have a lower weight in the incomes of recipients than in most other EU countries). Transfers are relatively evenly spread across the income distribution, combining a rather regressive distribution of pensions with a rather progressive distribution of non-pensions. Almost 60 percent of all transfers are made up by pensions, a percentage above EU average. The

share of pensions in the incomes of middle-income pensioners is above EU average (82 percent), while the pension share in incomes of low-income pensioners is lower (64 percent). Together with Austria, Luxembourg is the only country in which family benefits make up more than half of non-pension transfers, 54 percent. Although the share of unemployment benefits is negligible and the lowest across EU (four percent), those benefits account for 20 percent in the incomes of recipients, which is close to EU average. On the other hand, the percentages of education allowances (10 percent), housing benefits (16 percent) and social assistance payments (36 percent) going to those facing poverty risk are among the lowest levels recorded in the EU. Nevertheless the reduction of poverty risk through non-pension transfers taken together is somewhat higher than on EU average and focuses on reducing the number of those at risk of poverty more than on reducing intensity. The reduction of poverty risk among children (via family benefits) is higher than in most countries, while the reduction of poverty risk among unemployed (via unemployment benefits) is lower. Together with Denmark, Austria and the Netherlands, the impact of social transfers in reducing long-term poverty risk in Luxembourg is the highest across EU.

9.10. The Netherlands

The median income level in the Netherlands is about EU average. It increased between 1994 and 1997 by some 13 percent. The level of inequality as well as the overall at-risk-of poverty rate is below EU average (at-risk-of-poverty rate of 11 percent). The at-risk-of poverty gap (21 percent) is close to the EU average. The Netherlands is the only country where the average income level of farmers and smallholders matches that of the entire population. The at-risk-of poverty rates of single persons below 30 is very high (over 50 percent). This contrasts with very low at-risk-of poverty indicators for single prime-aged adults. At-risk-of poverty rates far exceeding the EU average are recorded for single parents.

After Denmark, the Netherlands has the second-lowest at-risk-of poverty rate across EU. Also, only seven percent fall below the at-risk-of poverty line for three or more years. Although the exit rate from poverty risk after one year is high, the proportion who falls back is among the highest in Europe (37 percent in the following two years). Very high relative risks of persistent poverty for lone parents confirm the insecure position of this sub-population already identified by cross-sectional statistics.

After Denmark and Luxembourg, the Netherlands has the third-lowest overall non-monetary deprivation rate in the EU (10 percent), which is partly due to the very low deprivation rates in basic and secondary dimensions: only a small proportion of Dutch people experience problems with providing for their basic needs and possessing necessary durables in the household. Specific groups at relatively high risk of deprivation are single person households (especially young adults) and single-parent households: their relative deprivation risk (2.4) is the highest across the EU. Similarly to the cross-sectional statistics, any-time and persistent deprivation indices are well below EU-averages.

After Denmark and together with Austria, the Netherlands provides the second lowest values across EU when combining income poverty risk with non-monetary deprivation: only three percent of the population experienced both for at least three years between 1994 and 1997. The proportion of people affected by manifest deprivation at any-time during the period is seven percent. Proportionally more Dutch at risk of poverty live in worse areas than on average in the EU: 39 percent of them reported noise-pollution, while 25 percent live in areas with crime or vandalism.

The share of social transfers and of transfer recipients in the Netherlands is around EU average. Social transfers appear to be fairly evenly distributed across the income distribution. 47 percent of all transfers are made up by pensions, and 19 percent of the population receive pensions – values below the EU average. The Netherlands is the only EU country in which the share of pensions in the incomes of middle, high and very high income pensioners is higher than in the incomes of low-income pensioners: 73 to 84 percent versus 61 percent, respectively. Non-pension transfers, on the other hand, are more targeted to lower income groups in the Netherlands. 72 percent of sickness and invalidity benefits, 65 percent of education allowances and, in particular, 94 percent of social assistance payments go to those who could be said to face poverty risk when transfers are not considered. The latter two benefits also weigh much more in the income of recipients than in other EU countries. All non-pension transfers together have an above-average impact on reducing poverty risk rates and gaps. Moreover, together with Denmark, Austria and Luxembourg, the impact of social transfers in reducing the risk of long-term poverty in the Netherlands is the highest across EU.

9.11. Austria

The Austrian median income level is above EU average. During the three years between 1995 and 1997, this level stagnated. Shares of persons have shifted from the highest income groups to middle and higher income groups. Income inequality is lower than in other EU countries (Denmark, Finland and Sweden excepted) and both the at-risk-of poverty rate (13 percent) and the at-risk-of poverty gap (21 percent) are below EU average. The income level of the short-term (but not long-term) unemployed is not different from that of the total population. Together with Belgium and the United Kingdom, Austria displays the highest gender at-risk-of poverty differential: the at-risk-of poverty rate of women is 23 percent higher than that of men. The at-risk-of poverty rate of youth (those aged 18 to 24) is lower than in any other EU country. On the other hand, poverty risk among the elderly, especially single women, is above EU average.

In Austria any-time and persistent at-risk-of poverty rates almost exactly match those of Luxembourg (24 and 8 percent respectively) and thus are below the EU average.

Similarly, non-monetary deprivation indices are below the average of EU-countries: the overall deprivation rate is 12 percent, and the share of the population reporting problems with the dwelling and it's surrounding is also significantly lower than on average. Foreign citizenship increases non-monetary deprivation risk: foreign citizens in Austria face a deprivation risk which is 2.2 times higher than for the entire population. Longitudinal overall deprivation indices are below EU-averages: the any-time deprivation rate is 20 percent, while nine percent of Austrian citizens experience deprivation persistently.

After Denmark and together with the Netherlands, Austria has the second lowest values across EU when combining income poverty risk with non-monetary deprivation: only three percent of the population experienced both for at least three years between 1994 and 1997. More people (but still well below EU-average) faced the risk of income poverty *or* were deprived persistently over the same period (15 percent). Deprivation rates in non-monetary items for those facing income poverty risk are lower in most cases, but relatively more people in Austria reported chronic health problems than on EU-average.

Although the share of social transfers in disposable income is around EU average (33 percent), the share of transfer recipients is higher than in most countries (85 percent). Between 1994 and 1997, the share of recipients increased, entirely due to non-pension transfers. Transfers taken together are fairly evenly distributed across the income distribution in Austria; between 1994 and 1997, the highest income groups lost transfer shares to the benefit of both middle and low income groups. Almost 60 percent of all transfers are made up by pensions, a percentage above EU average. Those are slightly biased to higher income groups, as in most EU countries. Together with Luxembourg, Austria is the only country in which family benefits make up more than half of non-pension transfers, 54 percent. On the other hand, the share of social assistance is the lowest across EU, together with Belgium. The shares of different transfer types going to the pre-transfer poor is in general below 50 percent and lower than on EU average, in particular in the case of housing benefits and social assistance payments (22 and 30 percent, respectively). Taken together, non-pension benefits are spread almost proportionally across the income distribution, a feature also found in Spain. Poverty reduction through non-pension transfers focuses on decreasing the number of those at risk of poverty, while the reduction of the at-risk-of poverty gap is below EU average. Together with Denmark, Luxembourg and the Netherlands, the impact of social transfers in reducing long-term poverty risk in Austria is the highest across EU.

9.12. Portugal

Although household incomes grew faster than on EU average between 1994 and 1997, Portugal still has the lowest level of median income in EU: some 40 percent lower than the EU average and almost three times lower than the level of the Luxembourg's median income. Portugal displays the highest values for income inequality and poverty risk (rate of 24 percent), although the intensity of poverty risk is about the EU average (at-risk-of poverty gap of 24 percent). Relative to the entire population, average incomes are much higher for single adult men (134 percent) than for single elderly women (59 percent). At the same time, Portugal is the only EU country where the income level of couples with two children clearly exceeds the average level of the entire population. As is the case in other Mediterranean countries, especially Greece, education and social class are important criteria for both relative income levels and at-risk-of poverty levels. Having high education or being manager or proprietor more than doubles the average income of a person relative to the entire population – the highest ratio recorded across EU – and reduces at-risk-of poverty rates to marginal levels. On the other hand, at-risk-of

poverty rates are higher than in other EU countries for farmers and smallholders (50 percent), self-employed with no employees (29 percent), inactive persons (32 percent) but also the elderly (37 percent).

Besides Greece, Portugal has the highest proportion affected by poverty risk during the examined period (36 percent). Almost every fifth Portuguese (19 percent) faced poverty risk for at least three years during 1994-1997 which is the highest figure across the EU. This is undoubtedly related to the lowest exit rates across EU countries. Among those facing a persistent risk of poverty, persons with lower educational attainment are especially at risk.

Despite a slight decrease since 1994, Portugal displays the highest overall non-monetary deprivation rate in the EU in 1997: 34 percent of the Portuguese population was deprived in terms of non-monetary dimensions. Among others, deprivation in dimensions related to housing deterioration and environmental problems around the dwelling is especially high in Portugal: 42 percent reported housing deterioration (leaky roof, damp and rot) which is more than three times higher than EU-average. Like in Greece, deprivation in Portugal cross-cuts different sub-populations; there are no specific groups that face extremely high deprivation risks compared to the entire population. Reflecting the very high cross-sectional deprivation rates, almost every second Portuguese experienced deprivation for at least one year during the four-year period, and approximately one-third of the population was deprived persistently.

Portugal is the only country where the proportion of the population facing income poverty risk *and* being deprived at the same time for at least three years exceeds 10 percent. Also, a very high proportion (38 percent) experienced poverty risk side by side with non-monetary deprivation at least for one year between 1994 and 1997. Deprivation rates among those living in a state of poverty risk are for almost every item the highest in the EU. In addition, Portugal deviates from the other Southern European countries with regard to the reported health situation of those facing poverty risk: the corresponding values are above average of EU-countries.

Portugal combines one of the lowest shares of social transfers in income with one of the highest shares of transfer recipients in EU. The percentage of recipients of both pensions and non-pension transfers increased between 1994 and 1997 more than in most other EU countries. Portugal also displays the lowest weight of social transfers in the incomes of transfer recipients, a feature which contrasts with the other three Southern European countries which combine low overall transfer shares with high shares in recipients' incomes. Transfers in Portugal are slightly biased to richer income groups, and in the years between 1994 and 1997 low and middle income groups lost transfer shares at the expense of the richest income groups. As in the other three Southern European countries, the main part of transfers are pensions (two thirds). Those are distributed quite regressively in Portugal: nine percent go to the poorest 20 percent, while 43 percent go to the richest 20 percent. As in the other three Southern European countries, but to a lesser extent, sickness and invalidity payments are the most important component of non-pension transfers (35 percent). Unemployment payments and family allowances are equally important (around 30 percent each), although the latter have a very low weight in the income of recipients (four percent, the lowest value across EU). On the other hand, housing allowances have a higher weight in the incomes of recipients in Portugal than elsewhere (22 percent). Non-pension transfers are regressively distributed in Portugal, i.e. slightly targeted to richer income groups, together with Italy the only country with this feature. Two transfer types display very low percentages which reach those facing pre-transfer poverty risk (below 15 percent): education allowances and social assistance payments. Poverty risk reduction through non-pension transfers is very low in Portugal (25 percent), it is only lower in Greece and Italy. An exception is poverty risk reduction among unemployed though unemployment benefits which is EU average. On the other hand, long-term poverty risk is less reduced through social transfers than in any other EU country.

9.13. Finland

The median income level in Finland is slightly below EU average. Nevertheless, indicators for income inequality and poverty risk are the second lowest after Denmark (at-risk-of poverty rate of eight percent, at-risk-of poverty gap of 12 percent). Like it is the case only in Ireland and the two other Nordic countries, income levels of single male adults do not exceed the average level of the entire population. Differentials in income levels by social class are less pronounced in Finland than elsewhere. Similar to the two other Nordic countries, higher education is not associated with significantly higher relative income levels. Across age groups, poverty risk is concentrated among the youth (those aged 18 to 24), a feature only found also in Sweden. Poverty risk among persons without EU citizenship is almost four times higher than for the total population which is the highest

relative poverty risk ratio across countries for which this information is available. A high at-risk-of poverty rate exceeding the European average is also found for single men and women under 30. On the other hand, poverty risk among households with children (including single parents and households with many children) is lower in Finland than elsewhere, Denmark excepted.

Overall the non-monetary deprivation rate (14 percent) is slightly below the EU average, but Finland displays the lowest population share across EU (five percent) that reports housing deterioration (leaky roof, damp, rot). Being a foreign citizen, unemployed or inactive significantly increases the risk of being deprived in Finland. The same holds for young single person households: they face an overall deprivation risk which is twice as high as for the entire population.

Non-monetary deprivation rates among persons living in a state of at risk of poverty are below EU-average in most of the dimensions, except for environmental items: 23 percent reported pollution in the surroundings (the second highest value in the EU). Similarly, almost every fourth poor live in areas with crime or vandalism, which is among the highest values in the EU.

Finland has by far the highest levels of social transfer shares in income and transfer recipients' shares throughout EU.[61] With a 77 percent share in income of the low-income population, social transfers are more important than in any other EU country, and four times as high as for very high incomes in Finland (such a high ratio is recorded only in Denmark, Ireland and the United Kingdom). Social transfers are spread fairly evenly across the income distribution in Finland. Just one third of social transfers are made up by pensions, the lowest value recorded together with Ireland. They are, however, more important in the incomes of pensioners (of all income groups) in Finland than in most other EU countries. As for the composition of non-pension transfers, unemployment benefits are more important than on EU average and family benefits are less important. Unemployment benefits, sickness/invalidity payments and family allowances have a higher weight in the incomes of recipients than on EU average. Overall, non-pension benefits have higher targeting features in Finland (together with Denmark and Ireland) than in other countries. In particular, two thirds or more of unemployment benefits as well as sickness/invalidity payments go to those facing pre-transfer income poverty risk. Non-pension transfers taken together reduce both the at-risk-of poverty rate and the at-risk-of poverty gap more than in other EU countries. At-risk-of poverty rates among children (via family benefits) and unemployed (via unemployment benefits) are reduced by three quarters.

9.14. Sweden

The median income level in Sweden matches the EU average. Together with the two other Nordic countries, Sweden displays the lowest income inequality indicators across EU and poverty risk indicators are below EU average, too. Those between 55 and 64 have higher relative average incomes than other age groups, but income levels of single male adults do not exceed the average level of the entire population. Similar to the two other Nordic countries, higher education is not associated with significantly higher relative income levels. Self-employed with no employees, farmers and smallholders as well as manual workers have the lowest relative average income ratios across EU, between 60 and 80 percent of the level of the entire population. Those three social groups also have EU-wide the highest at-risk-of poverty rates (31, 44 and 30 percent respectively). Across age groups, poverty risk is concentrated among the youth (those aged 18 to 24), a feature only found also in Finland. On the other hand, Sweden has one of the lowest at-risk-of poverty rates among the elderly across EU. The relative poverty risk of the short-term unemployed is higher than elsewhere in the EU.

Social transfer shares in income and transfer recipients' shares in Sweden are above EU average. Social transfers on the whole are distributed fairly evenly, i.e. neither poorer nor richer income groups receive a considerably higher proportion of transfers. Pensions make up around half of all transfers which is EU average. They are slightly biased to middle and higher income groups but less so than in most other EU countries. Among non-pension transfers, social assistance and housing benefits are more important than in other EU countries (France and United Kingdom excepted) while invalidity and sickness benefits constitute just 10 percent – the lowest value across EU. Social assistance but also education allowances weigh more heavily in the incomes of recipients in Sweden than on European average (20 to 30 percent), while family allowances

([61]) For the following considerations, the caveat on Finnish transfer data implying overestimation of social transfers should be kept in mind (methodological annex).

have a below-average weight (around 10 percent). All non-pension transfers taken together are distributed slightly towards lower income groups. Poverty risk reduction through non-pension transfers is above EU average, focusing more on reducing the numbers of those facing the risk of poverty and somewhat less on closing the at-risk-of poverty gap.

9.15. The United Kingdom

The median income level in the United Kingdom is about 15 percent above EU average. Between 1994 and 1997, this level increased at a faster path than on EU average, by 18 percent, slightly favouring lower and higher income groups at the expense of middle and very high income groups. Nevertheless, income inequality and poverty risk indicators are among the highest across EU (at-risk-of poverty rate of 22 percent, at-risk-of poverty gap of 31 percent). While average incomes of the youngest (below 18) are 17 percent lower than the national average, those of prime-aged adults (25 to 54) are 12 to 20 percent higher – respectively among the lowest and highest values recorded across EU. The relative income level of the short-term unemployed is higher than on EU average, reaching a level of 96 percent of the entire population. Households without pensioners and with no children have higher average incomes relative to the entire population than in any other EU country, while those with three or more children – have lower average incomes. Equally disadvantaged are single parents: they have the lowest relative income across the EU, barely exceeding half the level of the total population. Across age groups, the youngest (below 18) and the oldest (above 65) citizens have the highest at-risk-of poverty rates in the United Kingdom (30 and 32 percent respectively). Some population groups in the United Kingdom who have lower at-risk-of poverty rates than on EU average are managers and proprietors; self-employed with employees; those who were never unemployed or experienced unemployment longer ago than five years; single adult men; and households with two or more adults but no children.

Corresponding to the cross sectional statistics, the United Kingdom has an above-average any-time at-risk-of poverty rate (32 percent) and a relatively high persistent at-risk-of poverty rate (14 percent). Single-parent families as well as large families are especially at risk of being captured by poverty over time. Couples with three or more children face a persistent poverty risk which is three times higher than that of couples with one or two children.

While the overall non-monetary deprivation rate corresponds to the EU average in the United Kingdom, the country displays the lowest population share (0.2 percent) lacking housing facilities such as hot running water or flushing toilet. Similarly to most other EU countries, unemployment and inactivity increases overall deprivation risk, and the same holds for single parent households. Corresponding to the cross-sectional indices, any-time and persistent deprivation rates are around the EU average in the United Kingdom.

The picture of non-monetary deprivation among poor people in the UK does not differ very much from that of the EU-average on most dimensions. 22 percent of those facing poverty risk live in areas with crime or vandalism, and an equivalent number are not satisfied with their housing situation. Indicators on the reported health situation are ambiguous: while only 13 percent of those facing poverty risk reported bad or very bad general health conditions, 42 percent responded having chronic health problems.

Social transfer shares in income and transfer recipients' shares in the United Kingdom are about EU average. Pensions showed an increasing and non-pension transfers showed a decreasing trend between 1994 and 1997 (this concerned both income and recipients' shares). With a 67 percent share in incomes of the low-income population, social transfers are five times as high as for very high incomes in the United Kingdom (such a high ratio is recorded only in Denmark, Ireland and Finland). Nevertheless, social transfers are spread rather equally across the income distribution, although the middle income groups somewhat lost shares in transfers between 1994 and 1997. Almost half of all transfers are made up by pensions which is about EU average. As is the case in Denmark, public pension shares in disposable income are higher for low-income groups (above 85 percent) and lower for high and very high income groups (below 52 percent) than in the rest of EU. Among non-pension transfers, family benefits constitute the main part with 44 percent but invalidity/sickness payments and housing benefits are also important (above EU average). The proportion of unemployment benefits (seven percent), on the other hand, is lower than in any other country, Luxembourg excepted. The share of family and housing benefits going to the pre-transfer poor is also higher than in most other EU countries (above 50 percent).

10. Conclusions and Recommendations

This report has analyzed the trends and patterns with regard to risks of income poverty and social exclusion in the EU Member States using the data from the European Community Household Panel Survey, more specifically that of the Users Database for waves one to four, 1994 to 1997[62].

The final sections of individual chapters and the Executive Summary already present the main findings succintly. Here, we point to the main policy- and research-relevant conclusions.

Income poverty is probably the most important aspect of social exclusion. Non-monetary or lifestyle deprivation is as diffused as the risk of income poverty, but it does not necessarily affect the same population. Country variation with regard to non-monetary deprivation dimensions shows that the latter are not alone related to individual capabilities associated with resources, including earnings, but also to locational factors, like urban-rural or environmental pollution patterns, and public policy influences associated with the diffusion of social infrastructure, for instance, social housing. The conclusion to draw from this finding is that social policy aiming at increasing capabilities and reducing social exclusion needs to coordinate closely with other policies, especially those involving public investment to the provision of social infrastructure. In turn, such policies must always consider social exclusion and inclusion aspects.

The call for adopting a multi-dimensional perspective on social exclusion also implies considering variables such as subjective well-being and social relations. However, our analysis shows that particular care is required when looking at such dimensions, as these are particularly context-specific and possibly culturally variable. Thus satisfaction or happiness – or even health – are terms that carry different connotations in different countries, hence their assessment with reference to deprivation or income poverty risk must take these country differentials into account. Likewise membership in organizations is closely related to political cultures and here too we find significant country variation. From the research side, what these findings suggest is that when designing future surveys, more attention ought to be given to instruments that allow the exploration of individual coping strategies in specific life situations and also in different social contexts. Qualitative case-study research is here necessary to complement our perspectives derived from quantitative survey analyses.

A multi-dimensional perspective on income poverty risk and social exclusion also means taking advantage of the wealth of measures available to the income analyst, also within the conventional framework. A different, and much more differentiated and policy-relevant, picture emerges on any particular country and at the comparative level if we do not only look at the at-risk-of poverty rate but also at the distance between income groups (as tapped by the P90/P10 measure), income concentration (as measured by the S80/S20 measure or the Gini coefficient), the at-risk-of poverty gap, the inequality among the poor (as measured by the Sen index) or the degree of poverty risk (as measured by the fuzzy measure).

The consistent finding across the EU and in each EU Member State that the risk of income poverty affects a larger proportion of the population than the cross-sectional measure would suggest, but also the finding that both income poverty risk and non-monetary deprivation are ‘sticky’, i.e. they tend to affect the same individuals over time, with some carrying a disproportionate burden, should alert policy-makers as well as social analysts to the fact that social exclusion is not merely a structural characteristic of our societies – much in the same way like unemployment or the lack of full employment to which income poverty risk and non-monetary deprivation are closely related – but also a deep-seated social condition. Income poverty risk and deprivation can never be entirely obliterated insofar as statistics are concerned. Still, increased efforts are called for that redress inequality thus reducing the overall risk of poverty, and its extreme negative consequences, especially among those that fall into the poverty trap.

The equally consistent finding that resource-related factors, in particular education, social class and employment, determine pathways into social exclusion (including persistent poverty risk, persistent deprivation and multiple deprivation) suggests that a political and policy commitment to education, training and employment remain – or should remain – strongholds of the national welfare states and the European social agenda. Targeted policies concentrating on those with accentuated needs over a period of time, like single parent households, older single person households or households with dependent children, are a complement but not a substitute of more generic social policies.

([62]) From ECHP UDB wave 5, version December 2001

Appendix 1: Glossary

Any time at-risk-of poverty: the maximum degree of (income- or deprivation-) poverty risk an individual experienced during the reference period. In the conventional approach this refers to the experience of poverty risk in any year within the reference period. The corresponding any time at-risk-of poverty rate represents the average value for the population.

Basic lifestyle deprivation (D1): comprises items such as food and clothing, a holiday at least once a year, replacing worn-out furniture, and the experience of arrears for scheduled payments (see Chapter 6 for a detailed list of items)

Cross-sectional at-risk-of poverty rate: at-risk-of poverty rate at a single year

Current lifestyle deprivation (CLSD) index: combines items from basic and secondary dimensions into one simplified scale of non-monetary deprivation. This is used in Chapter 7 to investigate persistent deprivation and poverty risk. Differences in the relevance of particular items across Member States are taken into account in the weighted version.

Deprivation index: (see relative non-monetary deprivation index).

Deprivation: Relative disadvantage in relation to essential non-monetary or lifestyle dimensions. In this report, deprivation is defined with reference to 24 items which are included in the ECHP (see dimensions of non-monetary deprivation).

*Dimensions of non-*monetary *deprivation*: 24 items contained in the ECHP were identified as relevant for deprivation. Using principal components analysis these items were grouped into five distinct dimensions: Basic lifestyle deprivation (D1), Secondary lifestyle deprivation (D2), housing facilities (D3), housing deterioration (D4), environmental problems (D5) (see Chapter 6 for a detailed description).

Disposable income: Total net yearly income of a household from all sources: earnings, self-employment and capital income, public and private transfers and other income sources, net of income taxes and social security contributions. Total (disposable) income is then adjusted by the number of persons in the household (see 'equivalized income').

Entry rate: average percentage of persons who were not at risk of poverty at one year but fell below the relevant at-risk-of poverty line in the subsequent year.

Environmental problems (D5): problems relating to noise, pollution, vandalism and inadequate space and light (see Chapter 6 for a detailed list of items).

Equivalized income: adjustment of household income to take into account economies of scale within a household. Members of a household are weighted differently according to age. The modified OECD equivalence scale which is used in this report assigns a weight of 1 to the first adult in a household, 0.5 to other adults and 0.3 to children.

Exit rate: average percentage of persons who were at-risk-of poverty one year and were above the relevant at-risk-of poverty line in the subsequent year.

Fuzzy measures: alternative methodological approach which assigns for each individual a degree of poverty risk (or deprivation) rather than relying on the conventional dichotomy of those at risk of poverty and those not. The measure is constructed such that the national average is identical with the at-risk-of poverty rate (see Annex 2 for a detailed description).

Gini coefficient: measure of (income) inequality or concentration. The Gini coefficient is derived from the *Lorenz curve*, which plots cumulative shares of the population, from the poorest upwards, against the cumulative share of incomes that they receive. The Gini coefficient is defined as the area between the Lorenz curve and the 45°-line, taken as a ratio of the whole triangle. If incomes were equally distributed, the plot would trace a diagonal 45°-line ('line of perfect equality'), and the Gini coefficient would be 0. At the other extreme if the richest unit

received all income the Lorenz curve would lie along the horizontal axis, and then along the vertical axis at the 100 per cent income share ('line of perfect inequality'), and the Gini coefficient would be 100. An increase in the Gini coefficient thus represents an increase in inequality.

Housing deterioration (D4): the existence of problems such as a leaking roof, dampness and rot in window frames and floors (see Chapter 6 for a detailed list of items).

Housing facilities (D3): housing services such the availability of a bath or shower, an indoor flushing toilet and running water, facilities likely to be seen as essential (see Chapter 6 for a detailed list of items).

Income at-risk-of poverty threshold: income level which is assumed as minimal for the definition of poverty risk. Throughout most of this report, the 60 percent of the median equivalised (disposable) income of the total population is used as the at-risk-of poverty threshold. Chapter 7 also uses the 70 per cent threshold.

Income poverty risk: having disposable equivalized income which falls below the income at-risk-of poverty threshold.

Latent deprivation rate: combines income poverty risk and deprivation representing the average of the higher value of the two fuzzy indices for each individual.

Lifestyle deprivation: see deprivation.

Logistic regression model: several characteristics turned out to be associated with entry and exit rates which were included in a multivariate model controlling simultaneously for the most important factors. The estimated odds ratios attached to any category can be interpreted as their independent contribution to increase or decrease of entry/exit rates.

Manifest deprivation rate: combines income poverty risk and deprivation representing the average of the lower value of the two fuzzy indices for each individual. Can be interpreted as the extent of simultaneous income poverty risk and non-monetary deprivation.

Mean at-risk-of poverty rate: mean cross-sectional at-risk-of poverty rate in the reference period.

*Median: s*ummary of an (income) distribution the value of which splits the distribution into two parts of equal size. Exactly 50 percent fall below that value, 50 percent are above it.

Odds ratio: compares the degree of advantage/ disadvantage of particular groups with regard to a variable. Odds ratios show the ratio of entry/exit rate to the specified reference group (usually the one which has the lowest entry/exit rate). Odds are also used to represent findings of logistic regression models where they refer to the estimated probabilities to enter/exit poverty risk (see Annex 3 for detailed results).

Persistent deprivation (see persistent poverty risk).

Persistent risk of poverty: the second lowest degree of poverty risk an individual experiences during the reference period. In the conventional approach this refers to poverty risk in three out of four years, whereby the last year must be one of the three years. The corresponding *at-persistent-risk-of-poverty rate* represents the average value for the population.

Poverty (at-risk-of) gap ratio: measure of intensity of income poverty risk, defined as the difference between the median income of those at-risk-of poverty and the at-risk-of poverty threshold, as a percentage of the income at-risk-of poverty threshold.

Poverty (at-risk-of) rate: (or headcount ratio) measure of incidence of poverty risk, defined as the number of persons with an equivalent income below a given at-risk-of poverty threshold as a percentage of the total population.

Relative deprivation risk index: group specific deprivation risk divided by overall deprivation risk, multiplied by 100.

Relative non-monetary deprivation index (or indicator): indicates for each individual the prevalence of deprivation on the 24 ECHP items which have been used in this report. Differences in the overall importance across Member States are taken into account as well as redundancies between items within any of the five dimensions of non-monetary deprivation. (see Chapter 6 and Annex 2 for a detailed description).

Relative non-monetary deprivation rate: gives the average value of the corresponding index. The measure is constructed such that the average of the overall index is equal to the average poverty rate across EU-Member States. In addition to the overall index, separate indices for each dimension of non-monetary or lifestyle deprivation are presented in Chapter 6.

Relative poverty risk index: relative measure which divides the group-specific at-risk-of poverty rate by the overall at-risk-of poverty rate of the population (multiplied with 100). The relative poverty risk can be read as the at-risk-of poverty share of a group *k* divided by its population share. (Used also for relative deprivation index)

Secondary lifestyle deprivation (D2): comprises items that are less likely to be considered essential such as a car, a phone, a colour television, a video, a microwave, and a dishwasher (see Chapter 6 for a detailed list of items).

Sen Index: The Sen poverty index is a composite poverty measure, which combines incidence and intensity of poverty risk with the distribution of income among those at risk of poverty. It is defined as the at-risk-of poverty rate multiplied with the sum of the at-risk-of poverty gap and the Gini coefficient among those at risk of poverty weighted by 1 minus the at-risk-of poverty gap: S = $P * \{(+ (1-() * G_q\}$, where *P*=at-risk-of poverty rate, (=at-risk-of poverty gap ratio and G_q=Gini coefficient of those at risk of poverty.

Country abbreviations

B	Belgium
DK	Denmark
D	Germany
EL	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	Netherlands
A	Austria
P	Portugal
FIN	Finland
S	Sweden
UK	United Kingdom

Appendix 2: Methodology

This appendix elaborates on parts of the methodological framework of the study, and especially the 'fuzzy set' approach to analyzing poverty risk and the logistic regression analyses used in Chapter 5 to explore exit from and entry into poverty risk as well as transitions into poverty risk. It also provides background information on the European Community Household Panel (ECHP) survey.

The fuzzy approach to analyzing income poverty risk as a matter of degree

The approach presented to investigate the degree of poverty risk is an application of the mathematical theorem of 'fuzzy sets' and is hence mostly discussed in literature as the 'fuzzy' poverty index. While this measure can be constructed such that the overall risk of poverty matches exactly the headcount it is not limited to a dichotomous classification between those at risk of poverty and those not.

In essence, the concept takes into account that there is no fundamental difference between a person who is one Euro above the at-risk-of poverty line and a person who is just below it. Both persons may be regarded as at-risk-of poverty, though to a slightly different degree. While the conventional at-risk-of poverty head count ratio is most useful to describe poverty risk on an aggregate level, the degree of poverty risk focuses explicitly on the chances an individual has to reach a minimum acceptable standard of living in a particular country. This property of giving a meaningful weight to changes of income positions makes this alternative approach more suitable for investigating longitudinal changes than a dichotomous measure. Further the degree of poverty risk can be easily generalized to measure the degree of deprivation on non-monetary dimensions which is experienced by an individual in a particular country.

The measures of the degree of poverty risk at the individual level and of the associated poverty risk levels among population subgroups presented in this report have been constructed as follows.

An income index is associated with each individual based on the person's rank and share in the equivalized income distribution. Specially, it is the share of the total equivalized income received by all individuals less at risk of poverty than the person concerned. It is a relative measure, reflecting the degree of poverty risk.

With a suitable functional transformation, the above is used to define an income at-risk-of poverty index associated with each individual. This index indicates the relative situation of individuals at the micro-level; and just as in the conventional (0-1) measure, its average over individuals in a group provides an alternative measure of the poverty risk level of the group concerned.

To retain maximum comparability with the conventional measure and also to focus on socio-economic differentials within countries, the functional form and scale of the 'fuzzy' measure has been chosen such that overall, for the country as a whole, it gives exactly the same proportion in poverty risk as the conventional measure.

The above mentioned choice, of course, means that at the overall national level, the 'fuzzy' and conventional measures contain exactly the same information. However, the former measure provides a more realistic picture of the relative situation (both in terms of the level and degree of poverty risk) at the level of individual persons and of target groups within the national population.

Choices need to be made concerning the functional form of the distribution (the 'membership function') of the at-risk-of income poverty index, and how it relates to the conventional measure.

The construction of the at-risk-of income poverty index for the fuzzy analysis

The at-risk-of income poverty index (q_i) associated to each individual *i* is related to the person's rank and share in the equivalised income distribution. The model used is as follow[63]. First we construct an income index

$$V_i = \sum_{j=i+1}^{n} v_j, i = 1 \text{ to } n-1; V_n = 0 \qquad (1)$$

([63]) For a fuller description of the methodology and some empirical results, see Betti, G., and V. Verma (1998), 'Measuring the degree of poverty in a dynamic and comparative context: a multi-dimensional approach using fuzzy set theory', University of Sienna, Dipartimento di Metodi Quantitativi, Working Paper 22.

where $v_j = \frac{y_j}{\sum_{i=1}^{n} y_i}$ is the share of total equivalised income (y_j) received by individual of rank j in the ascending income distribution. V_i varies from $V_1 \cong 1$ for the poorest, to $V_n = 0$ for the richest individual. It is the share of the total equivalised income received by all individuals less at risk of poverty than the person concerned.

Corresponding to the income index, the at-risk-of income poverty index is defined as:

$$q_i = V_i^{(\alpha/H)} \quad (2)$$

As in Cheli (1995),[64] we have determined parameter α such that for the (national) population as a whole the mean of the index q, i.e. $\overline{q}$, is equal to the proportion in poverty risk (Head Count Ratio = H) according to the conventional approach. Empirically, large values of q_i tend to be concentrated at the lower end of the income distribution, making the income poverty risk index sensitive to the share of the income received by poorer sections of the population.[65]

For analysis at the level of subgroups within a country, the value of determined at the national level is used. This means that, depending on the shape of the income distribution (especially at the lower end) in the subgroup compared to the overall distribution in the country, the average 'fuzzy' poverty rate for the subgroup may differ from its conventional head-count ratio H. The former better reflects the subgroup's actual poverty risk situation.

Table A2.1 in Annex 3 reports empirically determined values (using ECHP data) of the parameter for each country in each wave, so that at the national level the population mean of the fuzzy index is equal to the proportion at risk of poverty according to the at-risk-of poverty line calculated as 60 percent of the median.

The real potential of this approach is in studying changes in the relative income poverty risk situation of individuals in the longitudinal context. It takes into account the 'distances' which individuals move up or down the income distribution, and not simply whether or not they cross some (essentially arbitrary) at-risk-of poverty line (see Chapter 5).

Longitudinal indices of income poverty risk for the fuzzy analysis

Consider a panel of individuals (j) over a period (t=1 to T) years, with $s_{j,t}$ the propensity to poverty risk of individual j at time t, as previously defined. In the conventional analysis, $s_{j,t}$ takes the dichotomous values 1 (=poor) and 0 (=non-poor). Here the measure varies in the range (1-0) determined by the level and position of the individual in the income distribution.

The individual's propensity to 'any-time poverty risk' (for at least one year over the interval) is given by the largest of the cross-sectional indices:

$$s_j^{(A)} = max\left(s_{j,t}\right) \quad t = 1 - T$$

The individual's propensity to 'persistent poverty risk' (for all the years over the interval) is the smallest of the cross-sectional indices:

$$s_j^{(P)} = min\left(s_{j,t}\right) \quad t = 1 - T$$

Transient poverty risk, i.e. for some but not all years during the interval, is by definition the difference of the above two:

([64]) Cheli B. (1995), 'Totally Fuzzy and Relative Measures in Dynamics Context', *Metron 53* (3/4), pp. 183-205.

([65]) Values of α>1 (in the range 1.7-3.1, and the majority in the range 2.1-2.6 in our data) are required to meet this condition. Note that with α = H, $\overline{q} = (1+G)/2$, where G is the Gini coefficient of the income distribution, which is typically 3-5 times larger than the Head Count Ratio H. Larger values of (help to concentrate the distribution of q_i at the lower end.

$$s_j^{(T)} = s_j^{(A)} - s_j^{(P)} = max\left(s_{j,t}\right) - min\left(s_{j,t}\right) \quad t = 1 - T$$

For a period of T=4 years, Eurostat recommends that persistent poverty risk be defined as poverty risk for at least 3 of the 4 years, including the last year. We express this as:

$$s_j^{(P-1)} = next\ min\left(s_{j,t}\right) \quad t = 1 - T$$

where *next*min stands for the next-to-the-smallest of the cross-sectional indices.

Rates of any-time, persistent, and transient poverty risk are obtained simply by averaging (with appropriate sample weights) the corresponding individual-level measures over the population of interest. For instance, the any-time at-risk-of poverty rate is:

$$\bar{s}^{(A)} = \frac{\Sigma_j w_j . s_j^{(A)}}{\Sigma_j w_j}$$

where w_j is the sample weight of person (j) and the sum is over all individuals in the population of interest. Similarly, the persistent at-risk-of poverty rate (defined as in poverty risk for at least (T-1) of the T years) is:

$$\bar{s}^{(P-1)} = \frac{\Sigma_j w_j . s_j^{(P-1)}}{\Sigma_j w_j}$$

Establishing indices of non-monetary deprivation

Putting together of categorical indicators of deprivation for individual items to construct composite indices requires decisions about assigning numerical values to the ordered categories and the weighting and scaling of the measures.

The obvious choice is to assign a value of (say) 1 to the presence and 0 to the absence of a particular item of deprivation (or equally-spaced values in the range 1-0 for ordered polytomies).

As to the weights and scaling assigned to individual items, both statistical and substantive factors have to be considered. We first considered simple measures based on the presence or count of items of deprivation. Subsequently we considered items of deprivation weighted in direct proportion to their prevalence (and scaled the lifestyle deprivation measure to be identical to the income poverty rate) separately within each country. Basically, the former provided absolute measures common across countries, and the latter purely relative measures of deprivation within each country.

In Chapter 6 an alternative, fuzzy, statistical approach was used by taking into account how the items are distributed in the population and the relationship between items in the same group (dimension of deprivation). Firstly, the weight was determined by the variable's power to 'discriminate' among individuals in the population, that is, by its dispersion measured in terms of the coefficient of variation. This means that for small proportions, the weight varies inversely to the square-root of the proportion (p). Thus deprivations which affect only a small proportion of the population, and hence are likely to be considered more critical, get larger weights; while those affecting large proportions, hence likely to be regarded less critical, get smaller weights. Note, however, that the contribution of these p individual values to the average level of deprivation in the population resulting from the item concerned turns out to be directly proportional to the square-root of the p. The second feature of this weighting approach is that it limits the influence of those characteristics that are highly correlated with the others included in the analysis. The weight of variable i in dimension k is taken as the inverse of an average measure of its correlation with all the other variables in the dimension. Thus the results are not affected by arbitrary inclusion or exclusion of items highly correlated with other items in the set. This aims to take into account the fact the specific set of items included in ECHP is but a selection from all possible items of similar types which could have been included.

It turns out that numerically, this last mentioned approach and the earlier weighting scheme give very similar results, at least for the ECHP dataset at hand. This robustness of the results against alternative choices of the weighting schemes (which of necessity must involve some subjective judgement) is reassuring.

Details of the fuzzy approach to indices of non-monetary deprivation

With reference to how the fuzzy measure was used to construct indices (and an overall index) of non-monetary deprivation, the following can be noted:

Assigning deprivation scores to individual items

All the 24 items under consideration are simple 'yes/no' dichotomies. In principle, some such items may involve more than two ordered category (such as the ECHP items on the degree of satisfaction with various aspects of life, not included in the present set). The first step is to assign numerical values to ordinal items. For dichotomies, we can assign a deprivation score of one to a household where deprivation is experienced and a score of zero where it is not. Similarly, equally spaced values in the range 1-0 can be assigned to an ordered polytomy:

$$s_{j(m)} = \frac{M-m}{M-1},$$

where individual j is scored m on M ordered categories, with m=1 the most deprived to m=M the least deprived. For a dichotomy, those lacking the item concerned are scored as 1, and those not lacking as 0, as noted above.

Composite indicators for underlying dimensions

Next, individual indicators within each major dimension (such as housing, environment, etc.) are combined to form an index describing the degree of deprivation specific to the dimension concerned. Denoting by $s_{j,di}$ the score of individual j on item i in dimension d as defined above, the individual's score averaged over items in the dimension is written as the weighted mean:

$$s_{j,d.} = \Sigma_i \left(w_{di} . s_{j,di} \right)$$

where the weights w_{di} are defined for items (i) within a given dimension or group of items (d). The set of weights are common to all individuals (j) in the population, and have been computed, separately for each country, on the basis of the following statistical considerations taking into account how the items are distributed in the population. Alternative models are possible. Furthermore, account may also be taken of substantive considerations in particular situations.

Firstly, the weight is determined by the variable's power to 'discriminate' among individuals in the population, that is, by its dispersion. We take this as proportional to the coefficient of variation. This means that for small proportions, the weight varies inversely to the square-root of the proportion (p). Thus deprivations which affect only a small proportion of the population, and hence are likely to be considered more critical, get larger weights; while those affecting large proportions, hence likely to be regarded less critical, get smaller weights. Note, however, that the contribution of these p individual values to the average level of deprivation in the population resulting from the item concerned turns out to be directly proportional to the square-root of the p. In other words, deprivations affecting a smaller proportion of the population are treated as more intense at the individual person's level but, of course, their contribution to the average level of deprivation in the population as a whole is correspondingly smaller.

From a non-redundant point of view, it is necessary to limit the influence of those characteristics that are highly correlated with the others included in the analysis. The weight of variable i in dimension k is taken as the inverse of an average measure of its correlation with all the other variables in the dimension. Thus the results are not affected by arbitrary inclusion or exclusion of items highly correlated with other items in the set.

The weights are scaled to sum to 1.0 over items in the dimension.

To surmise, the weight given to an item is directly proportional to the variability of the item in the population and inversely proportional to its correlation with other items in the dimension, and the weights are scaled to sum to 1.0 over items in the dimension:

$$\Sigma_i w_{di} = 1$$

Composite indicator of overall non-monetary or lifestyle deprivation

An overall indicator of non-monetary or lifestyle deprivation to which an individual (j) is subject is provided by a weighted average of the person's deprivation indices on the different dimensions (d):

$$s_{j,..} = \Sigma_d \left(w'_d . s_{j,d.} \right),$$

where the dimension weights w'_d are taken as proportional to a weighted (with item weights w_{di} defined above) average of coefficients of variation of items in the dimension. Again, the weights are scaled to sum to 1.0 over the dimensions:

$$\Sigma_d w'_d = 1$$

Scaling of the non-monetary or lifestyle deprivation indices

For individuals in the population, the deprivation index for individual items and, by virtue of the constraints, the index aggregated to a dimension and overall vary in the range (0-1). An index of 1.0 is obtained only if the individual lacks all the items comprising the dimension; and similarly, an overall index of 1.0 is obtained only if the individual lacks all the 24 items included in the analysis. These conditions appear to be rather extreme for defining the 'most deprived', and would tend to become even more so if the number of items included in the analysis is increased. It is more reasonable to define the 'most deprived' as those lacking a certain proportion C<1 or more of the items considered. In the results presented in the following sections, we have taken C=0.6, meaning that individuals lacking 60 percent (i.e. 15 of the 24) or more items are considered the 'most deprived'.

It should be emphasized that the particular choice of the value of parameter C is of absolutely no consequence for the resulting patterns of variation across items, dimensions, countries or population subgroups discussed in the following sections. It does, however, affect the numerical results when we contrast and combine monetary and non-monetary indices for analyzing overall deprivation in all its aspects (Chapter 7). Apart from it being 'reasonable' in our view, the particular choice C=0.6 has been made simply to scale the overall non-monetary or lifestyle deprivation index such that its average equals exactly the at-risk-of poverty rate for EU-15 as a whole.

Longitudinal indices of deprivation at the individual level

Consider a panel of individuals over a period (t=1 to T) years, with $s_{j,t}$ the non-monetary or lifestyle deprivation index of individual j at time t. Using basic results of the fuzzy-set theory, the individual's propensity to 'any-time deprivation' (for at least one year over the interval) is the largest of the cross-sectional indices:

$$s_j^{(A)} = max\left(s_{j,t} \right) \quad t = 1 - T$$

The individual's propensity to 'persistent deprivation' (for all the years over the interval) is the smallest of the cross-sectional indices:

$$s_j^{(P)} = min\left(s_{j,t} \right) \quad t = 1 - T$$

'Transient deprivation', i.e. for some but not all years during the interval, is by definition the difference of the above two:

$$s_j^{(T)} = s_j^{(A)} - s_j^{(P)} = max\left(s_{j,t} \right) - min\left(s_{j,t} \right) \quad t = 1 - T$$

For a period of T=4 years, Eurostat recommends that 'persistent' be considered deprivation for at least 3 of the 4 years, including the last year. We express this as:

$$s_j^{(P-1)} = next\ min\left(s_{j,t} \right) \quad t = 1 - T$$

where '*next*min' stands for the next-to-the-smallest of the cross-sectional indices.

The above expressions have been written for the overall deprivation index. By replacing the individual $s_{j,t}$ values with dimension-specific values, the same measures are obtained for each dimension of deprivation separately.

Longitudinal deprivation rates

Rates of any-time, persistent, transient deprivation etc are obtained simply by averaging (with appropriate sample weights) the corresponding individual-level measures over the population of interest. This may be at the country or EU level, or for subgroups within countries or the EU. Deprivation may be considered overall, or within particular dimensions.

Cross-sectional analysis: income poverty risk in combination with deprivation

Table 7.7 in Chapter 7 presents information about four types of measures, for each wave and averaged over waves 1-4:

P at-risk-of income poverty rate

D overall lifestyle deprivation rate

M manifest deprivation rate, representing the propensity to both income poverty risk and lifestyle deprivation simultaneously

L latent deprivation rate, representing the propensity to either of the two, income poverty risk or lifestyle deprivation.

The measures M and L represent the income poverty risk and lifestyle deprivation measures considered in combination.

The first measure (M) represents the individual being subject to both income poverty risk and lifestyle deprivation; one may think of this as the 'manifest' or 'more intense' degree of deprivation. The second measure (L) represents the individual being subject to at least one of the two, income poverty risk or lifestyle deprivation; one may think of this as the 'latent' or 'less intense' degree of deprivation.

Once the income poverty risk (P_i) and lifestyle deprivation (D_i) propensities have been defined at the individual level, the corresponding combined measures are obtained in a straightforward way, which can then be aggregated to produce the relevant averages and rates for the population.

The 'manifest' deprivation propensity of individual *i* is the intersection (the smaller) of the two measures P_i and D_i:

$$M_i = min\left[P_i, D_i\right]$$

Similarly, the 'latent' deprivation propensity of individual *i* is the union (the larger) of the two measures P_i and D_i:

$$L_i = max\left[P_i, D_i\right]$$

At the longitudinal level, the persistent and any-time deprivation rates for combined manifest and latent deprivation measures are computed in exactly the same way as those for the income poverty risk and lifestyle deprivation rates described in earlier sections.

Details of logistic regressions

For the analysis of entry into poverty risk in Chapter 5, two logistic regressions were carried out. Both used the 70 percent median income level for determining the at-risk-of poverty threshold and one applied dynamic covariates.

The results of the two logistic regression models display the coefficients, odds and significance levels for one-way interactions as well as transitions. These results are displayed in Tables A5.1 and A5.2 in Annex 3.

ECHP methodological summary

The information presented in this report is derived from results obtained from the European Community Household Panel (ECHP). Indicators established for individual countries using alternative data sources or methodologies may differ from the results presented in this report.

The ECHP[66] is a survey based on a **standardised questionnaire** that involves annual interviewing of a representative sample of households and individuals in each EU member state. It covers a wide range of topics such as income (earned; unearned; social transfers), health, education, housing, demography and employment. The longitudinal nature of the ECHP makes it possible to follow up and interview the same households over several consecutive years.

The annual ECHP surveys cover more than 60000 households (around 130000 adults) across Europe. The original **survey samples** were carefully designed to achieve a degree of national representativity. The general impact of attrition rates over time has been low[67].

As it is difficult to collect reliable data on current income, the ECHP collects income data for the current members of the household by reference to the preceding year (eg. 1996 income for 1997 household members). **Total household disposable income** is taken to be all monetary income received from any source by each member of the household or by the household as a whole, and includes earned income from work (employment and self-employment), private income from property and investments, plus all social transfers received directly (including old-age pensions), net of any taxes and social contributions paid. The UDB for each wave contains a full list of income and other variables[68].

There is a lengthy process of bilateral data validation, beginning with the procedures implemented by the national data units and including quality controls by Eurostat. At the end of this process, the data is approved for use by the member state.

Where necessary, missing data at detailed level is **imputed** by Eurostat using agreed methods[69]. Where applicable, this includes conversion from net to gross and vice versa.

Data collected via the ECHP is **weighted** by Eurostat using agreed methods[70] to reflect initial sample design, response rates and population structure. The calculation of weights has remained unchanged since the inception of the ECHP. However, following release of the wave 5 UDB, it has become apparent that certain extreme weights exist, and are increasing over time. It has consequently been agreed that the wave 6 UDB will include weights established using a revised methodology.

In order to reflect differences in household size and composition, the income figures are given per “equivalent adult”. In other words, the total household disposable income is divided by its equivalent size using the so-called modified-OECD **equivalence scale**. This scale gives a weight of 1.0 to the head of the household, 0.5 to other persons aged 14 and over living in the household, and 0.3 to each child. The resulting figure is attributed to each member of the household. The implicit assumption of sharing of income between household members may particularly affect the accuracy of indicators shown with a breakdown by gender.

In the various tables, a blank cell or an entry “..” or “,” indicates that data is not available for that indicator/country. This is a variation from the traditional Eurostat presentation where an “:” indicates that data is not available or that the sample size is less than 20, an entry “u” indicates that the data has low reliability (sample size between 20 and 49 or 10-20% of missing observations), and an entry “s” indicates that the figure is an estimate.

([66]) See Eurostat (1996), ‘European Community Household Panel: Methods Volume 1’, Detailed Tables, Eurostat, Luxembourg

([67]) See Eurostat (2002) ‘PAN185/02: Sample attrition between Waves 1 and 4 in the European Community Household Panel (research undertaken by ESRI)’, Working Party Document, Eurostat, Luxembourg

([68]) See Eurostat (2001) ‘PAN166/2001-12: ECHP UDB Description of variables’, UDB Document, Eurostat, Luxembourg and Eurostat (2001) ‘PAN167/2001-12: ECHP UDB Construction of variables’, UDB Document, Eurostat, Luxembourg

([69]) For details, see Eurostat (2001) ‘PAN164/2001-12: Imputation of income in the ECHP’, UDB Document, Eurostat, Luxembourg

([70]) For details, see Eurostat (2001) ‘PAN165/2001-12: Construction of weights in the ECHP’, UDB Document, Eurostat, Luxembourg

EU-15 estimates are calculated as the population weighted average of available national values. Countries representing the majority of the population in the EU have reported data for most years and the EU-15 estimate is unlikely to be significantly affected by the absence of data for missing countries.

For the **UK** there is a break in series between 1996 and 1997. Until 1996 the ECHP was used for calculations. From 1997, the national panel transformed into ECHP format is used. Converted data of this type is provisional.

With effect from 1995, sample data for **Germany** also covers the migrant population. In consequence, indicators calculated using data for 1995 and subsequent years are not consistent with indicators calculated using data for 1994. The national panel is transformed into ECHP format. Converted data of this type is provisional.

Pending the outcome of a review of information supplied concerning pensions, data for **Belgium** should be considered as provisional.

Data for **Luxembourg** is currently only available until 1996[71].

Following accession to the EU, **Austria** has supplied data with effect from 1995. **Finland** has supplied data with effect from 1996. From 1997, **Sweden** has supplied data from the national Living Conditions Survey.

Adjustment for income from **social transfers** in Finland has only been possible on a gross basis (for other countries it is done on a net basis). This has a consequent impact on the accuracy of certain indicators calculated and included in this report (see in particular chapter 8) which may not be strictly comparable. Their interpretation and the conclusions drawn from them should therefore be treated with caution.

The age group 18-24 includes many **students** in full-time education who in several member states may be living in separate households from their parents but being maintained by transfers in kind from them. Such income is not part of the income concept used to establish total household disposable income, which may affect the interpretation of indicators calculated on this measure.

In the absence of common agreement on the measurement of imputed rent of **owner-occupiers**, this is not part of the income concept used to establish total household disposable income, which may affect the interpretation of indicators based on this measure.

(71) In the wave 6 database (version December 2002), data is now available for Luxembourg.

Appendix 3: Tabulations

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Table A4.1 Values of the Parameter α for each country in each wave

	1994		1995		1996		1997	
Country	HCR	α	HCR	α	HCR	α	HCR	α
B	17	2.5	18	2.5	17	2.4	15	2.5
DK	10	2.0	12	1.9	10	2.0	8	2.0
D	17	2.6	17	2.5	16	2.3	15	2.2
EL	23	2.6	22	2.4	21	2.4	23	2.3
E	20	2.4	20	2.4	19	2.7	20	2.6
F	16	2.4	16	2.1	17	2.0	16	2.1
IRL	18	2.2	19	2.1	19	2.1	20	2.0
I	21	2.5	20	2.4	19	2.4	19	2.5
L	16	2.3	12	2.3	12	2.2		
NL	10	2.5	11	2.7	12	2.7	11	2.3
A			13	2.2	14	2.1	13	2.1
P	23	2.7	23	2.5	22	2.5	24	2.3
FIN					8	2.0	8	2.1
S							9	2.2
UK	20	2.2	21	2.2	20	2.2	22	2.2

Table A4.2 At-risk-of poverty rate by individual social position (60% of the Median)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Gender																
Men	13	7	13	22	19	16	19	18	12	10	11	22	8	9	19	15
Women	17	8	16	23	20	17	21	19	12	11	14	26	8	9	24	16
Age																
<18	17	3	24	21	25	20	27	22	18	15	15	30	6	9	30	19
18-24	21	17	15	22	22	26	18	26	15	27	11	18	21	29	27	21
25-34	7	7	12	17	17	12	10	18	9	11	10	16	8	11	16	12
35-44	10	2	11	15	19	11	18	17	9	8	10	19	6	7	15	12
45-54	15	3	8	19	18	12	17	17	10	6	9	18	6	5	11	12
55-64	14	6	15	26	18	16	14	17	11	6	11	23	5	4	13	13
>=65	21	22	14	36	15	18	23	15	9	4	22	37	8	6	31	19
Citizenship																
EU-citizenship	13	9	11	23	18	14	16	17	10	9	12	22	8	9	19	14
foreign citizenship	33	4	23	(26)	(35)	55	,	(7)	20	(28)	25	,	31	28	36	28
Education																
high	6	3	5	5	7	5	2	4	3	3	7	1	4	12	11	5
middle	9	9	11	12	11	10	9	10	5	9	9	11	10	8	17	10
low	21	15	17	33	22	21	24	21	13	12	20	25	10	9	26	19
Social class																
never worked	33	23	29	26	28	29	31	30	17	25	27	35	23	,	50	29
Managers and proprietors	3	1	,	4	3	4	1	4	,	1	2	2	1	,	1	2
White collar employees	4	6	5	3	4	4	5	3	3	6	5	4	6	,	10	5
Self employed with employees	13	11	,	12	15	23	11	18	13	26	17	15	8	8	12	14
Self employed no employees	15	7	9	20	26	22	18	28	,	14	22	29	13	30	22	20
Farmers and smallholders	(45)	28	,	51	30	26	14	29	,	19	30	50	14	44	,	30
Manual workers	13	6	11	20	18	14	19	15	13	11	10	18	9	30	22	15
Employment precarity of individual																
>= 6 months unemployed	32	1	40	37	38	42	46	51	,	,	38	35	17	,	54	36
<6 monts unemployed	16	12	17	22	19	25	14	21	,	19	11	22	17	21	29	19
experience of unemployment last 12 months	19	5	23	35	28	22	27	33	,	,	11	24	8	,	31	22
experience of unemployment in past 5 years	5	5	8	12	14	12	8	13	13	9	9	16	4	7	8	9
Never unemployed	4	3	5	14	9	6	6	10	6	4	7	16	3	5	7	7
Inactive	20	19	17	30	19	21	23	18	13	12	18	32	12	14	31	20
national average (= 100)	**15**	**8**	**15**	**23**	**20**	**16**	**20**	**19**	**12**	**11**	**13**	**24**	**8**	**9**	**22**	**15**

Table A4.3 At-risk-of poverty rate by the social position of the household (60% of the Median)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Single person households																
Male under 30	,	41	34	,	,	27	,	,	,	54	29	,	47	38	46	39
Male aged 30-64	11	8	16	6	15	13	33	14	6	3	16	25	13	11	9	13
Male aged 65 or more	19	24	11	19	5	22	34	16	,	2	10	42	9	9	40	19
Female under 30	,	56	36	,	,	38	,	,	,	58	(24)	,	42	47	44	46
Female aged 30-64	19	11	22	23	15	11	27	19	17	7	22	33	10	8	26	18
Female aged 65 or more	25	27	27	41	9	28	66	24	15	5	36	53	19	10	52	29
Adults without children																
2 adults, at least one >= 65	20	17	8	36	18	14	8	13	9	4	18	39	3	4	19	15
2 adults <65	9	2	8	17	15	10	8	10	8	6	5	21	7	5	7	9
> 2 adults	6	3	5	16	13	10	3	14	2	5	6	14	6		7	8
Households with children																
Single parents with 1+ child	30	9	47	24	30	33	41	25	26	44	28	40	9	12	66	31
2 adults + 1 child	6	0	8	13	15	8	14	14	8	7	11	12	4	5	13	9
2 adults + 2 children	12	3	11	14	21	9	12	20	9	7	8	13	4	5	17	11
2 adults + 3+ children	20	6	55	26	33	31	37	30	22	18	24	58	8	11	36	28
> 2 adults with children	23	0	10	37	25	31	19	28	17	16	12	28	4		16	19
Household's Educational Attainment																
all adults high	11	5	24	4	4	8	5	21	5	6	12	5	4	12	15	9
at least one adult high	6	2	4	9	9	8	3	5	4	2	5	1	4	6	12	5
all adults middle	11	10	14	11	9	10	13	10	5	12	10	8	12	8	32	12
at least one adult middle	11	6	7	24	17	14	14	16	6	11	12	21	6	5	16	12
all adults low	29	19	29	38	28	31	37	26	21	18	29	28	12	13	36	26
Work intensity in household																
none	39	14	40	36	44	44	64	31	31	,	31	47	19	,	50	38
<25%	43	21	46	45	33	41	33	64	(73)	,	32	36	17	,	73	40
25-50%	9	17	27	38	24	30	20	27	7	,	17	30	13	,	41	23
50-75%	8	4	16	17	15	17	11	15	10	,	9	26	4	,	18	13
75-100%	2	0	5	13	6	14	4	9	,	,	8	7	3	,	10	7
full	3	3	4	12	5	4	3	5	7	,	7	16	3	,	7	6
national average (= 100)	**15**	**8**	**15**	**23**	**20**	**16**	**20**	**19**	**12**	**11**	**13**	**24**	**8**	**9**	**22**	**15**

Table A4.4 At-risk-of poverty rates by individual social position (50% of the Median)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Gender																
Men	9	4	6	16	13	9	9	13	5	6	7	14	3	5	14	9
Women	11	4	9	17	14	10	9	13	6	7	8	16	3	4	17	10
Age																
<18	12	2	8	16	19	12	14	16	9	8	9	19	2	4	23	11
18-24	17	11	11	15	16	18	8	19	9	19	9	11	12	21	23	15
25-34	5	5	7	13	12	6	6	14	4	6	5	8	4	7	11	7
35-44	7	2	5	11	15	6	10	13	4	5	6	13	3	4	12	8
45-54	10	1	5	14	13	7	7	11	5	4	6	12	2	3	9	7
55-64	9	4	10	19	12	8	6	11	5	4	7	17	2	2	10	8
>=65	11	6	8	27	6	11	5	9	5	2	11	23	2	1	19	10
Citizenship																
EU-citizenship	8	5	7	17	12	8	7	12	5	5	7	14	4	5	13	9
foreign citizenship	24	2	12	(26)	(34)	37	,	(7)	11	(25)	12	,	11	14	28	17
Education																
high	4	2	3	3	4	3	1	4	1	2	3	1	2	9	8	3
middle	6	6	7	9	8	5	4	7	3	6	6	6	5	4	12	6
low	12	5	11	24	15	12	10	14	6	7	12	16	3	4	18	11
Social class																
never worked	20	13	18	17	17	18	13	21	9	18	17	24	11		41	18
Managers and proprietors	2	1	,	1	3	4	1	3	,	0	1	1	1	4	1	2
White collar employees	3	3	4	2	3	3	2	2	2	4	3	2	2	,	6	3
Self employed with employees	11	7	,	7	12	13	4	14	9	6	12	9	3	5	9	9
Self employed no employees	7	5	7	14	22	13	10	22	,	9	8	14	7	22	17	12
Farmers and smallholders	(39)	23	,	42	22	16	5	22	,	12	23	38	5	35	,	22
Manual workers	8	3	5	15	12	7	9	10	5	6	6	10	5	23	15	9
Employment precarity of individual																
>= 6 months unemployed	24	0	27	32	27	32	27	42	,	,	25	31	7	,	42	26
<6 monts unemployed	10	8	10	16	12	13	2	18	,	10	8	11	9	10	21	11
experience of unemployment last 12 months	16	4	10	30	21	13	13	27	,	,	8	12	5	,	26	15
experience of unemployment in past 5 years	2	3	4	6	10	3	1	8	8	4	4	8	2	4	5	5
Never unemployed	2	2	3	10	7	3	3	7	3	2	4	10	2	3	5	4
Inactive	12	8	10	22	11	12	9	12	6	8	10	21	4	8	21	12
national average (= 100)	**10**	**4**	**8**	**17**	**14**	**10**	**9**	**13**	**6**	**6**	**8**	**15**	**3**	**5**	**16**	**9**

Table A4.5 At-risk-of poverty rates by the social position of the household (50% of the Median)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Average
Single person households																
Male under 30	,	36	23	,	,	22	,	,	,	41	17	,	30	31	38	30
Male aged 30-64	6	5	9	6	12	9	21	12	2	1	7	24	7	9	6	9
Male aged 65 or more	10	8	3	18	1	14	3	4	,	2	2	33		1	26	10
Female under 30	,	44	30	,	,	30	,	,	,	37	(20)	,	32	40	35	35
Female aged 30-64	14	7	13	14	11	4	7	13	12	4	14	28	4	3	19	11
Female aged 65 or more	12	8	17	32	6	17	14	11	9	4	16	42	3	2	36	15
Adults without children																
2 adults, at least one >= 65	9	4	4	26	4	8	4	9	4	2	11	21	1	1	10	8
2 adults <65	7	1	5	12	11	6	4	8	4	4	4	17	2	3	6	6
> 2 adults	4	0	3	11	8	7	1	10		4	4	10	2		6	5
Households with children																
Single parents with 1+ child	14	3	38	19	24	22	34	20	24	23	17	29	4	5	56	22
2 adults + 1 child	4	0	6	8	11	4	4	10	1	4	6	8	1	2	9	5
2 adults + 2 children	9	2	7	10	15	4	7	14	4	4	3	11	2	2	13	7
2 adults + 3+ children	17	2	10	16	25	22	21	18	12	8	16	44	1	4	25	16
> 2 adults with children	19		2	30	19	16	6	21	6	11	8	13	2		13	13
Household's Educational Attainment																
all adults high	8	2	8	3	3	6	3	14	4	4	3	5	2	9	11	6
at least one adult high	4	1	3	5	6	2	2	4		2	3	0	0	2	8	3
all adults middle	7	7	9	8	7	6	7	7	3	7	6	6	6	4	26	8
at least one adult middle	6	2	3	18	12	7	5	11	5	6	8	6	3	2	10	7
all adults low	19	7	17	28	19	20	18	18	9	10	16	19	4	6	27	16
Work intensity in household																
none	29	10	32	24	33	32	42	23	15	,	22	34	7	,	43	27
<25%	32	17	28	39	23	36	14	55	(49)	,	12	32	10	,	67	30
25-50%	7	7	9	32	17	17	8	20	5	,	9	15	6	,	35	14
50-75%	4	4	4	11	11	8	3	9	4	,	5	15	1	,	10	7
75-100%	1	0	3	11	5	3	2	6	,	,	6	6	2	,	8	4
full	2	1	2	9	4	2	1	4	3	,	5	11	2	,	5	4
national average (= 100)	**10**	**4**	**8**	**17**	**14**	**10**	**9**	**13**	**6**	**6**	**8**	**15**	**3**	**5**	**16**	**9**

Table A5.1 Logistic regression model to predict entry to poverty risk status at the 70% of median level (n= 195,871)

Variable	B	Odds	Sig
	Country		
NL	0.56	1.75	***
B	0.66	1.93	***
L	0.51	1.67	***
F	0.66	1.93	***
IRE	0.61	1.84	***
I	1.19	3.29	***
EL	1.23	3.42	***
E	1.01	2.74	***
P	0.84	2.32	***
A	0.78	2.18	***
D	0.43	1.54	***
UK	0.85	2.34	***
	Year		
Year	0.03	1	n.s
	Gender (reference group: male) *		
Female	0.10	1.10	***
	Age Group (reference group: 45-54) *		
17-24	0.66	1.93	***
25-34	-0.04	1	n.s
35-44	-0.10	0.90	**
55-64	0.12	1.13	***
65+	0.48	1.62	***
	Labour Force Status (reference group: Working) *		
Unemployed	0.81	2.24	***
Inactive	0.33	1.39	***
	Household size		
Number Adults	0.00	1	n.s
Number Children	0.33	1.39	***
	Change in household size		
Change in N Adults	0.11	1.12	***
Change in N Children	0.09	1.09	**
	Change in Employment Status		
Emp - Unemp	1.20	3.32	***
Emp - Inact	0.56	1.74	***
Une - In/In - Une	0.35	1.42	***
Inact/Unemp - Emp	0.05	1.00	n.s
	Change in Dependency on Social Welfare		
Both Dep	1.17	3.21	***
Into Dep	2.03	7.63	***
Out of Dep	0.91	2.49	***
Constant	-1.81		***

* of head of household
significances: >=0.05 n.s, <0.001***, <0.01**,<0.05 *
Mc Faddens R^2 = 0.080, df = 32

Table A5.2 Logistic regression model to predict exit from poverty risk status at the 70% of median level (n= 65,520)

Variable	B	Odds	Sig
	Country		
NL	-0.25	0.78	***
B	-0.35	0.70	***
L	-0.73	0.48	***
F	-0.80	0.45	***
IRE	-0.54	0.58	***
I	-0.88	0.42	***
EL	-0.98	0.38	***
E	-0.55	0.58	***
P	-1.12	0.33	***
A	-0.56	0.57	***
D	-0.65	0.52	***
UK	-0.54	0.58	***
	Year		
Year	-0.13	0.88	***
	Gender (reference group: male)*		
Female	-0.05	1	n.s
	Age Group (reference group: 45-54)*		
17-24	-0.04	1.00	n.s
25-34	0.20	1.22	***
35-44	0.07	1.07	**
55-64	-0.07	1.00	n.s
65+	-0.61	0.54	***
	Labour Force Status (reference group: Working) *		
Unemployed	-0.58	0.56	***
Inactive	-0.52	0.59	***
	Household size		
Number Adults	0.06	1.06	***
Number Children	-0.25	0.78	***
	Change in household size		
Change in N Adults	0.03	1	n.s
Change in N Children	-0.12	0.88	***
	Change in Employment Status		
Emp - Unemp	-0.51	0.60	***
Emp - Inact	-0.22	0.80	***
Une - In/In - Une	0.19	1.21	**
Inact/Unemp - Emp	0.40	1.49	***
	Change in Dependency on Social Welfare		
Both Dep	-1.23	0.29	***
Into Dep	-0.69	0.50	***
Out of Dep	0.49	1.64	***
Constant	-0.48	0.62	***

* of head of household
significances: >=0.05 n.s, <0.001***, <0.01**,<0.05 *
Mc Faddens R^2 = 0.074, df = 32

Table A6.1 Distribution of negative outcomes among life style indicators in EU Member States, 1997

	B	DK	D*	EL	E	F	IRL	I	L*	NL	A	P	FIN	S	UK*
POSSESSION OF:															
A CAR OR VAN (FOR PRIVATE USE)	7	10	10	18	14	4	14	3	3	5	6	23	7		10
COLOUR TV	1	0	0	2	0	1	1	1	0	0	1	5	1		1
A VIDEO RECORDER	4	2	7	19	12	6	7	8	4	3	7	28	5		3
A MICRO WAVE	6	5	8	25	19	6	11	11	5	3	8	43	4		3
A DISHWASHER	11	7	14	38	29	11	25	19	6	4	17	48	8		16
A TELEPHONE	1	1	1	3	6	1	9	3	0	0	2	15	2		4
DOES THE DWELLING HAVE:															
BATH OR SHOWER ?	2	1	1	3	1	2	2	1	1	1	2	10	2	1	0
INDOOR FLUSHING TOILET ?	2	0	1	4	1	2	1	1	1	0	3	9	2		0
HOT RUNNING WATER ?	2	0	3	71	2	1	2	2	2	0	1	15	2		0
NOISE FROM NEIGHBOURS OR OUTSIDE ?	26	16	36	23	33	25	15	37	20	32	24	24	24		27
SHORTAGE OF SPACE ?	14	15	13	29	27	15	19	20	9	11	15	33	18		22
NOT ENOUGH LIGHT ?	8	3	5	9	17	9	4	11	5	5	6	19	6		8
LEAKY ROOF ?	5	3	3	14	11	4	4	5	4	3	4	17	3		3
DAMP WALLS, FLOORS, FOUNDATIONS ETC. ?	12	5	7	16	23	16	10	4	8	10	10	37	4		18
ROT IN WINDOW FRAMES OR FLOORS ?	7	4	4	7	6	11	8	5	4	9	5	29	3		10
IS THERE ANY POLLUTION, GRIME OR OTHER…?	12	8	13	17	13	16	9	23	13	12	7	19	18		13
IS THERE CRIME OR VANDALISM IN THE AREA ?	18	10	11	10	19	21	15	20	11	19	6	21	19	11	25
CAN THE HOUSEHOLD AFFORD:															
KEEPING ITS HOME ADEQUATELY WARM?	3	2	1	40	50	6	7	19	3	2	2	65	5		7
PAYING FOR A WEEK'S ANNUAL HOLIDAY AWAY FROM HOME?	21	14	14	54	49	32	36	39	18	12	23	64	44		34
REPLACING ANY WORN-OUT FURNITURE?	27	20	24	82	54	34	22	62	18	18	41	73	41		34
BUYING NEW, RATHER THAN SECOND-HAND, CLOTHES?	7	3	14	30	10	9	8	15	6	11	9	41	16		12
EATING MEAT, CHICKEN OR FISH EVERY SECOND DAY, IF WANTED?	3	1	4	30	2	4	3	6	4	2	6	7	7		6
HAVING FRIENDS OR FAMILY FOR DRINK OR MEAL AT LEAST ONCE A MONTH?	10	4	12	43	12	11	13	17	7	7	11	19	16		11
HAS THE HOUSEHOLD BEEN UNABLE TO PAY SCHEDULED:															
RENT FOR THE ACCOMMODATION DURING THE PAST 12 MONTHS?	3	1	2	6	1	5	5	2	1	2	1	3	7	4	5
UTILITY BILLS, SUCH AS ELECTRICITY, WATER, GAS DURING THE PAST 12 MONTHS?	6	2	2	30	5	9	8	5	4	2	1	3	11		8
HIRE PURCHASE INSTALMENTS OR OTHER LOAN REPAYMENTS DURING THE PAST 12 MONTHS?	3	2	1	2	5	3	4	2	2	1	1	2	5		3

Source ECHP.
* Data for Germany, Luxembourg and United Kingdom refer to 1996.

Table A6.2: Weights of the 24 Life style indicators, in the EU Countries, 1997

	B	DK	D*	EL	E	F	IT	IRL	L*	NL	A	P	FIN	UK*
D1: CAN THE HOUSEHOLD AFFORD:														
KEEPING ITS HOME ADEQUATELY WARM?	0.16	0.16	0.19	0.15	0.09	0.18	0.14	0.17	0.15	0.18	0.20	0.05	0.30	0.19
PAYING FOR A WEEK'S ANNUAL HOLIDAY AWAY FROM HOME?	0.12	0.11	0.12	0.11	0.08	0.11	0.10	0.11	0.12	0.11	0.10	0.05	0.11	0.10
REPLACING ANY WORN-OUT FURNITURE?	0.11	0.10	0.10	0.05	0.08	0.10	0.07	0.11	0.12	0.11	0.09	0.04	0.11	0.10
BUYING NEW, RATHER THAN SECOND-HAND, CLOTHES ?	0.13	0.13	0.11	0.17	0.17	0.14	0.14	0.14	0.13	0.11	0.12	0.10	0.15	0.14
EATING MEAT, CHICKEN OR FISH EVERY SECOND DAY, IF WANTED?	0.17	0.17	0.15	0.18	0.22	0.17	0.18	0.18	0.13	0.17	0.14	0.25	0.19	0.16
HAVING FRIENDS OR FAMILY FOR DRINK OR MEAL AT LEAST ONCE A MONTH?	0.13	0.13	0.12	0.14	0.15	0.14	0.14	0.15	0.13	0.13	0.12	0.16	0.15	0.14
HAS THE HOUSEHOLD BEEN UNABLE TO PAY SCHEDULED RENT, UTILITY BILLS OR HIRE PURCHASE INSTALMENTS?	0.17	0.21	0.21	0.20	0.21	0.16	0.23	0.15	0.23	0.19	0.24	0.34	.	0.16
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
D2: POSSESSION OF:														
A CAR OR VAN (FOR PRIVATE USE)	0.15	0.15	0.15	0.16	0.18	0.18	0.19	0.14	0.17	0.15	0.18	0.16	0.17	0.17
COLOUR TV	0.22	0.18	0.22	0.23	0.27	0.20	0.19	0.26	0.20	0.19	0.19	0.27	0.16	0.15
A VIDEO RECORDER	0.14	0.15	0.14	0.13	0.14	0.15	0.14	0.16	0.12	0.15	0.15	0.14	0.14	0.16
A MICRO WAVE	0.15	0.16	0.14	0.14	0.12	0.14	0.15	0.14	0.11	0.14	0.15	0.12	0.16	0.17
A DISHWASHER	0.16	0.17	0.13	0.11	0.11	0.15	0.14	0.14	0.13	0.17	0.19	0.19	0.18	0.16
A TELEPHONE	0.17	0.19	0.22	0.22	0.18	0.20	0.19	0.15	0.27	0.19	0.19	0.19	0.18	0.16
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
D3: DOES THE DWELLING HAVE:														
BATH OR SHOWER ?	0.32	0.32	0.31	0.41	0.32	0.31	0.31	0.32	0.30	0.34	0.31	0.33	0.35	0.31
INDOOR FLUSHING TOILET ?	0.36	0.33	0.33	0.41	0.35	0.35	0.34	0.33	0.38	0.34	0.34	0.34	0.32	0.30
HOT RUNNING WATER ?	0.32	0.36	0.36	0.18	0.33	0.34	0.35	0.35	0.32	0.32	0.34	0.33	0.33	0.39
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
D4: LEAKY ROOF ?	0.36	0.36	0.34	0.32	0.34	0.37	0.33	0.37	0.34	0.36	0.37	0.38	0.38	0.37
DAMP WALLS, FLOORS, FOUNDATIONS ETC. ?	0.31	0.32	0.32	0.30	0.29	0.30	0.33	0.30	0.33	0.32	0.31	0.29	0.31	0.31
ROT IN WINDOW FRAMES OR FLOORS ?	0.33	0.32	0.34	0.39	0.38	0.33	0.35	0.33	0.33	0.32	0.33	0.33	0.32	0.32
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
D5:NOISE FROM NEIGHBOURS OR OUTSIDE ?	0.16	0.16	0.14	0.17	0.15	0.16	0.15	0.17	0.17	0.14	0.17	0.18	0.16	0.16
SHORTAGE OF SPACE ?	0.21	0.19	0.21	0.19	0.21	0.22	0.22	0.22	0.18	0.21	0.20	0.19	0.21	0.19
NOT ENOUGH LIGHT ?	0.23	0.24	0.24	0.25	0.24	0.25	0.26	0.23	0.22	0.26	0.22	0.22	0.26	0.24
IS THERE ANY POLLUTION, GRIME OR OTHER…?	0.21	0.19	0.19	0.19	0.20	0.19	0.18	0.19	0.18	0.20	0.21	0.20	0.18	0.22
IS THERE CRIME OR VANDALISM IN THE AREA ?	0.19	0.21	0.22	0.21	0.20	0.18	0.20	0.19	0.24	0.19	0.20	0.21	0.19	0.18
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Source ECHP.
* Data for Germany, Luxembourg and United Kingdom refer to 1996.

Table A6.3 Weights of the 5 Life style dimensions, in the EU Countries, 1997

	B	DK	D*	EL	E	F	IT	IRL	L*	NL	A	P	FIN	UK*
D1	0.20	0.23	0.21	0.09	0.19	0.19	0.16	0.21	0.15	0.17	0.21	0.17	0.18	0.16
D2	0.26	0.29	0.25	0.32	0.24	0.28	0.33	0.29	0.32	0.34	0.28	0.23	0.30	0.26
D3	0.15	0.12	0.18	0.13	0.19	0.15	0.16	0.13	0.18	0.11	0.14	0.15	0.13	0.20
D4	0.17	0.14	0.17	0.16	0.15	0.16	0.16	0.15	0.14	0.16	0.15	0.13	0.17	0.18
D5	0.22	0.22	0.20	0.29	0.23	0.22	0.19	0.21	0.22	0.22	0.22	0.33	0.23	0.21
	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Source ECHP.
* Data for Germany, Luxembourg and United Kingdom refer to 1996.

Table A7.1a Rates for at-persistent-risk-of poverty and deprivation at the 60% line (figure 7.9)

	% at-persistent-risk of poverty	%deprived
B	11	8
DK	4	2
D	10	10
EL	15	8
E	11	10
F	10	7
IRL	13	10
I	10	7
L	8	9
NL	6	5
A	9	8
P	16	12
UK	13	15

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in last wave and 2 out of the preceeding 3 survey years, A,L,D,UK: last wave and 1 out of the preceeding 2.

Table A7.1b Rates for at-persistent-risk-of poverty and deprivation at the 60% Line (old definition)

	% at-persistent-risk of poverty	%deprived
B	13	8
DK	5	2
D	13	13
EL	16	8
E	13	10
F	12	7
IRL	16	10
I	12	7
L	10	11
NL	8	5
A	11	8
P	18	12
UK	16	19

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in 3 out of 4 survey years, A,L,D,UK: 2 out of 3 years

Table A7.2a Persistent deprivation by persistent risk-of-poverty at the 60% line by country (figure 7.10)

	% overlap
B	39
DK	5
D	38
EL	26
E	32
F	32
IRL	36
I	31
L	38
NL	27
A	22
P	35
UK	44

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in last wave and 2 out of the preceeding 3 survey years, A,L,D,UK: last wave and 1 out of the preceeding 2.

Table A7.2b Persistent deprivation by persistent risk-of-poverty at the 60% line by country (old definition)

	% overlap
B	35
DK	5
D	42
EL	26
E	34
F	29
IRL	33
I	31
L	41
NL	27
A	22
P	34
UK	50

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in 3 out of 4 survey years, A,L,D,UK: 2 out of 3 years

Table A7.3a Percent experiencing economic strain when at persistent-risk of poverty or deprivation by country at the 60% line (figure 7.15)

	% at-persistent-risk of poverty	% persistent deprivation
B	31	54
DK	27	72
D	22	37
EL	88	93
E	69	63
F	44	72
IRL	61	75
I	49	65
L	34	49
NL	39	68
A	39	59
P	70	82
UK	39	67

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in last wave and 2 out of the preceeding 3 survey years, A,L,D,UK: last wave and 1 out of the preceeding 2.

Table A7.3b Percent experiencing economic strain when at persistent-risk of poverty or deprivation by country at the 60% line (old definition)

	% at-persistent-risk of poverty	% persistent deprivation
B	30	54
DK	24	72
D	19	32
EL	87	93
E	68	63
F	41	72
IRL	58	75
I	48	65
L	29	42
NL	37	68
A	39	59
P	68	82
UK	36	60

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in 3 out of 4 survey years, A,L,D,UK: 2 out of 3 years

Table A7.4a Extent of economic strain when at-persistent-risk of poverty by persistent deprivation (figure 7.16)

	% not persistently deprived	% persistently deprived
B	26	39
DK	25	50
D	6	47
EL	84	99
E	59	91
F	31	74
IRL	49	84
I	37	75
L	27	47
NL	29	67
A	32	65
P	59	89
UK	19	63

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in last wave and 2 out of the preceeding 3 survey years, A,L,D,UK: last wave and 1 out of the preceeding 2.

Table A7.4b Extent of economic strain when at-persistent-risk of poverty by persistent deprivation (old definition)

	% not persistently deprived	% persistently deprived
B	25	40
DK	23	50
D	6	37
EL	83	98
E	59	85
F	28	74
IRL	47	81
I	36	76
L	20	43
NL	27	64
A	32	63
P	57	89
UK	17	56

definition of persistent poverty risk/deprivation: at-risk-of poverty/deprivation in 3 out of 4 survey years, A,L,D,UK: 2 out of 3 years

Table A8.1. Number of transfer recipients (individuals, unweighted) and sample size, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU
sample size	7,820	6,167	15,688	13,328	17,838	15,632	9,711	19,834	2,572	12,474	8,683	14,350	10,853	12,552	12,148	177,078
any transfer	6,870	5,195	13,158	6,954	10,432	12,466	8,566	9,771	2,239	10,120	7,633	12,517	10,081	10,982	9,713	134,458
pensions	1,831	1,097	3,284	5,468	6,278	3,794	2,238	7,351	631	2,122	3,144	5,644	3,650	3,400	2,854	52,155
non-pension	5,579	4,575	10,921	2,640	5,921	9,961	7,732	3,909	1,838	8,456	6,232	9,252	9,226	9,185	8,051	101,640
unemployment-related	1,697	1,295	2,985	762	2,796	2,434	2,482	972	71	1,246	1,167	951	3,850	2,989	686	26,312
family-related	4,773	3,104	9,295	1,348	670	6,832	6,352	1,156	1,674	6,687	5,351	7,781	6,301	6,523	6,182	72,355
sickness and invalidity	914	652	628	523	2,191	1,642	957	1,655	249	1,288	847	1,671	2,819	2,801	1,753	20,341
education related	431	775	314	22	99	920	596	235	92	671	456	460	1,894	1,915	767	9,555
social assistance	84	321	517	193	169	542	1,599	123	30	433	77	72	1,007	822	..	5,959
housing allowance	65	709	898	98	117	3,896	120	108	507	532	576	31	1,654	2,612	811	12,227
other	195	234	..	168	938	414	897	127	52	..	141	427	353	42	1,209	5,145

Source ECHP.
* Data for Luxembourg refer to 1996.

Appendix 4: List of graphs and tables in main text

List of graphs in main text

List of tables in main text