Chapter 2

Social trends and dynamics of poverty and exclusion[1]

1. Introduction

Poverty and social exclusion have increased in many Member States since the crisis began in 2008 and have been associated with a diminished cushion effect from automatic stabilisers (see Chapter 3) and growing divergences between Member States. This raises greater concerns than ever about the social consequences for individuals and society at large – in particular, the risk of people becoming permanently stuck in poverty, or more generally excluded from participation in society and economic activity[2].

The chapter shows that poverty and social exclusion are on the rise – and deepening – in many Member States, especially for certain groups of the population, increasing risks of greater long-term exclusion. It shows that an in-depth understanding of what can be done to address and prevent poverty and long-term exclusion needs to take into account its dynamic nature and demonstrates that the risks of entering into or the chances of getting out of poverty vary across Member States. Evidence-based profiling of the different population subgroups facing poverty or social exclusion suggests that individuals trapped in poverty for a longer period and living in persistent poverty have a specific profile compared to those experiencing shorter (despite possibly recurring) poverty spells.

The chapter starts by examining developments in the extent and depth of poverty and social exclusion since the crisis began, with special attention paid to its multi-dimensional nature, the diverging impacts across Member States and population segments, and the wider social risks that arise. The second part of the chapter considers the dynamics and persistence of poverty and material deprivation. This includes an examination of the factors and pathways that determine the transitions in or out of these situations, together with the trajectories towards these states. Finally, the chapter briefly examines the wider social consequences of poverty and exclusion, focusing on the cost for individuals, households and society at large. In this context, it provides a review of the debate on the development of a social investment approach, as a potential complement to existing approaches to help avoid long-term poverty and social exclusion.

The analysis reported in the chapter is mainly based on detailed analysis of the EU Statistics on Income and Living Conditions (EU-SILC) instrument. As the most recent SILC data relate to the year 2011, it is complemented by more recent sources whenever possible. The data used for the dynamic approach relate to the time period 2006-2009.

2. Developments in poverty and social exclusion since the crisis

This section explores, on the basis of cross-sectional data, the developments in the population at-risk-of-poverty or exclusion and its components (Box 1), with a particular emphasis on how recent trends vary between Member States and subgroups of their populations[3]. It also examines, not just the extent of the problem, but also developments in its severity, including through a focus on specific issues such as financial stress, extreme deprivation, and developments in the population experiencing various combinations of poverty, deprivation and very low work intensity. This makes it possible to identify who has been most adversely affected by the crisis.

(1) By Céline Thevenot, Paul Minty, Alexander Willen, Céline Ferré.

(2) It should be noted that, even during the years before the economic crisis, poverty and exclusion were at persistently high levels.

(3) For a more detailed review of social developments since the crisis began, see for example the 2011 report of the EU Social Protection Committee entitled 'Third Report on the Social Impact of the Economic Crisis and Ongoing Fiscal Consolidation' (http://register.consilium.europa.eu/pdf/en/12/st05/st05858-ad01.en12.pdf).

Box 1: Poverty and social exclusion: current definition and scope for improvement

Poverty and social exclusion in the European process

Since the mid-90s, EU documents have referred to 'poverty and social exclusion' together, and a common understanding has emerged that is wide enough to cover the national variations in the use of the concept. Among the advantages of this approach are:

- it recognises that there are concerns about people's lives that go beyond just the satisfaction of their basic needs;
- it emphasizes the multiple dimension of exclusion which goes beyond the lack of income;
- it emphasizes the temporal and dynamic dimensions of the phenomenon that call for solutions that allow people to escape from poverty on a lasting basis;
- it considers that situations of poverty and social exclusion are relative in time and space.

The European poverty target for 2020

In June 2010, the EU heads of States and Governments agreed on a poverty and social exclusion target as part of the Europe 2020 agenda under which they committed themselves to reducing poverty and social exclusion in the EU by at least 20 million people by 2020 (compared to the situation in 2008). This target is one of three integrated objectives (along with employment and education) which are intended to contribute to inclusive growth, defined as '*building a cohesive society in which people are empowered to anticipate and manage change and consequently to actively participate in society and the economy*'.

The population living at-risk-of-poverty-or-social exclusion is identified as belonging to one or more of the following categories:

- *people at-risk-of-poverty after social transfers* (people with an equivalised[1] disposable income below the at-risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income (after social transfers));
- *severely materially deprived people* (people having living conditions severely constrained by a lack of resources, namely they experience at least 4 out of 9 key aspects of deprivation[2]);
- *people living in households with very low work intensity* (people aged 0-59 living in households where the adults worked less than 20% of their total work potential during the past year).

The population at-risk-of-poverty or exclusion (hereafter referred to as AROPE) is estimated on the basis of the above three components[3], and is the reference population for the analysis reported in this chapter. While it is a very broad definition, it reflects the multiple facets of poverty and exclusion across Europe and extends the original concept of relative income poverty to cover the non-monetary dimension of poverty and labour market exclusion. By recognising the multi-dimensional approach to fighting poverty and social exclusion, it allows us to take account of the diversity of situations and priorities across the EU.

Toward better measures of exclusion: fully reflecting the multi-dimensional nature of poverty and social exclusion

Throughout this chapter the basic reference point is the Europe 2020 target population of those at-risk-of-poverty-or-social exclusion. This allows the current analysis to be conducted on a comparable basis across countries, while recognising that further information on exclusion needs to be incorporated in order to provide a more comprehensive coverage of the phenomenon. In the sections that address dynamic aspects, however, the coverage is limited to those at-risk-of-poverty or material deprivation since the required data is not yet available on a longitudinal basis to examine all components of the poverty and social exclusion indicator.

Such data limitations have been fully recognised by the EU's Social Protection Committee in its contribution to the preparation of the Europe 2020 strategy, where it has highlighted the need to work further on indicators in order to fully reflect the multi-dimensional nature of poverty and social exclusion and to better assess the role and effectiveness of the policies that are mobilised to combat them.

The debate on what social exclusion means

The EU defines social exclusion[4] as a process whereby certain individuals are pushed to the edge of society and prevented from participating fully by virtue of their poverty, or lack of basic competencies and lifelong learning opportunities, or as a result of discrimination. This distances them from job, income and education and training opportunities, as well as social and community networks and activities. They have little access to power and decision-making bodies and thus often feel powerless and unable to take control over the decisions that affect their day to day lives.

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(1) 'Equivalised income': In order to reflect differences in household size and composition, the total household income is divided by the number of 'equivalent adults' using a standard (equivalence) scale, the so-called 'modified OECD' scale, which attributes a weight of 1 to the first adult in the household, 0.5 to each subsequent member of the household aged 14 and over, and 0.3 to household members aged under 14. The resulting figure is called the equivalised income and is attributed to each member of the household.

(2) The collection 'material deprivation' covers indicators relating to economic strain, durables, housing and the environment of the dwelling. Severely materially deprived persons have living conditions severely constrained by a lack of resources, they experience at least 4 out of the following 9 deprivation items: they cannot afford to i) pay rent or utility bills, ii) keep their home adequately warm, iii) pay unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) have a week's holiday away from home, vi) buy a car, vii) buy a washing machine, viii) buy a colour TV, or ix) have a telephone.

(3) People are considered to be at-risk-of-poverty-or-social exclusion if they are at-risk-of-poverty or experience severe material deprivation or live in households with very low work intensity.

(4) Definition from the EC's 2004 Joint Report on Social Inclusion.

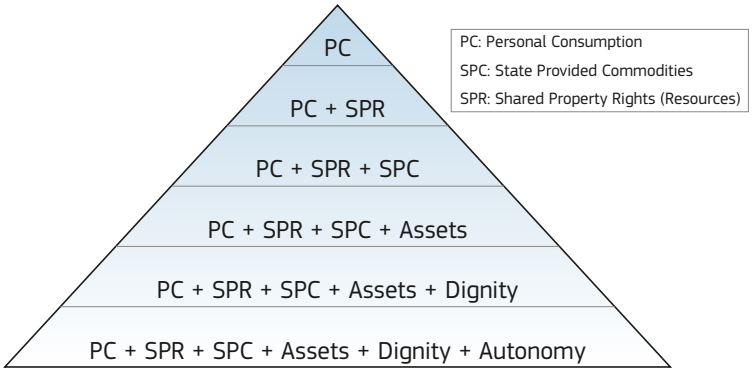
Leading academic Atkinson (1998) points out that social exclusion is a term that has come to be widely used, but that observers only really agree on a single point: the impossibility of defining the status of being 'excluded' using a single and unique criterion. Likewise, Orr (2005) notes that 'a problem with the idea of social exclusion is that there seem to be as many definitions of social exclusion as there are people working on social exclusion'. However, a theme common to most definitions is that social exclusion is multi-dimensional, and that it usually results from the combination of underlying factors. In the United Kingdom the Social Exclusion Unit (2004) attached to the Office of the Deputy Prime Minister has described it as follows:

> 'Social exclusion is about more than income poverty. It is a short-hand term for what can happen when people or areas face a combination of linked problems, such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime and family breakdown. These problems are linked and mutually reinforcing'.

While being poor or excluded is primarily understood in terms of being short of money, there is consensus that it can also mean being deprived of other aspects of life in a rich European society, such as access to paid employment, quality education, health and health care, housing, public benefits, and social contacts. In a broader interpretation, social exclusion refers to processes in which individuals and entire communities of people are systematically blocked from opportunities and resources (for example, housing, employment, healthcare, civic engagement, democratic participation and due process) that are normally available to members of society and which are key to social integration (see for example Paugam (1991), one of the first to use the term social exclusion to describe deprivation in this more comprehensive sense).

The complex multi-dimensional nature of poverty and exclusion is well illustrated by Baulch (1996) through the use of a pyramid of concepts (Chart 1), which takes account of a rising number of aspects of poverty as one moves lower down the pyramid. The most frequently used measures are at the top of the pyramid, and cover aspects which are more straightforward to operationalise. Personal consumption is placed at the top of the pyramid, although this is typically measured with reference to income. The concept of poverty gradually increases in scope to include shared property rights, state-provided commodities, assets, dignity and autonomy at the bottom of the pyramid.

Chart 1: The multidimensional nature of poverty and exclusion: Baulch's pyramid



Source: Baulch (1996).

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Atkinson (1998) states that exclusion is related to both poverty and inequality, but should not be equated with either of them, and highlights a 'three-way relationship' between poverty, unemployment and social exclusion. A clear element of exclusion, which is of particular relevance in the current economic situation, is exclusion from work. Being unemployed, or inactive in labour market terms, has an impact which goes beyond the loss of cash income, since a working life is, in itself, one of the multiple dimensions of social participation, a way of building a social network and realising the individual's potential.

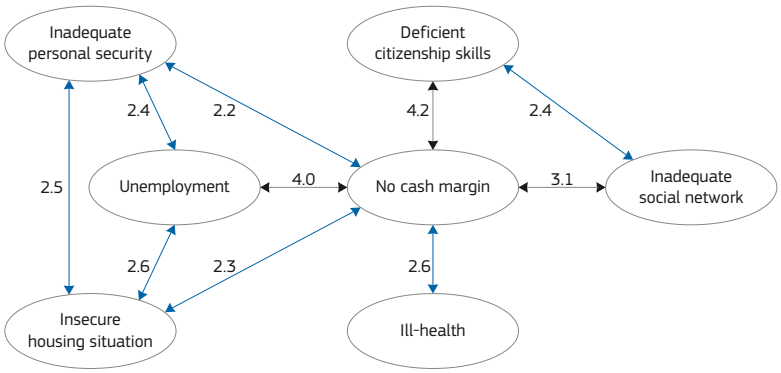
Moreover, it is not only individual welfare which is at stake, but also wider objectives such as social integration. However, social exclusion is not just related to unemployment or inactivity, but rather goes beyond simple exclusion from the labour market. Indeed, it does not follow that employment implies social inclusion, since many employed persons may still feel excluded from the society in which they live if they are deprived of access to the housing market, to bank accounts, to social facilities, etc.

People may also face exclusion if they are unable to participate in the customary consumption activities of the society in which they live. This can include lack of access to basic supplies such as electricity, water, gas, durable goods, nutritional food or recreational, cultural and leisure activities. Likewise the poor may be excluded from services such as insurance cover where premiums are determined by the areas where they live, with banks and credit card companies liable to refuse them on similar criteria.

However it can also be argued that social exclusion should be extended to other dimensions, and include the development of an individual's capabilities (Sen, 2000). In a similar vein, Korpi, Nelson and Stenberg have gone beyond a focus on financial disadvantage towards the accumulation of other disadvantages, and include in their approach an analysis of multi-dimensional 'social problems' covering deficient citizenship skills and inadequate social networks together with unemployment, ill-health,

inadequate personal security and insecure housing situations. However their analysis of the strength of mutual linkages between the different social problem areas also show that these are all closely linked to the central 'lack of a cash margin' dimension, highlighting the key role played by financial difficulties, but also that no area is completely isolated from another (Chart 2).

Chart 2: Illustration of the links between different types of social problems among the Swedish population, from Nelson et al.



Source: Swedish Institute for Social Research/LNU.

Note: Illustration of the links between different types of social problems in the population. The figures represent the mean value of association measures (odds ratios) for 1974, 1981, 1991 and 2000.

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The above suggests that a more comprehensive indicator of social exclusion would need to cover at least three main areas, namely: adequate income support, labour market integration, and access to quality services. The first two aspects are reasonably well covered in the existing Europe 2020 headline indicator on poverty and social exclusion, but the third is less satisfactorily addressed.

In recent years a general agreement has emerged that, despite the continuing vagueness of the term 'social exclusion', its value lies in drawing attention to issues of dynamics and multi-dimensionality (Berghman, 1995; Room, 1999; Sen, 2000), and methodological issues relating to this have been the subject of increased scrutiny (Whelan & Maitre, 2008).

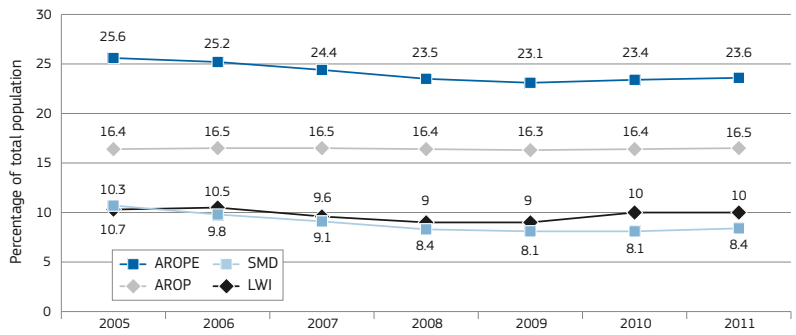
The analysis of the dynamics of these processes that are reported on in this chapter focus on the longitudinal aspects of poverty and severe material deprivation, using available data, although it is recognised that it is not possible to analyse the Europe 2020 poverty headline indicator in this way because of the current lack of longitudinal data concerning jobless (i.e. very low work intensity) households.

2.1. Poverty and social exclusion on the rise in many Member States

The overall movements of the AROPE indicator suggest little change in the extent of poverty and social exclusion at EU level since the onset of the crisis in 2008, with around 1-in-4 at-risk-of-poverty or exclusion in 2011, but it does appear to have brought to an end, or at least halted, the previous trend of a slow continuous reduction (see Chart 3). This reflects a rise in the number of people living in very low work intensity households (LWI), while the at-risk-of-poverty (AROP) and severe material deprivation (SMD) rates have remained broadly stable.

However, the apparent stability in the risk of poverty or social exclusion at EU level hides strong divergence across Member States (see Chart 4), with strong rises compared to 2008 being observed in some (for example, up by 11 percentage points in Bulgaria[4], around 6 percentage points in Ireland[5], Latvia and Lithuania, 4 percentage points in Spain and close to 3 percentage points in Denmark, Greece and Hungary), while others have seen recent declines (especially Poland and Romania, with both seeing the risk fall by 3 to 4 percentage points). As a result, in 2011 the risk of poverty or social exclusion ranged from around 15% in the Czech Republic, the Netherlands

Chart 3: Developments in the risk of poverty or social exclusion and its components in the EU, 2005-2011



Source: Eurostat, EU-SILC.

Note : Low work intensity indicator refers to the age group 0-59. 2011 figures are Eurostat estimates.

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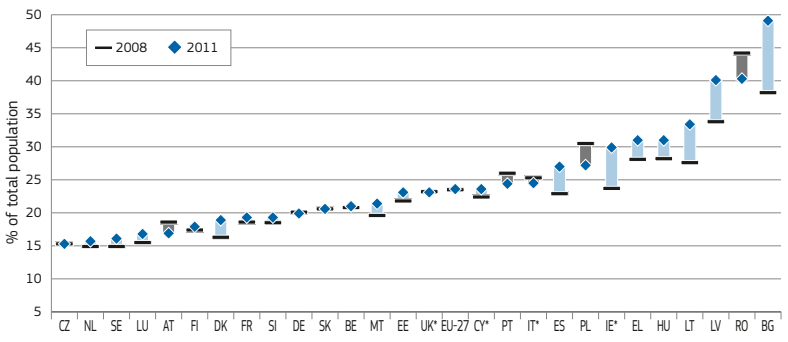
(4) This may partly reflect a break in the time series for Bulgaria in 2008.

(5) In this chapter, the year mentioned refers to the EU-SILC survey year, and not the underlying reference year for the specific component. The annual income and activity status information in the EU-SILC refers to the situation of the previous year (reference year) in almost all countries. Data for the United Kingdom and Ireland refer, however, to a slightly different concept, as the reference time period is the current year for the United Kingdom and the last twelve months for Ireland. Other EU-SILC variables, such as material deprivation, refer to the actual year of the survey.

Chart 4: Developments in the at-risk-of-poverty-or-social exclusion rate across EU Member States between 2008 and 2011



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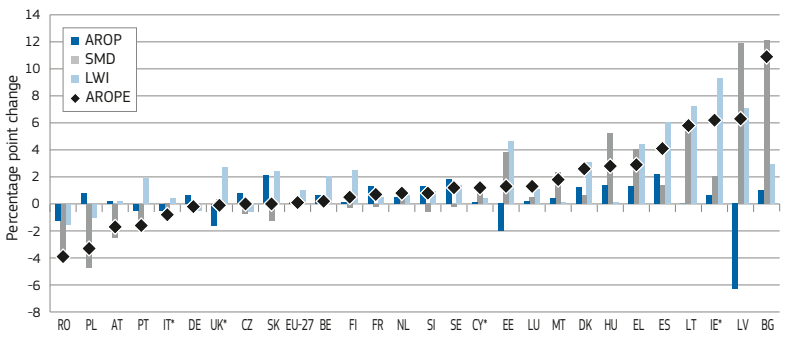
Source: Eurostat, EU-SILC.

Note: *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 figure for EU-27 is Eurostat estimate.

Chart 5: Change in the at-risk-of-poverty-or-social exclusion rate and its components in Member States between 2008 and 2011



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Source: Eurostat, EU-SILC.

Note: Reference periods for income and activity status for IE and UK differ to the other countries (where it refers to the previous year). *Changes for CY, IE, IT and UK are to 2010 instead of 2011, and for EU-27 are based on Eurostat estimates.

and Sweden to over 40% in Latvia and Romania, and almost 50% in Bulgaria.

It is also clear that there is no common pattern in the trends in the underlying components of the at-risk-of-poverty or exclusion indicator (see Chart 5). For example, among those countries having experienced a sharp rise in the risk of poverty or exclusion, the increase in Ireland and Spain mainly reflected increases in the share of the population in very low work intensity households (LWI), while in Latvia and Lithuania it reflected developments in severe material deprivation (SMD) combined with a marked rise in the number of very low work intensity households. Among the countries that recorded an improvement[6], the reductions mainly reflected strong falls in severe material deprivation, as highlighted most strongly in Poland and Romania.

There has been an increase in the very low work intensity component in the majority of Member States, which clearly reflects the labour market effects of the crisis, with more people living in a jobless (or near jobless) household. This is often (but not always) associated with a rise in severe material deprivation, depending on the extent to which the reduced income due to job loss is compensated by benefit transfers or other sources of income. However, the occurrence of severe material deprivation has fallen in some Member States since 2008, reflecting an overall improvement in living standards associated with economic development that continued in the first phase of the crisis in a few countries.

(6) The decline in Austria may be (partly) due to a statistical artefact arising from the unusually high value recorded for severe material deprivation in 2008.

2.2. Diverging trends across Member States in poverty, severe material deprivation and jobless households

This section examines, in more detail, the developments in the underlying components of the at-risk-of-poverty or social exclusion indicator. A general overview is provided of trends in poverty, severe material deprivation and very low work intensity households, set against the background of rising unemployment and long-term unemployment.

2.2.1. Risk of poverty (AROP) up in many Member States

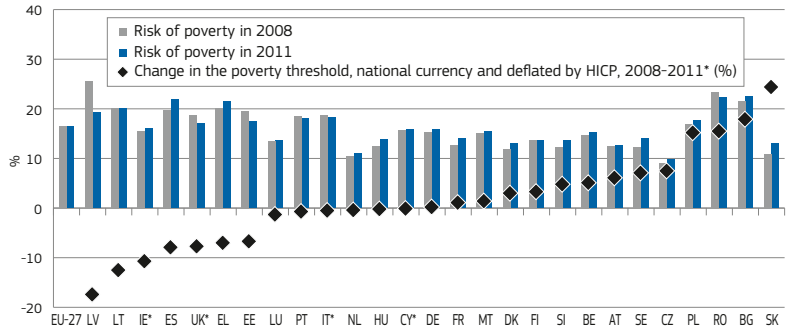
Even though the risk of poverty remained essentially unchanged at EU level overall between 2008 and 2011[7], the risk of poverty nevertheless increased in around half of the Member States, with the most notable rises (of the order of 2 pp or more) being in Slovakia, Spain and Sweden. In contrast, risk of poverty rates decreased noticeably in Estonia, Latvia, Romania and the United Kingdom (see Chart 6).

However, the trends in the AROP indicator must be treated with caution, since the risk of poverty threshold is related to the general level of income, and its distribution, of the whole population. This poverty threshold reflects strongly the evolution of overall incomes and may, therefore, change from one year to another as individual incomes change suddenly, as has occurred since the beginning of the crisis in many countries.

With respect to the effect of the financial and economic crisis, such changes can be due to the fact that different sources of income are not all hit at the same time following such a shock. Work incomes (i.e. wages and salaries) are the first to decrease as the situation on the labour market deteriorates, while other sources of income, such as pensions and social benefits, do not adjust immediately. As work incomes decrease while others remain unchanged, there is distortion in the overall income distribution, and so the median income and therefore the poverty threshold fall. For example, people with an income that was previously slightly below the poverty line may

(7) Note that poverty indicators derived from the EU-SILC survey results are actually based on the income situation of the year preceding the survey (except in Ireland and the United Kingdom). For example 2011 actually refers to the situation in 2010.

Chart 6: Developments in the at-risk-of-poverty indicator from 2008 to 2011 and the underlying poverty threshold (adjusted for inflation)



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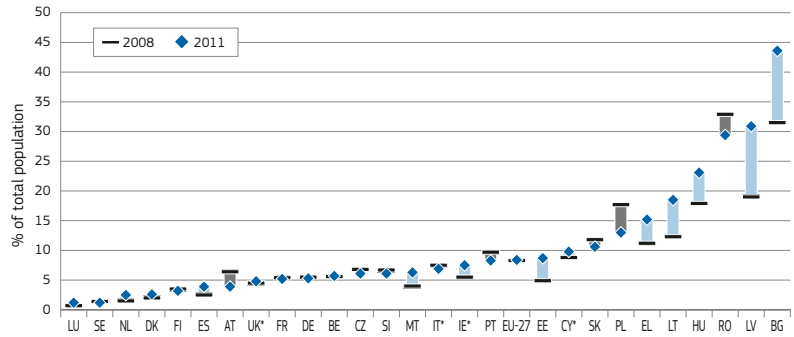
Source: Eurostat, EU-SILC.

Note: : *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 figure for EU-27 is Eurostat estimate.

Chart 7: Developments in severe material deprivation across EU Member States, 2008-2011



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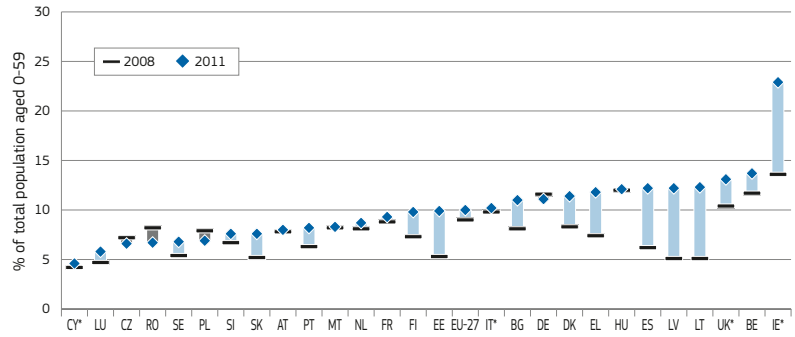
Source: Eurostat, EU-SILC.

Note: Grey bars indicate declines, blue ones increases. *Changes for CY, IE, IT and UK are to 2010 instead of 2011, and for EU-27 is based on Eurostat estimate for 2011.

Chart 8: Developments in the share of people living in jobless/very low work intensity households across EU Member States, 2008-2011



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Source: Eurostat, EU-SILC.

Note: Grey bars indicate declines, blue ones increases. *Figures for CY, IE, IT and UK are for 2010 instead of 2011, and for EU-27 is based on Eurostat estimate for 2011.

now move above the line, even though their actual situation has not changed or, conceivably, has even worsened.

Bearing all this in mind, the poverty threshold was seen to decline dramatically in Latvia between the EU-SILC results for 2008 and 2011, falling 17.4% in real terms (i.e. accounting for inflation over the period). However it also fell in real terms by 12.5% in Lithuania, around 11% in Ireland, and between 7% and 8% in Estonia, Greece, Spain and the United Kingdom. In other words, decreases in the poverty rate that are accompanied by a drop in the poverty threshold, as observed for example in Latvia and the United Kingdom, do not indicate that the situation of people has improved.

2.2.2. Severe material deprivation (SMD) has risen more noticeably in several Member States

Signs of the worsening situation following the crisis are more evident in the trends in severe material deprivation, which rose markedly in several Member States (see Chart 7) between 2008 and 2011 in response to the shock. The most notable rises were in Bulgaria[8] and Latvia (both up around 12 percentage points), while Estonia, Greece, Hungary and Lithuania also experienced rises of around 4 percentage points or more.

In contrast, severe material deprivation declined or remained broadly stable in around half of the Member States, most notably in Romania (with a decline of around 3.5 pps) and Poland (down almost 5 pps). Once again this highlights the strong polarisation in developments across Member States including the way in which the impact of the crisis has been offset to some degree by improvements in underlying economic performance in some new Member States.

2.2.3. Clear impact of the crisis through rising number of jobless (LWI) households

The most immediately evident impact of the crisis has been the growing exclusion from the labour market, as indicated in the AROPE component that focuses on the share of people living in jobless households (i.e. households with very low work intensity (see Chart 8)), with more than half of the Member States experiencing rises to various degrees in the very low work intensity component. The main developments can be summarised as follows:

- For the EU as a whole, the share of persons living in jobless households (defined as households with zero or very low work intensity) increased from 9% to 10% between 2008 and 2011.
- The situation worsened significantly in several Member States, with an increase of 1 pp or more in fifteen. Among these the rise was especially marked in Estonia, Greece, and Spain (all up between 4 and 6 pps), in Latvia and Lithuania (both up 7 pps), and above all in Ireland (up 9 pps).

(8) This may partly reflect a break in the series in the year 2008.

As a result, the share of people living in very low work intensity households in 2011 exceeded 10% in twelve Member States, including Ireland where it was considerably higher at 23%.

2.3. Varied impact of labour market developments on poverty and exclusion

In general there is a strong link between poverty and exclusion and the labour market situation: most countries with high employment rates also have the lowest levels of poverty and exclusion (see Chart 9). Exclusion from the labour market, poor working conditions and the lack of opportunities to remain and progress on a segmented labour market are major determinants of poverty. Indeed, while the risk of poverty or exclusion was 65% for the unemployed in 2011, and 43% for (non-retired) inactive adults, it was only 12.5% for those in employment. Nevertheless, the employed still represent around a quarter of the people at-risk-of-poverty or exclusion in the EU, and it is therefore important from a poverty perspective to see labour market policies addressing issues of living wages for those in work, labour market segmentation, low pay, and under-employment (for further details see Chapter 4 of the 2011 Employment and Social Developments in Europe review).

As indicated above, in line with the rise in unemployment following the 2008 financial and economic crisis, many Member States have seen an increase in the number of households experiencing joblessness (zero or very low work intensity), however labour market developments do not explain the whole picture.

Comparing the change in the AROPE indicator between 2008 and 2011 with the change in employment rates over the same period indicates a clear relationship, but it does not account for all the variation across Member States (see Chart 10). Of particular note are Poland and Romania, which experienced only limited change in the employment rate but a significant drop in the risk of poverty or exclusion. In contrast, in relation to changes in employment, particularly strong increases in the risk of poverty or exclusion were seen in Bulgaria, Ireland, Latvia and Lithuania, and also in Luxembourg and Malta, even though for the latter two their labour market situations had improved.

Part of the explanation for the variations in the impact of labour market developments on the risk of poverty or exclusion seems to lie in how strongly the developments in employment are linked to the level of work intensity in households. Analysis shows that the strength of the correlation depends, for example, on the prevalence and economic vulnerability of single households as well as the extent to which households with several working age adults are able to increase

Chart 9: At-risk-of-poverty-or-social exclusion rates versus employment rates, 2011

Source: Eurostat, EU-SILC and Labour Force Survey.

Note: *Figures for CY, IE, IT and UK are for 2010 instead of 2011, and for EU-27 the 2011. AROPE figure is a Eurostat estimate.

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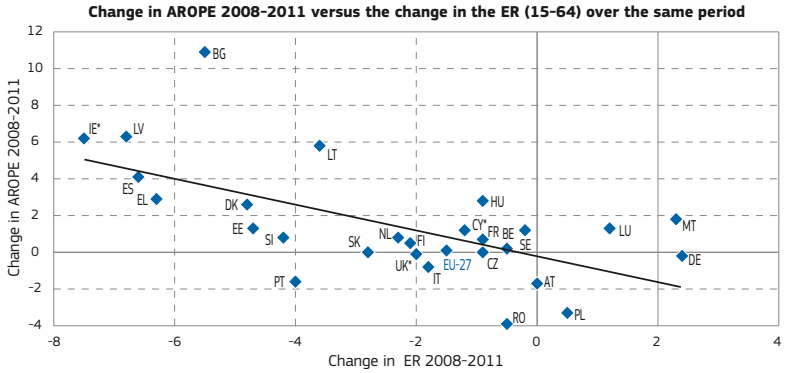
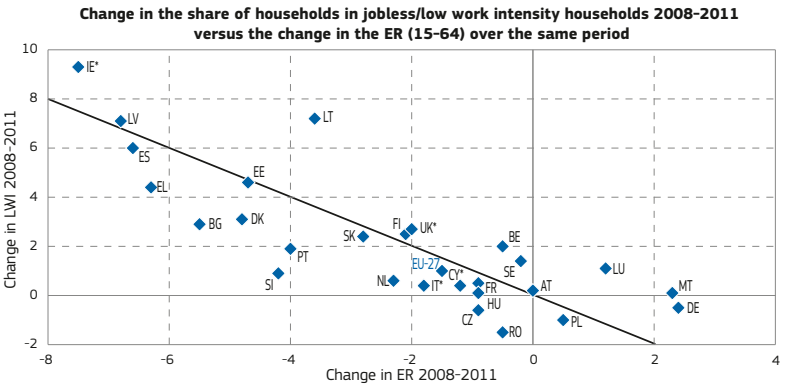
Chart 10: Changes in the risk of poverty and social exclusion and in the share of jobless/very low work intensity households versus the change in employment rates 2008-2011



Source: Eurostat, EU-SILC and Labour Force Survey.

Note: Black line is OLS regression fit. *Changes for CY, IE, IT and UK are to 2010 instead of 2011, and for EU-27 is based on Eurostat estimate for 2011.



Source: Eurostat, EU-SILC and Labour Force Survey.

Note: Black line indicates equal change in ER and LWI rate. *Changes for CY, IE, IT and UK are to 2010 instead of 2011, and for EU-27 is based on Eurostat estimate for 2011.

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or maintain their level of work intensity (for example, through a second household member taking up work or deciding to work more).

In some countries experiencing strong declines in employment levels, such as Bulgaria, Denmark Greece, Portugal and Slovenia, the share of people living in very low work intensity households increased to a much lesser extent than the decline in employment. In other countries, the share of people in such households increased in a similar proportion to the fall in employment rates, and in a few countries, such as Ireland and Lithuania, even more markedly. This could be due to the decline in employment mainly affecting workers living in the most vulnerable households, such as single households (including single parents), single breadwinner couples, or couples where both are employed in similar jobs with little possibility to increase work intensity.

2.4. Developments in poverty or exclusion for different population groups

The following sections examine which population subgroups are traditionally at greater risk of poverty or exclusion and which have been impacted most by the crisis.

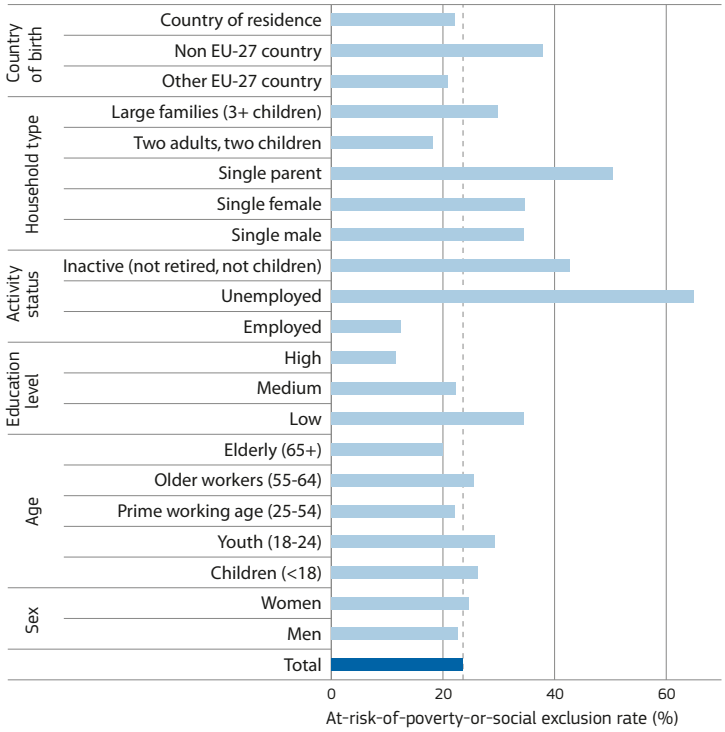
2.4.1. The unemployed, the inactive, single parent families and migrants at greater risk of poverty or exclusion

Among the population subgroups, it is the unemployed, the inactive[9], single parent families and migrants who clearly face the greatest risks of poverty or exclusion.

As illustrated in Chart 11, nearly two thirds of the unemployed are at-risk-of-poverty or exclusion, while the inactive of working age (excluding the retired) also face a much higher risk than the overall population (43 % against around 24 % overall). People in employment face a much lower risk of poverty and exclusion (12.5 %) than the average population, again emphasising the key role employment plays in reducing exposure.

(9) Here referring to those who are not retired and are in the age group 18+.

Chart 11: Risk of poverty or social exclusion in the EU for population subgroups, 2011



Source: Eurostat, EU-SILC.

Note: Figures are Eurostat estimates for 2011.

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Among different household types, single parent families face a particularly high risk (50 %), but risks are also above average for single households and large families (households consisting of two adults and three or more dependent children). In terms of age groups, children and young adults are more at risk than others, while the elderly and those of prime working age (25-54) have below average risks. There is also a clear link with levels of education, with the low-skilled facing a much higher risk (34.5 %) compared to the medium-skilled (22 %) and the high-skilled (12 %).

Among different groups according to country of birth, migrants from outside the EU clearly face the highest risks. For them the risk of poverty or social exclusion is 38 %, much higher than the risk for non-migrants (i.e. people born in their country of residence), at 22 %, and for mobile EU citizens from other EU Member States (around 21 %). Ethnic minorities, including the Roma, cannot be identified through EU-SILC data, but available national sources indicate that they also face high risks of exclusion.

2.4.2. The crisis has not impacted uniformly across the whole population

Focusing on developments across Member States in terms of the risk of poverty or social exclusion for different age groups (see Chart 12), it is evident that the crisis has not impacted uniformly across the whole population, and has often led to a worsening situation for groups such as children and young adults, who were already at heightened risk before the crisis.

Young adults and working age adults were the first to be hit by the economic crisis. Between 2008 and 2011 they experienced increases in the risk of poverty or social exclusion of 1.2 and 1.3 percentage points respectively across the EU as a whole, while the rate for the 55-64 age group decreased by 0.3 percentage points, and for those aged 65 and over it fell by more than 3 percentage points.

However, the apparent improvement in the relative situation for the elderly reflects the fact that pensions have remained to a large extent unchanged during the crisis, and have in some cases brought

pensioners' income above the poverty threshold due to the changes in the total income distribution while not altering in real terms their economic situation.

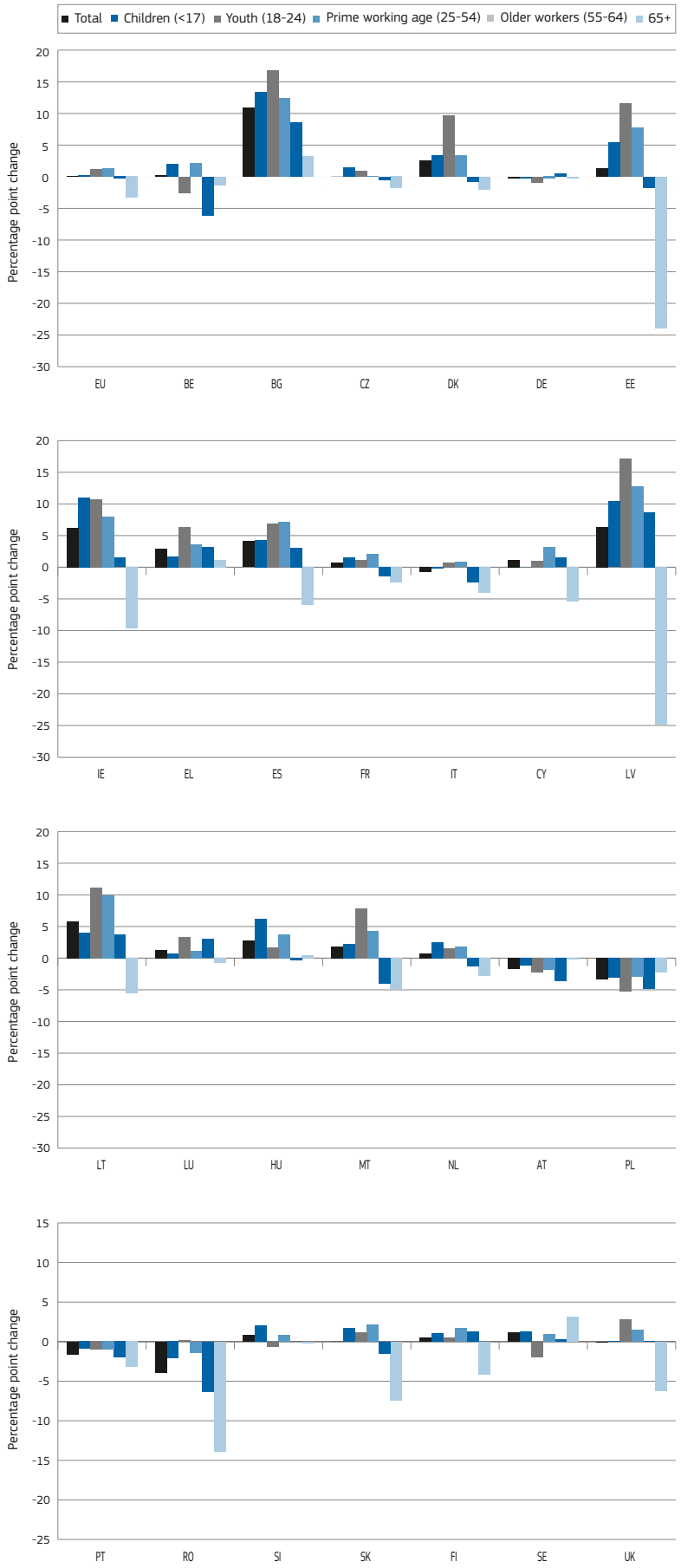
In contrast, there has been a notable rise in poverty and social exclusion among youth, even in countries where the overall risk of poverty or exclusion has been stable. For example, in the United Kingdom the risk of poverty or exclusion has remained stable overall, but has increased around 3 pps for young adults, while decreasing 6 pps for the elderly.

In terms of the impact in different Member States:

- the risk of poverty or exclusion among the prime working age group has risen by more than 7 pps in Bulgaria, Estonia, Ireland, Latvia, Lithuania and Spain with a notable impact on the equivalent risk for children in these Member States;
- the risk of poverty or exclusion among children increased markedly (of the order of 5 pps or more) in Estonia and Hungary, and in excess of 10 pps in Bulgaria, Ireland and Latvia;
- young adults, who face the combined challenge of high unemployment and low income, have also been severely hit, again especially in the Baltic States, Bulgaria and Ireland but also in Denmark, Greece, Malta and Spain. (The risk of poverty or exclusion for those aged 18-24 increased by 6-7 pps in Greece and Spain, 8-12 pps in Denmark, Estonia, Ireland, Lithuania and Malta, and by as much as around 17 pps in Bulgaria and Latvia between 2008 and 2011).

The above results highlight that, apart from marked impacts on children in certain Member States, the working age population is, generally speaking, the age group that has been most directly hit by the recent financial and economic crisis, and hence the one which needs more immediate attention, but it is also the case that addressing the situation of this group ultimately also impacts on the other age groups, especially children. Much of the analysis in the latter part of the chapter therefore focuses on the dynamics of and transitions in poverty and deprivation among the working age population 18-64.

Chart 12: Change in the at-risk-of-poverty-or-social exclusion rate by age groups across Member States, 2008-2011



Source: Eurostat, EU-SILC

Note: *Figures for CY, IE, IT and UK are for changes to 2010 instead of 2011.
EU-27: Based on Eurostat estimates for 2011.

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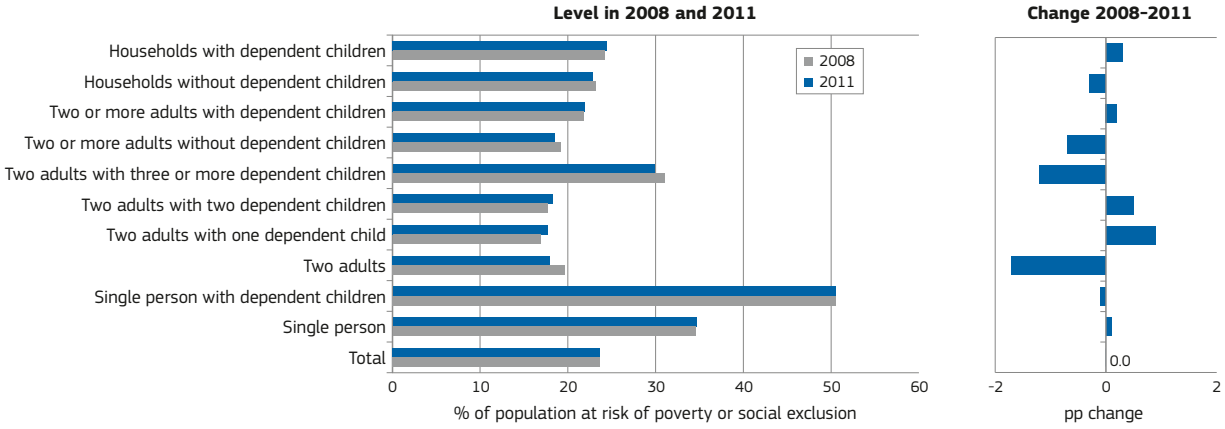
Chart 13: The at-risk-of-poverty-or-social exclusion rate by household type at EU level in 2008 and 2011



Source: Eurostat, EU-SILC.

Note: 2011 figures for EU-27 are Eurostat estimates.

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In terms of types of household most affected by rises in poverty or exclusion, households with children have suffered more than those without (see Chart 13), with the former seeing the risk of poverty or social exclusion rise 0.3 pp across the EU as a whole since 2008, while the latter group experienced a 0.3 pp decrease. Single parent households remain the most at risk. However, even family households of two adults and one or two children have experienced increases, although their overall rates remain among the lowest.

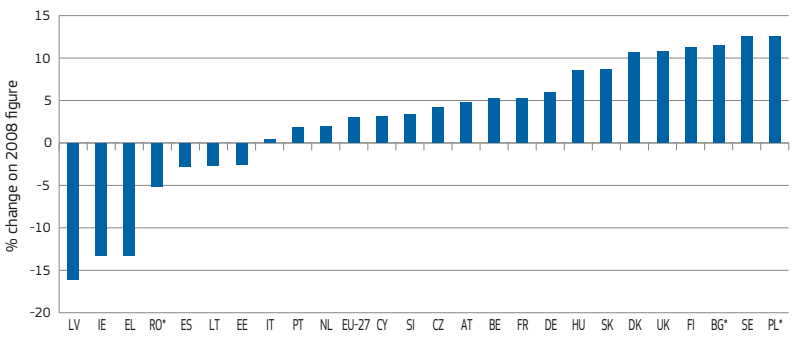
3. Trends in the severity of poverty and social exclusion and in multiple disadvantage

It is important not just to focus on trends in the extent of poverty and social exclusion, but also to consider developments in its severity or depth. This section therefore focuses on trends in indicators of household financial stress, the poverty gap, and some of the more severe forms of poverty and deprivation. It also addresses issues of multiple disadvantage combining poverty and/or deprivation, and/or very low work intensity – in other words, the intersections of the three components of the at-risk-of-poverty-or-social exclusion indicator.

3.1. The crisis has led to increased household financial stress in many Member States

The crisis has had a strong impact on the financial situation of households in several Member States. For example, between 2008 and 2011 average household gross disposable income fell in nominal terms by as much as 16% in Latvia and by around 13% in Ireland and Greece (see Chart 14). Notable falls were also recorded in Estonia, Lithuania, Romania and Spain.

Chart 14: Change in gross household disposable income between 2008 and 2011 (% change on 2008)



Source: Eurostat, annual sector accounts.

Note: *Changes for BG, PL and RO are to 2010 instead of 2011.

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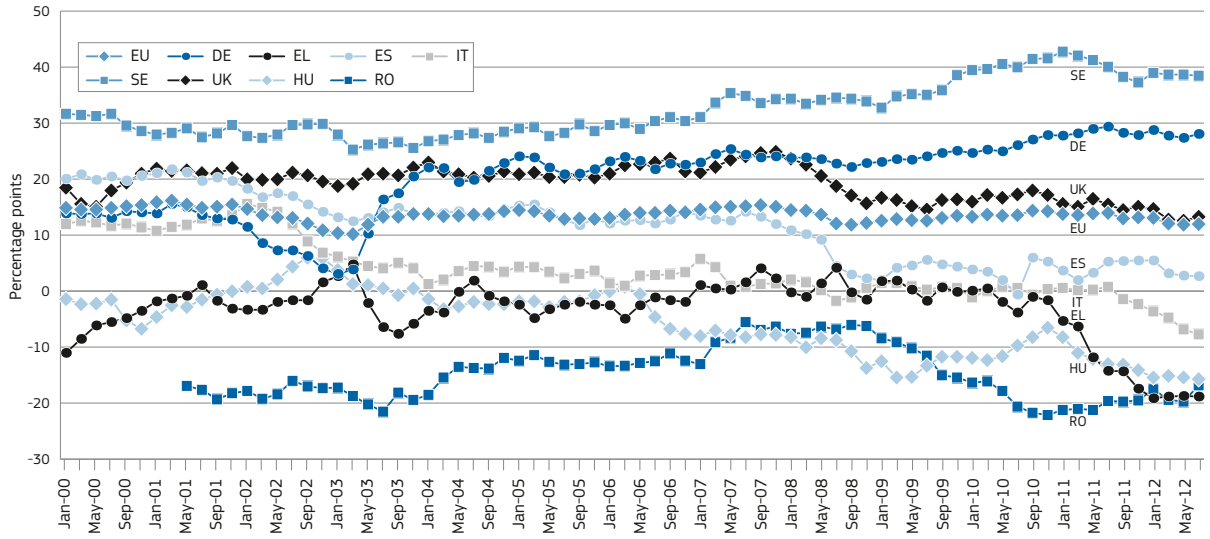
Results from consumer surveys carried out under the joint harmonised EU programme of business and consumer surveys suggest there is a marked divergence in developments in the financial situations of households across individual Member States (see Chart 15). For example, the balance of positive against negative assessments of household financial situations[10] indicates broadly positive trends in countries such as Germany and Sweden since the onset of the financial crisis, resulting in improvements compared with the pre-crisis level, although with a general weakening in 2011 and into 2012.

However, this contrasts with the marked downward trends since the economic crisis first hit in countries such as the United Kingdom, Spain, and, with a delay, Romania. For all these Member States, the balance remains well down on pre-crisis levels, with no signs yet of a sustained recovery. In fact all except Romania report a marked worsening in the balance figures over 2012, a development also observed in Italy.

(10) The overall balance for the consumer survey questions reported here is calculated according to the formula *balance = (PP + ½ P) – (1/2 M + MM),* where PP is the number of the most positive responses (for example, got a lot better, we are saving a lot), P the number of slightly positive responses (got a little better, we are saving a little), M the number of slightly negative responses (for example, got a little worse, we are having to draw on our savings), etc.

Chart 15: Balance of consumer opinion on the current financial situation in their households for selected Member States, 2000-2012



Source: Joint EU harmonised consumer surveys, seasonally adjusted data.
Note: 3-month centred moving averages.

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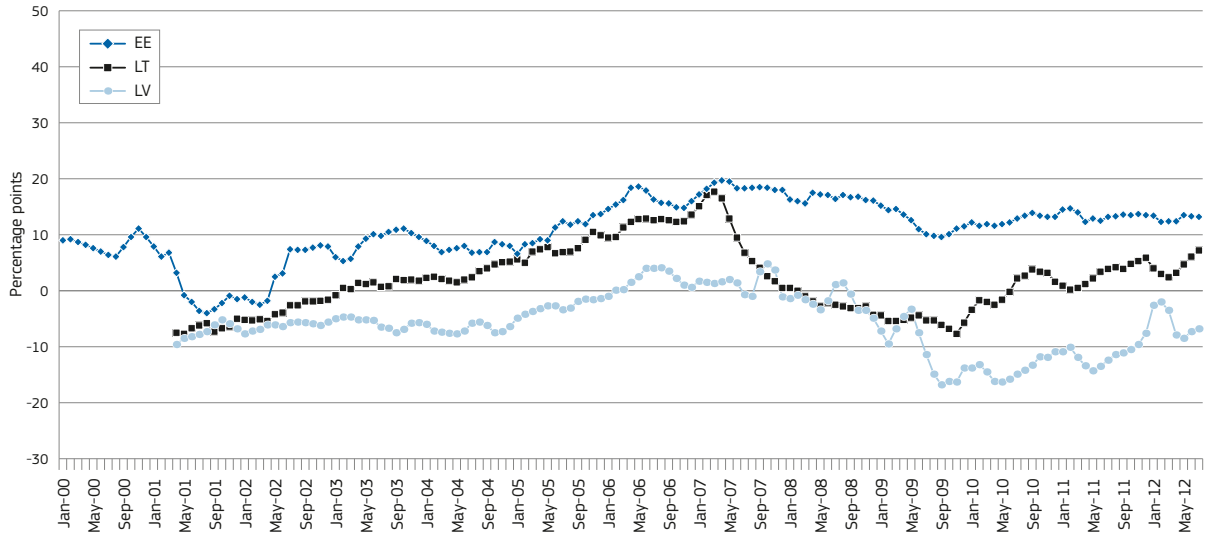
Chart 16: Balance of consumer opinion on the current financial situation in their households in the Baltic States, 2000-2012



Source: Joint EU harmonised consumer surveys, seasonally adjusted data.
Note: 3-month centred moving averages.

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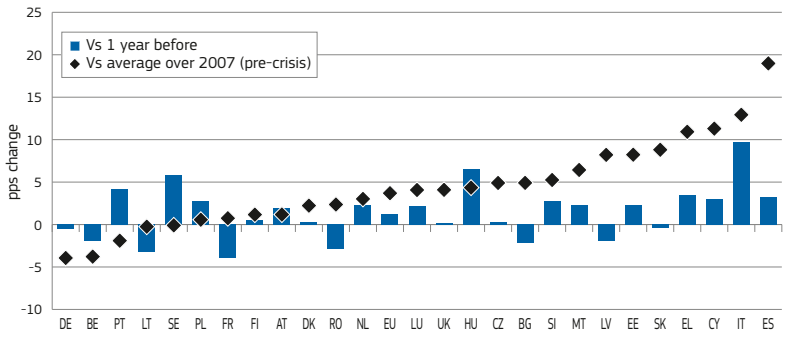
Reflecting the recent financial turmoil in that Member State, there was also a very pronounced downward trend in the balance of consumer opinions on households' current financial situations in Greece from autumn 2010 until early 2012, while similar developments can be observed in Hungary. In contrast, the Baltic States of Latvia and Lithuania, which were among those showing the worst deterioration in social outcomes between 2008 and 2010, seem to have experienced some improvement in 2011 on the back of strong economic recoveries, but with signs of a partial relapse in the early part of 2012 (see Chart 16).

Consumer survey questions about the current financial situation of households also allow us to monitor the share of people in households that face particularly marked financial difficulties in terms of having to draw on savings, or go into debt, in order to cover current expenditures. Focusing on the lowest income quartile group, which is most at-risk-of-poverty-and-social exclusion, we see that the share experiencing this form of 'financial distress'[11] increased over the year to mid-2012 in the majority of Member States and indeed for the EU as a whole (see Chart 17).

(11) The combined share of households reporting that they are either having to draw on savings or are running into debt.

Chart 17: Change in population share in households in the lowest income quartile reporting financial distress across the EU (as at July 2012)



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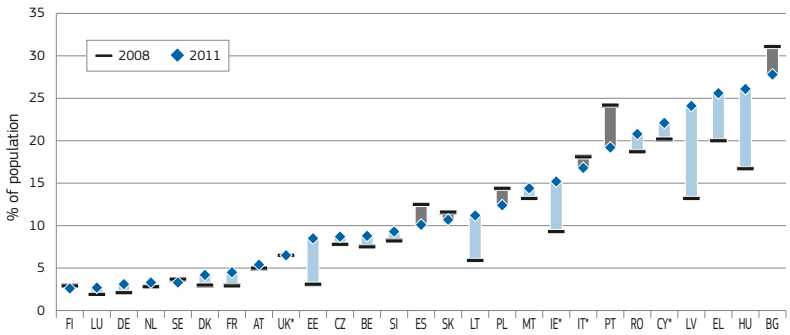
Source: Joint harmonised EU consumer surveys & DG EMPL calculations.

Note: Based on 3 month centred moving averages. Data not seasonally adjusted. Break in series for Ireland in 2009 (figures for change vs one year before 7.6 pps).

Chart 18: Share of the population reporting great difficulty in making ends meet, 2008-2011



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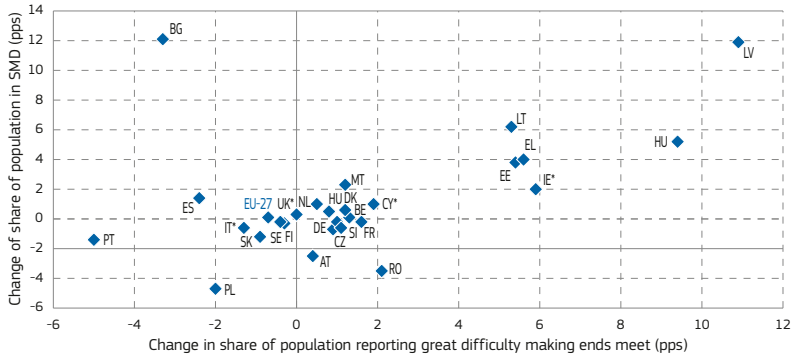
Source: Eurostat, EU SILC.

Note: Grey bars indicate declines and blue ones increases. *Changes for CY, IE, IT and UK are to 2010 instead of 2011.

Chart 19: Changes (from 2008 to 2011) in the share of the population experiencing severe material deprivation and the share of the population reporting great difficulty in making ends meet



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Source: Eurostat, EU-SILC.

Note: *Changes for CY, IE, IT and UK are to 2010 instead of 2011, and for EU-27 is based on Eurostat estimates for 2011.

Of particular note is the rise in financial distress among the lower income quartile households in Italy, with a year-on-year rise of the order of 10 pps. Ireland, Hungary and Sweden have also seen rises in excess of five percentage points over the year. Only a few Member States have seen a noticeable fall in the share of lower income households reporting financial distress over the last year, most notably France, Lithuania and Romania, but also Belgium, Bulgaria and Latvia, while the situation of such households in the Czech Republic, Denmark, Finland, Germany, Slovakia and the United Kingdom has changed little.

If these trends are confirmed in subsequent EU-SILC data on poverty and deprivation then the indications are that the social situation has deteriorated further beyond 2011 in most Member States. From a longer-term perspective, comparisons with the pre-crisis position (i.e. the average level of the financial distress indicator over 2007) serve to indicate how low income households in many Member States are continuing to suffer from the crisis, while highlighting the significantly worsened situation especially in Cyprus, Greece, Italy and Spain.

Similar to the above trends, there has been a significant jump in many Member States in the number of people reporting economic strains in their household as collected via the EU-SILC instrument. In particular, the share of people reporting that their household is only managing to 'make ends meet' with great difficulty has risen sharply (by more than 5 pps) in the Baltic States, Greece, Hungary and Ireland since 2008 (see Chart 18), with Hungary and Latvia experiencing jumps of around 10 pps.

As a result of these developments, in around half of the Member States more than 1-in-10 people reported their households had great difficulty in making ends meet in 2011, while in several Member States (Bulgaria, Cyprus, Greece, Hungary, Latvia and Romania) the share was more than 1-in-5.

While the basis for this assessment may appear rather subjective, it should be recognised that the focus is on the more extreme cases (those facing great difficulty) and that there is (excluding the outlier Bulgaria), in fact, a strong correlation across countries between changes in the numbers reporting great difficulty in making ends meet, and in the share of the population facing severe material deprivation (see Chart 19).

In most countries, the rise in the numbers reporting only being able to make ends meet with great difficulty is generally associated with increases in other factors indicating economic strain within households, such as being in

arrears on mortgage or rent payments, or being in arrears with respect to utility bills (see Chart 20).

For the EU as a whole, the share of the population reporting 'being in arrears on utility bills' increased by 0.5 pp between 2008 and 2011, to 8.4%, with the greatest increases (in excess of 4 pps) in Cyprus, Estonia, Greece, Hungary, Ireland, Latvia (up 12 pps) and Lithuania. While some Member States (Bulgaria, Italy and Sweden) did see falls in the share, the vast majority witnessed noticeable increases, with the population in arrears exceeding 10% in 12 Member States in 2011, including Bulgaria, Greece, Hungary, Latvia and Romania where the shares even exceeded 20%.

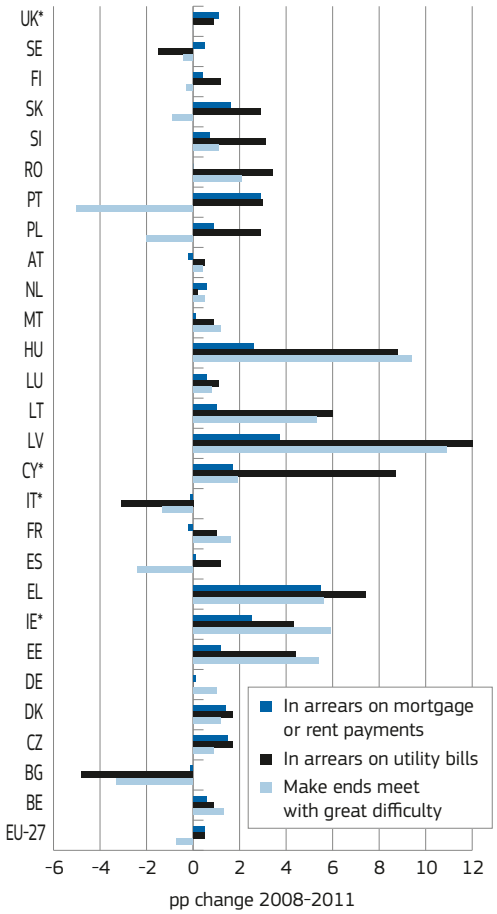
In terms of 'falling into arrears on mortgage or rent payments' the rise has been similar (although in this case the consequences are potentially more severe) with the share across the EU as a whole increasing by 0.5 pps from some 3.3% in 2008 to nearly 4% in 2011, but again with a wide variation across Member States. Twelve Member States witnessed significant rises in excess of 1pp, with the most notable increases (of more than 2 pps) in Hungary, Ireland and Portugal, and of around 4 pps or more in Greece and Latvia.

More than 1-in-20 of the population reported being in arrears on mortgage or rent payments in 2011 in Cyprus, France, Hungary, Latvia, and Portugal, while in Ireland the share had jumped to 8% and in Greece to 11%. This potentially has implications for rates of homelessness unless appropriate measures are taken to provide support and prevent repossession or evictions.

The rise in the population in arrears on mortgage or rent payments partly reflects the changes in the burden that this major element of household expenditure represents. Among the population at-risk-of-poverty (those with incomes below 60% of the national median equivalised income) 50% live with a heavy financial burden due to housing costs. In several Member States the share rose markedly over the three-year period (see Chart 21), most notably in Estonia, Greece and Hungary (all up around 16-18 pps) and above all in Latvia (up 23 pps), Poland (up 23 pps) and Malta (up 28 pps).

Combining data on the changes in the population shares affected by the two types of arrears suggests that perhaps the strongest impact of the crisis in terms of putting financial strain on households has occurred in Cyprus, Greece, Hungary, Ireland, Latvia and Portugal (see Chart 22). Moreover these are almost all among the Member States with the worst situations in terms of levels in 2011, while Bulgaria and Romania also stand out in terms of the shares of the populations with arrears on utility payments.

Chart 20: Changes in major factors indicating economic strain in households, 2008-2011



Source: Eurostat, EU-SILC.

Note: *Changes for CY, IE, IT and UK are to 2010 instead of 2011, and for EU-27 are based on Eurostat estimates for 2011.

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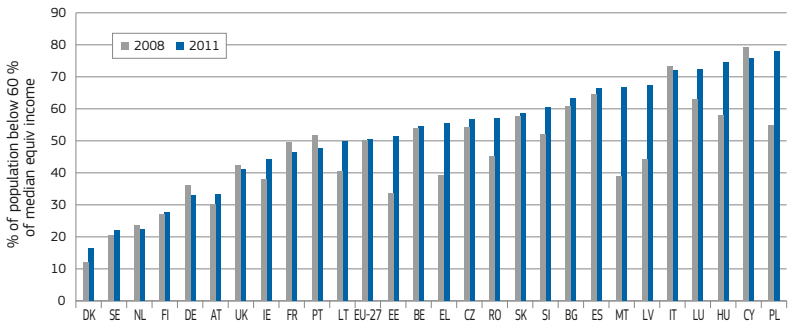
Chart 21: Share of the population at-risk-of-poverty living in households with a heavy financial burden due to housing costs, 2008 and 2011



Source: Eurostat, EU-SILC.

Note: *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 figure for EU-27 is Eurostat estimate.

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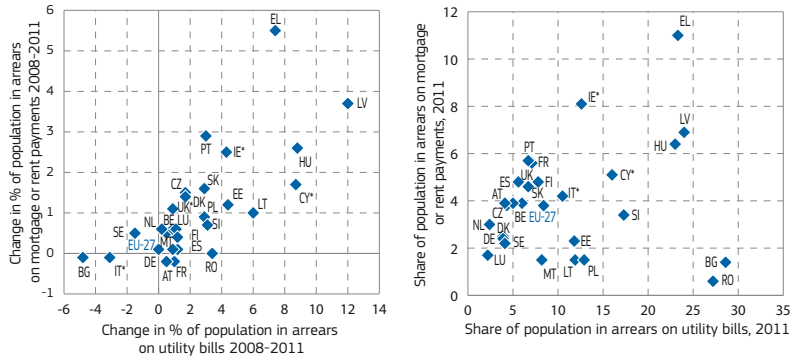
Chart 22: Change over 2008-2011 in the population shares in arrears on mortgage/rent payments and on utility bills, and situation in 2011



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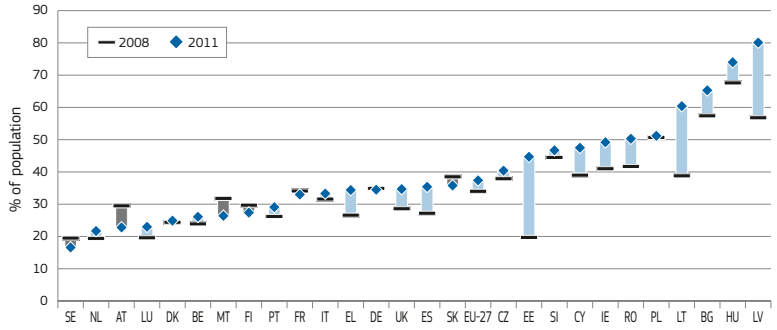
Source: Eurostat, EU-SILC.

Note: *Changes and situation for CY, IE, IT and UK are for 2010 instead of 2011, and for EU-27 are based on Eurostat estimates for 2011.

Chart 23: Share of the population unable to meet unexpected financial expenses, 2008-2011



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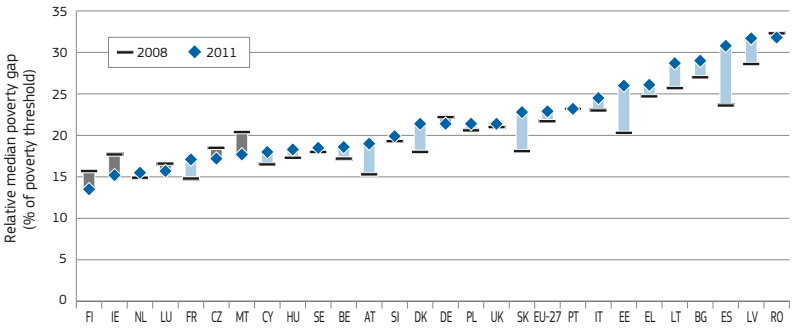
Source: Eurostat, EU SILC.

Note: Grey bars indicate declines and blue ones increases. *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 EU-27 figure is Eurostat estimate.

Chart 24: Change in the relative median at-risk-of-poverty gap 2008-2011



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Source: Eurostat, EU-SILC.

Note: Figures refer to cut-off point: 60% of median equivalised income, grey bars indicate declines in the poverty gap and blue ones increases. *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 EU-27 figure is Eurostat estimate.

The generally worsening financial situation of households has had a clear impact on their ability to cope with unexpected financial expenses (see Chart 23), which highlights the risk that unforeseen life events or further economic shocks could significantly affect their welfare and social situation. In particular, the number of people unable to meet unexpected expenses increased dramatically on 2008 in Estonia, Latvia and Lithuania (all seeing rises in the share in excess of 20 pps), with significant increases also in Bulgaria, Cyprus, Greece, Hungary, Ireland, Spain, Romania and the United Kingdom (all up around 6-9 pps).

3.2. Poverty gap figures indicate that poverty has generally become more severe

Developments in the poverty gap[12] (see Chart 24), which highlights "how poor the poor are" or the depth of poverty, indicate that poverty has generally become more severe since the crisis, with a rise in the indicator in all but a few Member States, and with especially strong increases (ranging from around 5 to 7 pps) in Estonia, Slovakia and Spain. Only in the Czech Republic, Finland, Ireland and Malta have there been notable falls in the poverty gap (of more than 1 pp), although for Ireland this was associated with a considerable fall in the underlying poverty threshold. For the EU as a whole, the median poverty gap was up 1.2 pps to 23% in 2011, indicating that half of those living at-risk-of-poverty were at least 23% below the relevant at-risk-of-poverty threshold. Differences across Member States are significant, with particularly high (of the order of 30%) poverty gaps being recorded in Bulgaria, Latvia, Lithuania, Romania and Spain in 2011.

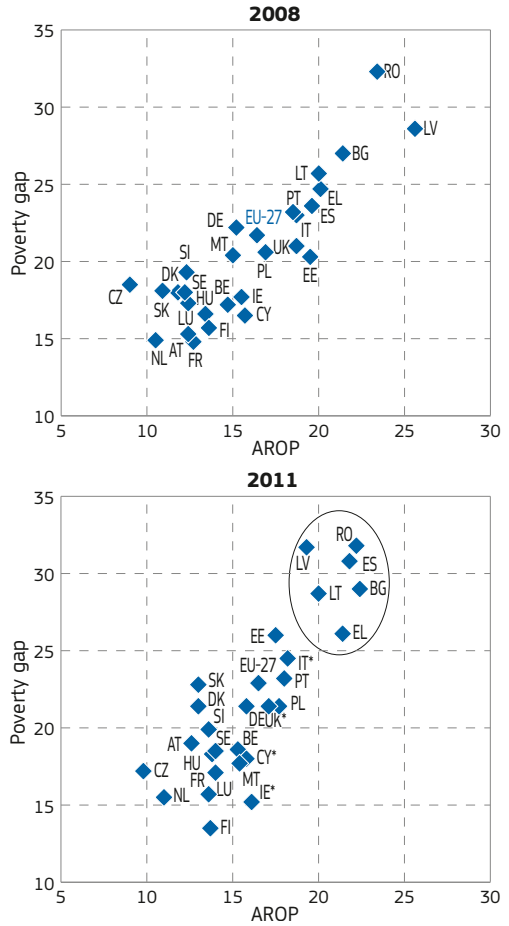
Combining the indicators of the extent and the severity of poverty (see Chart 25) highlights those Member States who face particularly strong social challenges in terms of poverty, namely Bulgaria, Latvia and Romania, who have been joined by Greece, Lithuania and Spain as the crisis continues, with Estonia, Italy and Portugal not far behind.

While there have been relatively few instances of Member States showing substantial rises in the overall poverty rate (i.e. the extent of poverty), there are many cases of marked increases in the poverty gap (i.e. the severity of poverty), with the rise in the latter at EU level being 1.2 pps. Of particular note are the sizeable increases in both the poverty rate and the poverty gap in Denmark, France, Greece, Slovakia and Spain.

The increase in the severity of poverty is confirmed by data on the dispersion around the at-risk-of-poverty threshold.

(12) The indicator is defined as the difference between the median equivalised total net income of persons below the at-risk-of-poverty threshold and the at-risk-of-poverty threshold, expressed as a percentage of the at-risk-of-poverty threshold. It gives an idea of the severity of poverty for those experiencing it.

Chart 25: Developments over 2008-2011 in the poverty gap and the risk of poverty across EU Member States in 2008 and 2011



	Changes 2008-2011 in percentage points	
	AROP	Poverty Gap
EU-27	0.1	**1.2**
BE	0.6	**1.4**
BG	1.0	**2.0**
CZ	0.8	-1.3
DK	**1.2**	**3.4**
DE	0.6	-0.8
EE	-2.0	**5.7**
IE*	0.6	-2.5
EL	**1.3**	**1.4**
ES	**2.2**	**7.2**
FR	**1.3**	**2.3**
IT*	-0.5	**1.5**
CY*	0.1	**1.5**
LV	-6.3	**3.1**
LT	0.0	**3.0**
LU	0.2	-0.9
HU	**1.4**	1.0
MT	0.4	-2.7
NL	0.5	0.6
AT	0.2	**3.7**
PL	0.8	0.8
PT	-0.5	0.0
RO	-1.2	-0.5
SI	**1.3**	0.6
SK	**2.1**	**4.7**
FI	0.1	-2.2
SE	**1.8**	0.5
UK*	-1.6	0.4

Source: Eurostat, EU-SILC.

Note: Changes in AROP and Poverty gap of more than 1 percentage point are highlighted in bold. *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 EU-27 figure is Eurostat estimate.

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Figures on the percentage of the population with an equivalised disposable income below 40%, 50%, 60% and 70% respectively of the national median equivalised disposable income indicate that, for the EU as a whole, the greatest increase between 2008 and 2011 was in the groups with an equivalised disposable income of below 40% and below 50% of the median. This suggests that within the population living at-risk-of-poverty, more people have dropped to the bottom of the income distribution since the beginning of the crisis.

At individual Member State level, the most substantial rises in the share of the population in the poorest group (with income below 40% of the national median equivalised income) occurred in Bulgaria, Denmark, Estonia, Greece, Ireland, Lithuania and Slovakia (all with rises of the order of 1-2 pps) and, above all, in Spain where the share increased by 3 pps. In contrast, Latvia and Malta saw the population shares in the below 40% median income group decline by around 1 pp or more.

3.3. Rising population facing multiple disadvantage

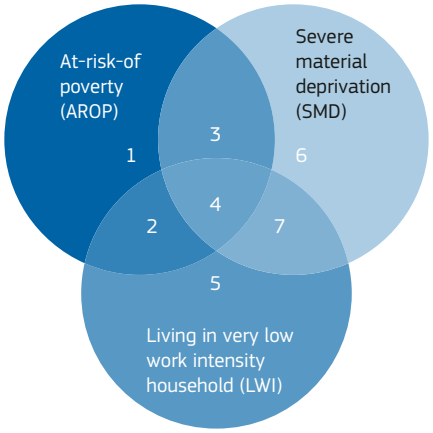
The population that falls in the different intersections of the three components of the AROPE indicator – being at-risk-of-poverty (AROP)/ in severe material deprivation (SMD)/living in a household with very low work intensity (LWI) – represents people in various situations of multiple disadvantage[13], for example experiencing both poverty and severe material deprivation, or combining this with living in a household with very low work intensity, etc. The possible combinations of multiple disadvantage are illustrated in Chart 26 where, for example, the segment numbered 3 represents those people at-risk-of-poverty and suffering severe material deprivation, but not living in a household with very low work intensity.

The population shares within the different overlapping segments, and how these evolved between 2008 and 2010, are shown in Table 1. In terms of overlaps between any two components, the situation in 2010 can be summarised as follows:

- around 4% (19 million) of the EU population were both at-risk-of-poverty and experiencing severe material deprivation (*segments 3 and 4*) in 2010. This covers people who have a relatively low income that also has an impact on their living standards; the overlap is largest mainly in low GDP per capita countries (see Box 2 for a detailed review of this overlap population);

(13) It does not always follow that someone in a situation of experiencing more components is necessarily more severely affected than one concerned with fewer components. While this may be true for the intersection of poverty and severe material deprivation, it is less clear with the jobless household component, which does not cover some segments of the population. For example, an elderly woman with a very small pension may be much worse off than someone in early retirement who might be considered as living in a jobless household, living just below the poverty line and declaring he or she is suffering severe material deprivation. In summary, the three components enable us to capture the multiple dimensions of poverty, but these dimensions are not necessarily 'additive' in the strict sense.

Chart 26: Schematic diagram of the segments and overlaps in the components of the AROPE indicator



1 Population at risk of poverty but not severely materially deprived and not living in a household with low work intensity
2 Population at risk of poverty, not severely materially deprived but living in a household with low work intensity
3 Population at risk of poverty, severely materially deprived but not living in a household with low work intensity
4 Population at risk of poverty, severely materially deprived and living in a household with low work intensity
5 Population not at risk of poverty, not severely materially deprived but living in a household with low work intensity
6 Population not at risk of poverty but severely materially deprived and not living in a household with low work intensity
7 Population not at risk of poverty but severely materially deprived and living in a household with low work intensity

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- some 2 % (10 million) suffered both severe material deprivation and were living in a household with very low work intensity (*segments 4 and 7*). This covers people living in essentially jobless households whose lack of work involvement has an impact on their living standards (for example where benefits have less impact on reducing deprivation); the overlap is largest mainly in countries with low GDP per capita and/or less generous benefit systems;

- over 4 % (21 million) were at-risk-of-poverty and were living in a household with very low work intensity (*segments 2 and 4*). This covers people in jobless households that also have a relatively low income. Apart from the overlap of all three components (segment 4), it depends on the size of the overlap between jobless households and at-risk-of-poverty excluding severe material deprivation, which means that many rich Member States are also covered in this population (since these households are often in rich countries with low severe material deprivation) .

With regard to developments from 2008 to 2010, the shares in the first two overlap cases above changed little at EU level, but a more noticeable change can be seen with respect to those who are at-risk-of-poverty and living in a household with very low work intensity, where the share has risen 0.4 pps, reflecting the effect of the deterioration in the labour market on households.

Of course there are large variations across Member States in the population shares in the different overlapping segments between any two components. The largest variation in 2010 occurred in the overlap of being both at-risk-of-poverty and experiencing severe material deprivation, which ranged from below 1 % of the population in Luxembourg, the Netherlands and Sweden to over 12 % in Latvia and Romania, and close to 15 % in Bulgaria. The share of the population both at-risk-of-poverty and living in a very low work intensity household varied much less across countries, from 2 % in Cyprus to 7.4 % in Ireland, while those both in severe material deprivation and living in a household with very low work intensity accounted for relatively few people in Luxembourg but 6 % of the population in Latvia.

The intersection of all three components (at-risk-of-poverty, severely materially deprived, and living in a household with very low work intensity – segment 4 in the above schematic diagram) was experienced by 1.5 % of the total EU population (or 7.5 million people) in 2010, remaining broadly stable in comparison with the share in 2008. However, substantial rises in the population shares (in excess of 1 pp) were recorded in Latvia, Lithuania and Slovakia, with the rise in Latvia almost 3 pps (see Table 1, where the number in parenthesis in the column heading refers to the segment code in the preceding schematic diagram, and Chart 27). There are also signs of the shares having risen noticeably in Estonia, Hungary, Ireland and Portugal. In Latvia almost 5 % of the population was in this situation in 2010, while Bulgaria, Hungary, Lithuania and Slovakia also had sizeable shares of close to 3 % or more.

At the level of the EU as a whole, the population in the cross-section of all three components is fairly evenly split between men and women while, in terms of age groups, children (aged <18) account for 28 % and those of working age (18-64) the other 72 % (note that the elderly are not included since the low work intensity component only covers the age rage 0-59).

Details of the propensity at EU level of people to be in one of the above cases of multiple disadvantage (i.e. in the different intersections of the poverty, severe material deprivation and very low work intensity household components of the overall poverty or social exclusion indicator) according to various characteristics are shown in Table 2. This shows the share of sub-populations by various characteristics in the respective situations in 2008 and 2010, together with the changes in the share between these years. For comparison, the same information is provided for the overall population at-risk-of-poverty-or-social exclusion (i.e. in the union of all components), with the same breakdowns.

The main issues identified from this table can be summarised as follows:

- In terms of age groups, children have the highest tendency to not only be at-risk-of-poverty-or-exclusion, but also to experience multiple disadvantage in the sense of having higher propensity to be in the intersections of the components of the poverty or social exclusion indicator compared to other age groups. Furthermore, their situation worsened more than for any other age group (in terms of percentage point increases) between 2008 and 2010 in most intersections (especially the one combining being at-risk-of-poverty and living in a very low work intensity household). In contrast, the tendency for the elderly to be at risk has reduced, while generally already facing a lower propensity to be in the disadvantaged populations compared to other age groups (although this

partly reflects the fact that they are not in the low work intensity component by definition).

- Women face a greater overall risk than men of poverty and social exclusion but risks of being subject to multiple disadvantage are generally similar. However, the position of men has generally worsened more markedly than for women since 2008.

- The low-skilled clearly face a much higher risk of poverty or social exclusion than average, and the high-skilled a much lower risk, and this also applies to the cases of multiple disadvantage. Furthermore, although the overall risk of poverty or exclusion for the low-skilled fell slightly between 2008 and 2010, for most cases of multiple disadvantage the risks actually rose noticeably for this group.

- In terms of household types, people living in single parent households are most likely to face poverty or social exclusion and multiple disadvantage. Among single person households, women face a higher risk of poverty or social exclusion than men, but men face a markedly greater risk of experiencing multiple disadvantage, and their position has worsened markedly since 2008 compared with the overall improvement for single women. The presence of children leads to greater risk in all cases, including the risk of experiencing multiple disadvantage. Moreover, households with children have seen risks increase since 2008 in almost all cases, while those without children (excluding single males) have often seen their situation improve.

- Non EU-27 nationals face much greater risks of multiple disadvantage (especially the combinations of poverty and severe material deprivation and of poverty and living in a very low work intensity household) than nationals of the country or other EU nationals, and these risks have worsened since the crisis much more for this group than for other groups.

Above all, the low-skilled, those living in single parent households, men living alone, third country migrants and, to some extent, children, face considerably greater risks of multiple disadvantage, and apart from single parent households, their risks have generally worsened most since the beginning of the crisis. This can be seen, for example, in Chart 28, which shows the case of suffering all three components of poverty, severe material deprivation and living in a very low work intensity household.

Table 1: Summary of the shares of the population in various overlaps of the AROPE components and the changes 2008-2010

	AROP and SMD but not LWI (3)		AROP and LWI but not SMD (2)		SMD and LWI but not AROP (7)		All 3 (4)	
	2010	Change 2008-2010	2010	Change 2008-2010	2010	Change 2008-2010	2010	Change 2008-2010
EU-27	2.3	-0.1	2.8	0.3	0.5	0.0	1.5	0.1
BE	1.2	-0.1	3.3	0.3	0.6	0.2	2.2	0.2
BG	10.9	-0.4	0.7	0.0	0.7	0.0	3.9	-0.2
CZ	1.3	-0.1	1.5	-0.3	0.2	-0.1	1.4	0.0
DK	0.4	0.0	2.7	0.4	0.8	0.3	0.8	0.5
DE	1.1	-0.3	3.9	0.1	0.4	-0.2	1.6	-0.1
EE	2.8	**0.8**	2.9	**0.7**	0.4	0.3	1.9	**0.8**
IE	0.3	-0.3	5.2	**1.4**	2.8	**1.5**	2.2	**0.6**
EL	6.1	**0.9**	1.2	0.1	0.4	0.1	1.0	-0.1
ES	1.4	0.4	3.5	**1.3**	0.1	0.0	0.9	0.5
FR	1.5	0.4	2.6	0.5	0.3	-0.2	1.5	0.3
IT	2.3	-0.4	2.7	0.1	0.3	0.0	1.4	0.1
CY	2.9	0.4	1.4	0.3	0.3	0.1	0.6	-0.2
LV	7.4	-1.7	1.9	**0.7**	1.0	**0.9**	4.9	**2.7**
LT	5.2	**0.6**	2.1	**0.7**	1.2	**1.0**	2.6	**1.3**
LU	0.3	0.0	2.0	0.4	0.0	0.0	0.1	-0.1
HU	3.3	0.5	1.5	-0.5	1.7	0.2	3.4	**0.7**
MT	1.2	**0.8**	2.8	0.0	0.3	-0.1	1.3	0.1
NL	0.2	0.0	1.8	-0.2	0.7	0.4	0.6	0.1
AT	1.2	-0.1	2.0	0.4	0.2	-0.3	1.2	-0.2
PL	4.3	-0.4	1.5	0.2	0.4	-0.5	1.8	-0.1
PT	2.2	-1.0	2.1	**0.7**	0.4	0.2	1.7	**0.6**
RO	10.9	-0.9	0.8	-0.1	1.1	-0.1	1.7	-0.7
SI	1.5	-0.1	2.1	0.2	0.1	-0.1	1.1	0.0
SK	1.9	-0.3	1.3	0.4	0.7	0.2	2.7	**1.4**
FI	0.6	-0.4	3.2	**0.8**	0.4	0.0	0.9	0.1
SE	0.2	-0.1	2.3	0.5	0.1	-0.1	0.5	0.2
UK	0.6	-0.4	4.4	0.5	1.1	0.3	1.4	0.2

Source: Eurostat, EU-SILC.
Note: Changes above 0.5 pps highlighted in bold.

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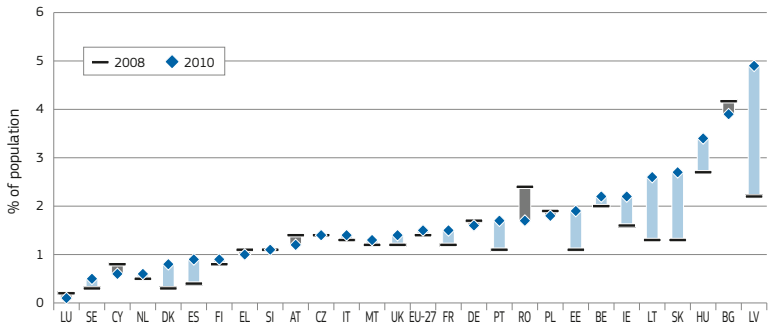
Chart 27: Change in the population share of all three components AROP, SMD and LWI between 2008 and 2010



Source: Eurostat, EU-SILC.
Note: Grey bars indicate declines and blue ones increases.

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Table 2: Propensity to be in the multiple disadvantage intersections by various population characteristics for the EU, 2010 (share (%) of respective population subgroups in the identified intersection)

Share of given population group:	In intersection of all 3 (AROP/SMD/LWI i.e. segment 4)			In intersection of AROP and SMD (segments 3 and 4)			In intersection of AROP and LWI (segments 2 and 4)			In intersection of SMD and LWI (segments 4 and 7)			In the union of all 3 (AROPE)		
	2008	2010	*change*	2008	2010	*change*	2008	2010	*change*	2008	2010	*change*	2008	2010	*change*
Total	**1.4**	**1.5**	**0.1**	**3.8**	**3.8**	**0**	**3.9**	**4.3**	**0.4**	**1.9**	**2**	**0.1**	**23.5**	**23.4**	**-0.1**
.....for sub-populations															
Age															
Child (< 18 yrs)	2.1	2.2	***0.1***	5.2	5.1	***-0.1***	5.5	6.3	***0.8***	2.7	2.9	***0.2***	26.1	27	***0.9***
Working age(18-64 yrs)	1.6	1.7	***0.1***	3.7	3.7	***0***	4.5	4.9	***0.4***	2.2	2.3	***0.1***	22.8	23.3	***0.5***
Elderly (65+)	na	na	***0***	3	2.5	***-0.5***	na	na	***0***	na	na	***0***	23.2	19.9	***-3.3***
Sex															
Men	1.4	1.6	***0.2***	3.6	3.8	***0.2***	3.8	4.3	***0.5***	1.9	2.1	***0.2***	22	22.3	***0.3***
Women	1.4	1.5	***0.1***	4	3.9	***-0.1***	4	4.5	***0.5***	2	2	***0***	24.9	24.5	***-0.4***
Education level (population aged 18 and over)															
Low	1.9	2.3	***0.4***	6.1	6.1	***0***	4.7	5.6	***0.9***	2.5	3	***0.5***	33	32.5	***-0.5***
Medium	1.2	1.2	***0***	3	3	***0***	3.5	3.7	***0.2***	1.8	1.7	***-0.1***	21.5	21.5	***0***
High	0.4	0.4	***0***	0.8	0.9	***0.1***	1.9	1.9	***0***	0.6	0.6	***0***	10.5	10.7	***0.2***
Income quintile															
1st	6.9	7.6	***0.7***	18.8	18.8	***0***	19.4	21.8	***2.4***	7.6	8.3	***0.7***	85.4	85.4	***0***
2nd	0	0	***0***	0.5	0.2	***-0.3***	0	0	***0***	1.3	1.4	***0.1***	16.4	15.9	***-0.5***
3rd	0	0	***0***	0	0	***0***	0	0	***0***	0.5	0.4	***-0.1***	8.8	8.6	***-0.2***
4th	0	0	***0***	0	0	***0***	0	0	***0***	0.1	0.2	***0.1***	4.8	4.9	***0.1***
5th	0	0	***0***	0	0	***0***	0	0	***0***	0.1	0	***-0.1***	2.6	2.5	***-0.1***
Household type															
Single person	2.3	2.6	***0.3***	6.1	5.9	***-0.2***	6.4	7.2	***0.8***	3.2	3.5	***0.3***	34.5	33.7	***-0.8***
Single person with dependent children	6.8	6.1	***-0.7***	10.7	9.9	***-0.8***	18.9	20.2	***1.3***	10.2	8.8	***-1.4***	50.5	51.7	***1.2***
Single female	1.6	1.7	***0.1***	6.1	5.3	***-0.8***	4.7	5.1	***0.4***	2.4	2.4	***0***	36.7	34.2	***-2.5***
Single male	3.2	3.7	***0.5***	6	6.5	***0.5***	8.7	9.9	***1.2***	4.2	4.9	***0.7***	31.5	32.9	***1.4***
Two or more adults without dependent children	0.6	0.7	***0.1***	2.1	2	***-0.1***	2.2	2.3	***0.1***	1	1.1	***0.1***	19.1	17.9	***-1.2***
Two or more adults with dependent children	1.3	1.5	***0.2***	4	4.1	***0.1***	3.2	3.7	***0.5***	1.6	1.9	***0.3***	21.7	22.2	***0.5***
Households without dependent children	1.1	1.2	***0.1***	3.2	3	***-0.2***	3.4	3.6	***0.2***	1.7	1.7	***0***	23.1	22.1	***-1.0***
Households with dependent children	1.7	1.9	***0.2***	4.5	4.6	***0.1***	4.4	5.2	***0.8***	2.2	2.5	***0.3***	24.1	24.7	***0.6***
Nationality (population aged 18 and over)															
Nationals	1.2	1.3	***0.1***	3.5	3.3	***-0.2***	3.4	3.7	***0.3***	1.7	1.8	***0.1***	22.5	22	***-0.5***
EU-27 foreigners	0.9	1.2	***0.3***	2.6	3.1	***0.5***	3.2	4.9	***1.7***	1.1	1.7	***0.6***	22.9	25.6	***2.7***
Non EU-27 foreigners	2.7	3.8	***1.1***	7.6	10.2	***2.6***	7.2	10.7	***3.5***	3.2	4.9	***1.7***	39.4	41.8	***2.4***

Source: Eurostat, EU-SILC.

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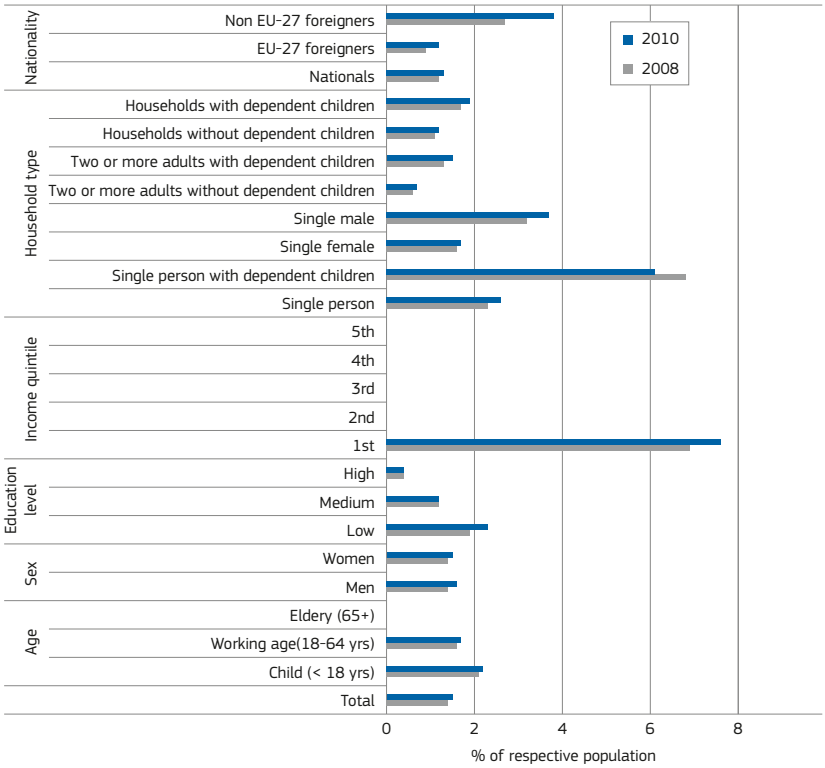
Chart 28: Shares (%) of respective EU population subgroups in the situation of being in all three components of AROPE (poverty, severe material deprivation and living in a very low work intensity household), 2008 and 2010



Source: Eurostat, EU-SILC.

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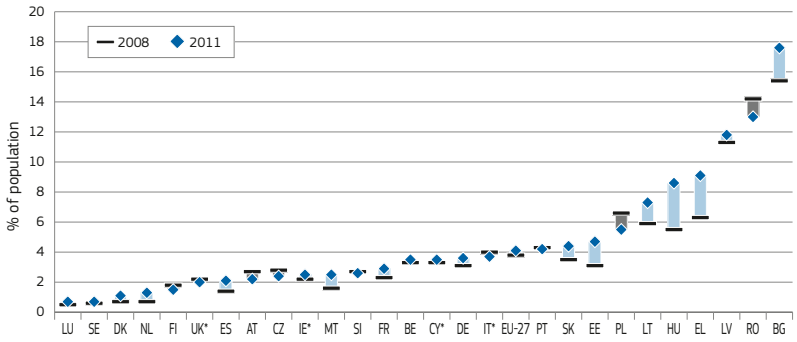
Box 2: The intersection of AROP and SMD (a sort of 'Consistent Poverty' measure)

The intersection between the population at-risk-of-poverty – based on the traditional relative income measure – and those suffering from severe material deprivation – based on lack of access to basic resources – is a combined income-deprivation measure of poverty, which focuses on people whose income falls below the relative income poverty line and who also experience severe material deprivation. As such it is similar (but not identical) to the approach used to measure 'consistent poverty' in Ireland[(1)].

Chart 29: Change in the population share both at-risk-of-poverty and experiencing severe material deprivation between 2008 and 2011



Source: Eurostat, EU-SILC.

Note: Grey bars indicate declines in the poverty gap and blue ones increases. *Figures for CY, IE, IT and UK are for 2010 instead of 2011. 2011 figure for EU-27 is Eurostat estimate.

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(1) In Ireland this measure identifies the proportion of people from those with an income below 60% of the median income who are deprived of two or more goods or services considered essential for a basic standard of living.

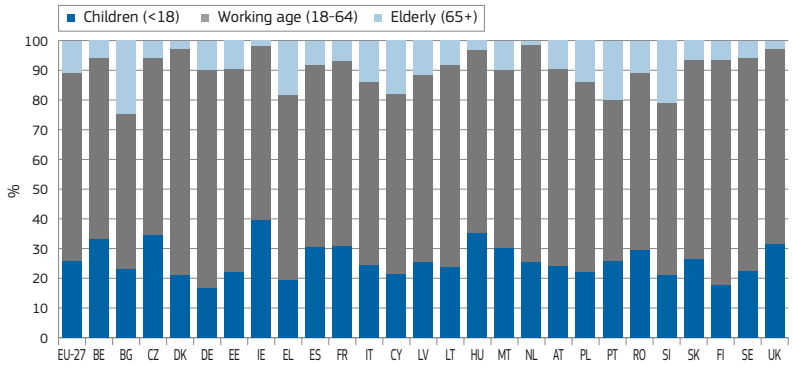
In 2011, the number of people who were both at-risk-of-poverty and suffering severe material deprivation amounted to around 4% of the EU population (or around 20 million people) – a share that had changed little since 2008. For many individual Member States the share also changed little over this period, although there were significant increases in some, with rises of the order of 1 pp or more in Bulgaria, Estonia, Lithuania, Malta and Slovakia, and around 3 pps in Greece and Hungary (Chart 29). In Poland and Romania, on the other hand, the share has declined since 2008. Nevertheless, Romania remains one of the Member States with the highest shares of the population in the combined poverty situation, at around 13%, with Bulgaria (18%) and Latvia (12%) being the only other Member States with a share greater than 10%.

In most individual countries, and at EU level overall, the population in "consistent poverty" is fairly evenly balanced between men and women. However, in 2010, women accounted for considerably more than half of the affected population (between 55% and 60%) in Austria, Bulgaria, Ireland, the Netherlands and Slovakia, but considerably less (only 41%) in Denmark.

The composition by age group also shows marked variation across countries (see Chart 30). At EU level overall, 26% of those suffering both poverty and severe material deprivation were children aged under 18, 63% were people of working age, namely aged 18-64, and 11% categorised as elderly, being 65+. However, children account for around a third of the total in Belgium, the Czech Republic and Hungary, and almost 40% in Ireland, while in Finland, Germany and Greece their shares are below 20%.

In Cyprus, Greece, Portugal and Slovenia the elderly account for 18% or more of the population, while in Bulgaria they make up around 25%. In several Member States (including Denmark, Ireland, Hungary, the Netherlands and the United Kingdom), however, the elderly account for only 3% or less.

Chart 30: Composition of the population at-risk-of-poverty and experiencing severe material deprivation by age group, 2011



Source: Eurostat, EU-SILC.

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Box 3: Europe 2020 risk of poverty or social exclusion indicator from a longitudinal perspective

As highlighted in Box 1, the poverty headline target of the Europe 2020 strategy is based on three sub-indicators: the at-risk-of-poverty rate; the severe material deprivation rate; and the rate of very low work intensity. The computation of the two first indicators is possible from a longitudinal perspective, as the variables required are taken over in the longitudinal component of the EU-SILC, but for the third indicator (very low work intensity), the EU-SILC Regulation does not require that part of the information necessary be included in the longitudinal datasets, which hampers the longitudinal analysis of the poverty headline indicator.

Eurostat is currently investigating the possibilities of obtaining the necessary data from the Member States in order to allow the Europe 2020 poverty headline indicator to be monitored from a longitudinal perspective. Meanwhile, social exclusion is approximated in this part of the chapter by the material deprivation dimension in combination with the risk of poverty, as done in many research papers (Korpi, Nelson and Stenberg, 2007, Berthoud, Bryan and Bardasi, 2004, Devicienti and Poggi, 2007, Walker and Tomlinson, 2009).

In this part of the analysis, material deprivation is used in preference to severe material deprivation because it offers a much larger sample size given that these are much smaller in the longitudinal SILC database (see Box 4 on the EU-SILC), and the level of severe material deprivation is very low in some Member States.

4. Dynamics of poverty and deprivation: from short spells of poverty to persistence[14]

The temporal dimension of poverty and social exclusion is a key dimension to better understand the varying nature of poverty and processes leading to it. The time spent in poverty – or deprivation – differs a lot between individuals and countries. Some individuals might be at risk of experiencing a downward spiral and be trapped in a process of long-term exclusion while others might easily get out of poverty.

This section focuses on the diversity of individual trajectories regarding the risk of poverty and deprivation. It focuses on the propensity for individuals to fall into or exit from the risk of poverty or deprivation over a four year period, and more specifically on the time spent in the risk of poverty situation by individuals between one year and another.

First, the value added of a dynamic approach to poverty will be discussed in a background section. Then, a 'long term' approach to the risk of poverty and deprivation will be discussed, although such an approach is limited by the length of the panel (four years). Third, overall evidence of the dynamics of poverty and deprivation across Member States will be presented. Special attention will be paid to the year-to-year transitions in and out of poverty.

The main results show that poverty is a more fluid phenomenon than one might think, although considerable variation is observed between Member States. The risk of falling into poverty or exiting from it from one year to another greatly varies across individuals. As a result of these entries or exits – or non-exits – some individuals might be trapped for a long time in poverty (persistent poverty) while others might escape more easily.

As the risk of poverty or social exclusion indicator is not yet available at EU level from a longitudinal perspective (see Box 3), the focus is placed on exploring the dynamics of poverty and material deprivation. These have very often been used in the literature to proxy the broader notion of 'poverty and social exclusion' (Berthoud et al., 2004).

For the sake of clarity, the results will also be focussing on the working age population only. Indeed, processes affecting the working age population are very different from those affecting the elderly. The working age population has fluctuating incomes depending on factors such as labour market status, child birth or changing household composition. On the other hand, incomes among the elderly population rely on pensions and depend on different factors, such as changes in pensions or the death of partner. Lastly, the situation of children depends directly on the working age adults' situation. For these reasons, it is preferable to look at these populations in a separate manner. Since working age adults' populations have been strongly affected by the crisis in many countries, the emphasis is put on this population. Analyses of the processes for the other parts of the population can be envisaged at a later stage.

The available data refers to the period 2006-2009, which is the latest available. Hence, it does not reflect the impact of the crisis. However, this data contributes to better knowledge of the national structural frameworks just before the crisis.

4.1. Poverty and social exclusion as dynamic events

Analysing the dynamics of poverty is intended to complement the picture derived from cross-sectional data. Information on transitions into and out of poverty can help to identify how exposure to the risk of entering into poverty or the chances of getting out of it varies across Member States and individual profiles. Moreover, longitudinal data is useful to assess how secure the exits from poverty are.

Early studies using longitudinal data appeared in the US during the 1970s based on the Panel Study of Income Dynamics. They contributed largely to testing the hypothesis of an 'underclass' of poor (Harrington, 1962). Based on this survey, several researchers demonstrated that this static representation was misguided (Bane & Elwood (1986); see also Lillard and Willis (1978), Levy (1977), Gottschalk (1982), Coe et al. (1982), Coe (1978) and Rainwater (1982)).

The ins and outs of poverty were analysed by Hill (1981), Levy (1977), Boskin and Nold (1975), Hutchns (1981), Plotnick (1983) and Wiseman (1976). During the last two decades, the growing availability of longitudinal data on incomes has helped to address and develop these issues in the European context with the Living in Ireland survey, the British Household Panel Survey in the United Kingdom, the German Socio-economic Panel, the Scandinavian register data and, at EU level, the European Community Household Panel (ECHP) in the 1990s.

Research based on these surveys has served to demonstrate that the population facing poverty is essentially made up of both a body of permanently poor people and a rotating number of individuals who experience shorter spells of poverty. Another consistent finding from these studies is that earnings play a dominant role regarding entries into and exits from poverty (Fouarge and Layte, 2005). Research based on international surveys such as the ECHP have also highlighted the impacts of different welfare state models (Fouarge and Layte (2003)) while another branch of research has investigated the role of structural factors and trigger events in poverty dynamics (Vandecasteel (2010)).

(14) This part of the Chapter has benefited from the output of a workshop on 'The use of longitudinal EU-SILC data', organised by Statistics Austria on behalf of the Net-SILC 2 network. The authors are grateful to the organisers, and take full responsibility for any potential errors.

Box 4: EU-SILC longitudinal component: a unique tool for understanding poverty at EU level

The EU-SILC (Statistics on Income and Living Conditions) is the reference source at EU level for statistics on income and living conditions and for common indicators for social inclusion in particular. It is a household survey that provides a unique measurement of the risk of poverty, material deprivation and work intensity in Europe. Complementary information at individual and household level is also available and offers the possibility to better understand these dimensions. The sample size exceeds 400 000 individuals a year.

EU-SILC has a cross-sectional and a longitudinal component. The cross-sectional component gathers data on all individuals who have been interviewed during a single year. The longitudinal component refers to repeated observations for identical statistical units. Individuals are traced over four successive years.

The sample is organised following a rotational framework: every year, a quarter of the sample is new (interviewed for the first time), a quarter is interviewed for the second time, a quarter for the third time, and a quarter for the fourth time. This means that longitudinal information for a given four year framework is available only for a quarter of the sample. Longitudinal information for a two-year window is available for three quarters of the sample.

A four-year period is extremely short for fully observing long-term trajectories, such as the recurrence of poverty over time. Another limitation of the short length of the panel is that it does not really allow for left-censoring correction (see Box 5 on left censoring).

An option for coping with these drawbacks is to replace an approach based on trajectories by an approach based on transition. This implies working with a limited time-window, two years for example. This makes it possible to cover a larger number of individuals. However, long-term trajectories such as persistence and recurrence of poverty cannot be considered.

The longitudinal component data is only available some four years after the initial date of its collection, and requires heavy data processing. Currently, the longitudinal component 2006-2009 is the most recently available longitudinal set of data. It follows 75 000 individuals aged 18-64 in 24 Member States over 2006-2009, and 223 000 individuals aged 18-64 in 26 Member States over the 2008-2009 period[(1)] (see Annex 1 for sample size by Member State).

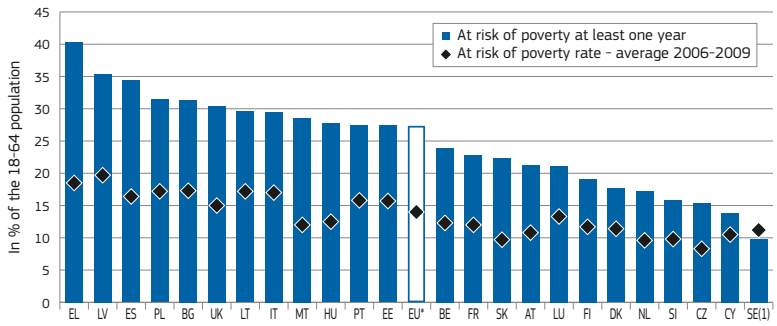
(1) Data for the following Member States is missing for the four-year panel in Romania and Ireland. It is not missing for the two year panel 2008-2009. Longitudinal data for Germany is missing for the whole period.

4.1.1. Experiencing spells of poverty or deprivation for at least one year over a long-term period is common

While considering a pluriannual period instead of a single year, it appears that the share of individuals who have been poor at least one year during the period is much greater than the risk of poverty rate measured in a single year. This means that a large share of people at-risk-of-poverty is poor for only a small period while others might remain poor for a longer period.

Among the working age population (18-64) in the EU-27 Member States for which longitudinal data is available, 27% had been at-risk-of-poverty for at least one year in the period 2006 to 2009, a much higher figure than the annual cross-sectional risk of poverty rate (14% on average between 2006 and 2009 in these same Member States, see Chart 31). Similarly, 28% of the population had been reported as suffering from material deprivation in at least one of the periods, which is, again, much higher than the average material deprivation rate of 17% during the period (see Chart 32).

Chart 31: Share of the population at-risk-of-poverty at least once during the period 2006-2009 and average risk of poverty rate



Source: EU-SILC LONGITUDINAL UDB 2009 – version 3 of August 2012 – DG EMPL calculations.

Note: (1) The average of the at risk of poverty rates is computed as the simple average of the annual risk of poverty rates over the period. For this reason, the average of the annual risks of poverty might be slightly above the rate of those who have been at risk of poverty at least one year, whereas it might be counterintuitive.
EU*: EU average for the 24 Member States for which data is available.

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The share of people aged 18-64 who have been poor at least once during the period ranges from 10% in Sweden and 14 to 16% in Cyprus, the Czech Republic and Slovenia, to 30% or more in the United Kingdom, Bulgaria, Poland, Spain, Latvia and Greece. The range is even stronger for material deprivation with more than 80% of the population having been deprived in at least one year during the period in Bulgaria, and 60% in Hungary and Latvia. This compares with the Netherlands, Sweden and Luxembourg, where 10% or less had been deprived at least one year during the four year period.

4.2. The incidence of the risk of poverty over time

Analysis of the risk of poverty of individuals over a four year period enables to measure how the process of poverty evolves over time (appearing, ending, lasting or reappearing).

This section addresses the various types of income trajectories that people might experience over time. Despite there being some limitations due to the data structure, it highlights the extent of these trajectories across the population, and the differences between Member States.

4.2.1. Various income trajectories over time

Income trajectories may follow various patterns. Several situations can occur between the two extreme states of either never being poor or always being poor. An individual can fall into poverty for various reasons – loss of a job or a separation, for example – and the ensuing poverty spell can last for a while (persistent poverty) or be extremely short (transient poverty). Symmetrically, an individual can escape from poverty through finding a job, or because another household member starts work, for example. However the position with regard to the poverty line can also be less clear-cut, with alternative movements above and below the poverty threshold (recurrent poverty, see Chart 33).

Usually, empirical work on income trajectories is based on four types of trajectories (see Muffels et al., 1999, Walker, 1994):

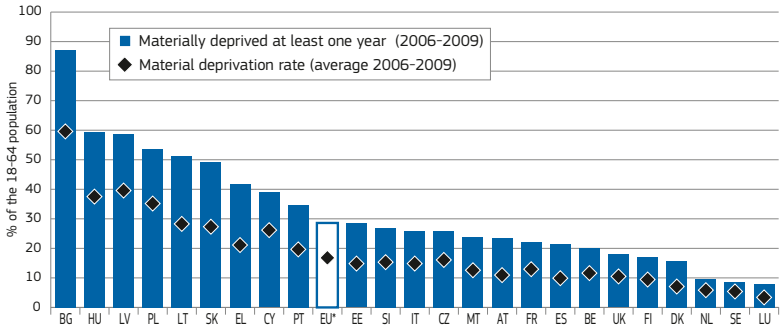
- persistent poverty: trajectories where poverty is experienced during the whole period or almost the whole period;
- recurrent poverty: trajectories where several spells of poverty occur during the period;
- transient poverty: trajectories where poverty is experienced only for a short spell;
- never poor: trajectories where poverty is never experienced over the whole period.

Empirically, in this analysis, four types of trajectories are identified with the EU-SILC longitudinal components, corresponding to mutually exclusive trajectories. The risk of persistent poverty is defined consistently with the definition of the EU-agreed indicator, namely the risk of poverty during the last year of the panel accompanied by at least two other years of poverty among the first three years (see Table 3).

Recurrent poverty is approximated by spells of poverty separated by at least one year out of the risk of poverty. Transient poverty is approximated by trajectories with only one spell of poverty. Trajectories of deprivation can be defined following a similar approach.

However, one must bear in mind that this typology of trajectories, as obtained from a four-year panel, has weaknesses, especially in the definition of transient and recurrent states (see Box 5 on left censoring).

Chart 32: Share of the population deprived at least once during the period 2006-2009 and average material deprivation rate



Source: EU-SILC LONGITUDINAL UDB 2009 – version-3 of August 2012 - DG EMPL calculations.
Note: EU*: EU average for the 24 Member States for which data is available.

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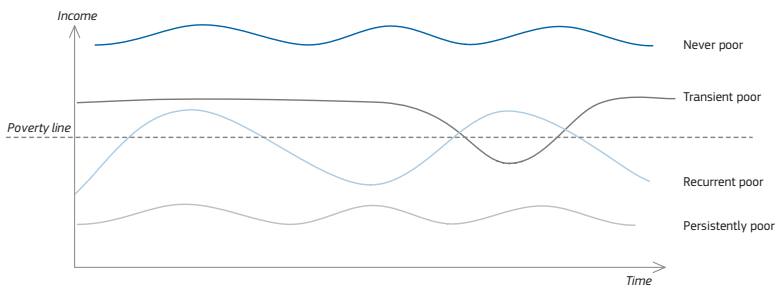
Chart 33: Types of poverty trajectories



Source: DG EMPL.

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Table 3: Trajectories of poverty defined with SILC

Poverty type	Trajectory	Illustration
Persistently poor	At-risk-of-poverty during the last year & at least two out of three other years	1-1-1-1
		0-1-1-1
		1-0-1-1
		1-1-0-1
Recurrently poor	Two non-consecutive risk of poverty spells during the period	(0-1-0-1)*
		(1-0-1-0)
		(1-0-0-1)*
Transient poor	At-risk-of-poverty during at least one year out of four	(0-0-0-1)*
		(0-0-1-0)
		(0-1-0-0)
		(1-0-0-0)*
Never poor	Never at-risk-of-poverty	0-0-0-0

Note: 1 stands for poverty spells and 0 for non poverty during the four-year period of observation, from left (first observation) to right (last observation). Trajectories within brackets have to be considered with caution, as they are not robust due to the short length of the period of observation. Trajectories with a star (*) indicate a possible issue of censoring.

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Box 5: The tricky treatment of left censoring in a four-year panel

A limitation which is especially problematic when measuring poverty trajectories is the censoring: it is not possible to know if a person who is at-risk-of-poverty during the first year of observation has been poor for a long period, or is experiencing her/his first spell of poverty. Symmetrically, a person not at-risk-of-poverty during the last year of the panel may, or may not, remain out of poverty for a short or long time.

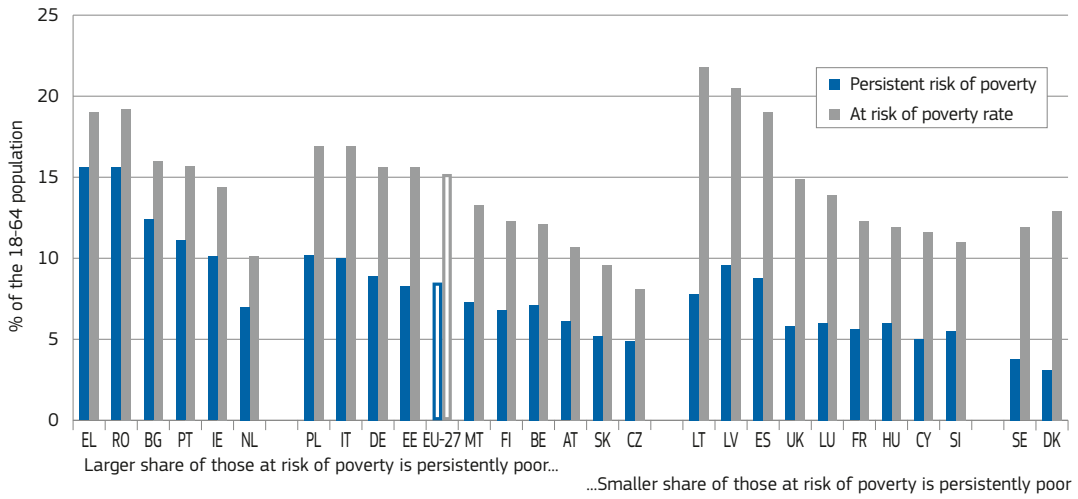
A technical option to limit this drawback is to begin the analysis during a slightly later wave of the survey, and use the first waves to examine information concerning the recent past of the person (see Fouarge and Layte, 2005, for example). However, this is not really possible when the observation period or sample sizes are small, which are two limitations of the EU-SILC. Moreover, many studies comparing the results taking into account the left censoring also often conclude that the results do not change much. The preferred option here has been not to remove these observations from the dataset used for the analysis in order to keep working with sufficient time windows and sufficient sample sizes. Lastly, the left censoring issue does not apply to the year-to-year transition rates.

4.2.2. Persistence of poverty

Short periods of poverty do not have the same long-lasting impact on individuals as long-term poverty. While short-term episodes of poverty can often be dealt with through the temporary use of savings, by borrowing or by reduced consumption, long-lasting poverty is much more likely to damage long-term life chances. Layte and Fouarge (2005) show that the time spent in poverty significantly reduces the chances to escape from it, while Korenman et al. (1994) show that the impact of income poverty over an extended period (13 years) on school outcomes is twice as high as the impact of a single year in poverty. For these reasons, the problems of individuals being persistently poor are of particular concern to policy makers.

In 2010, some 8.5% of the EU working age population was at persistent risk of poverty (see Chart 34). This share ranged from 15.6% in Romania and Greece, 12% in Bulgaria, and 10 to 12% in Italy, Poland, Portugal, Ireland and Latvia, to the lowest prevalence in Denmark (3%), Sweden (4%) and the Czech Republic, Slovakia and Cyprus (5%). However, pairs of Member States with similar cross-sectional risks of poverty, for example Spain and Greece, Portugal and Estonia, or Finland and Sweden, nevertheless have quite different shares of their poor population suffering from persistent poverty (and then suffering from less severe forms of poverty).

Chart 34: How many are persistently poor among those at-risk-of-poverty? Persistent poverty and risk of poverty rates by Member State



Source: Eurostat, EU-SILC, ilc_li21, 2010.

Note: Data for IE, FR are from 2007 and SK from 2009 (latest available).

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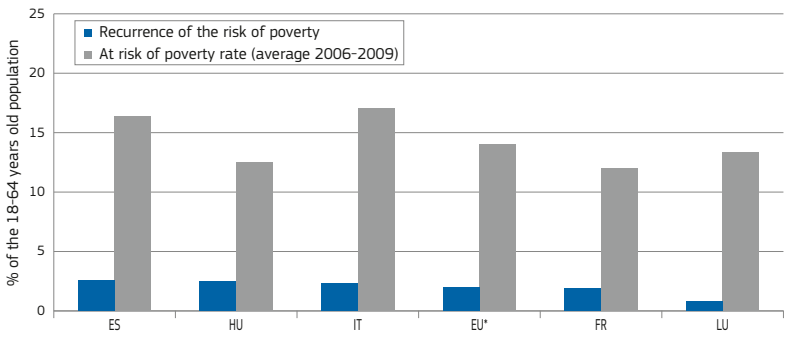
The overlap between persistent poverty and the risk of poverty differs a lot across countries. In some Member States, the overlap is quite high. This is especially the case in Romania, Bulgaria, Greece, Portugal and Ireland, where the risk of poverty itself stands at a high level. In these countries, at least three individuals out of four at-risk-of-poverty are persistently poor, characterising being firmly trapped in precarious situations. The share of persistent poverty among the population at-risk-of-poverty is also relatively high in the Netherlands and Austria, but the risk of poverty stands at a much lower level in these countries. At the opposite end of the scale, in Sweden and Denmark, the share of the population at-risk-of-poverty which is also persistently poor is more limited (from one quarter to one third of those at-risk-of-poverty), indicating a high churning of poverty.

4.2.3. Recurrent poverty: are exits from poverty stable over time?

The former section has contrasted the population subgroups in persistent poverty and those exposed to shorter spells of poverty. However, short spells of poverty are not necessarily a positive outcome. It might be symptomatic of recurrent poverty for a part of the population. Indeed, it might be either the same individuals who are permanently exiting out of poverty at a given time and entering back into it during the next period, or different individuals experiencing short poverty spells and durable exits. The recurrence of poverty is especially problematic as it is symptomatic of a risk of increased social polarisation, with those experiencing hardship being clearly distinct from the rest of society and unable to escape poverty in the long term.

Research work has already often highlighted the recurrence of poverty spells, with the fact of having been poor in the past largely determining the risk of being poor again in the future. Walker (2010) shows, with data from the United Kingdom, that 'people who fall into poverty at one stage in their lives, be it a single spell or repeatedly, are much more prone to experience poverty at a later date even after having taken account of other factors such as education, occupation, family situation and so on'.

Chart 35: Recurrence of the risk of poverty in selected Member States



Source: EU-SILC LONGITUDINAL UDB 2009 – version 3 of August 2012 – DG EMPL calculations.

Note: Due to limited sample sizes, results are available only in some Member States.
EU*: Average of the 24 Member States for which data is available.

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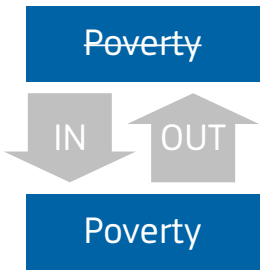
Over the four year period 2006 to 2009, 2% of working age Europeans were recurrently poor (see Chart 35). For those countries where the measurement of recurrence of poverty is possible[15], the risk of recurrent poverty is higher in Spain, Hungary, Italy, France and Luxembourg.

4.3. Ins and outs of poverty: divergent turnover across Member States

Data collected over a four year period provides a better understanding of the extent to which poverty and deprivation are spread among individuals. It also helps to monitor persistent poverty. However, the limited duration of the observation period makes it difficult to picture the recurrence and transience of poverty. A simple and complementary approach to examining the dynamics of poverty consists of analysing the transitions into and out of poverty between one year and another.

This section estimates this risk at national level and shows that there is great divergence across Member States. The risk of falling into poverty is measured as the share of those who were not in poverty one year earlier but fell into poverty in the following year (see Chart 36). Symmetrically, the chance of getting out of poverty is defined as the share of individuals not at-risk-of-poverty among those who were at-risk-of-poverty the year before. Rates of entry to and exit from deprivation can be defined similarly.

Chart 36: Framework to analyse poverty transitions



Source: DG EMPL.

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4.3.1. Turnover into and out of the risk of poverty

Between 2008 and 2009, some 6% of the EU population as a whole was likely to have fallen into poverty from one year to another, while 40% of the population at-risk-of-poverty in 2008 had managed to exit from poverty by the following year[16]. These rates have been relatively stable over the period (see Annex 1).

(15) The figures on the recurrence of poverty, as measured through the EU-SILC instrument, have to be used with caution, since measures of the recurrence of poverty are based on limited periods of observation (four consecutive years here) and are more likely to suffer from measurement error than those based on longer panels, as underlined by Berthoud (2004).

(16) The entry rate into poverty (resp. deprivation) at time t is defined as the ratio (A/B) between (A) the number of individuals not at-risk-of-poverty (resp. non deprived) at time t-1 *and* who are at-risk-of-poverty at time t (resp. deprived) and (B) the number of individuals who were not at-risk-of-poverty at time t-1. Symmetrically, the exit rate is defined as the ratio between (A) the number of people who are not at-risk-of-poverty (resp. deprived) at time t *and* who are at-risk-of-poverty (resp. deprived) at time t-1 and (B) the number of individuals who were at-risk-of-poverty (resp. deprived) at time t-1. The value of the exit rate is much higher than the value of the entry rate, because it refers by definition to populations which are of different sizes (the population not at-risk-of-poverty for the first, the population at risk in the second).

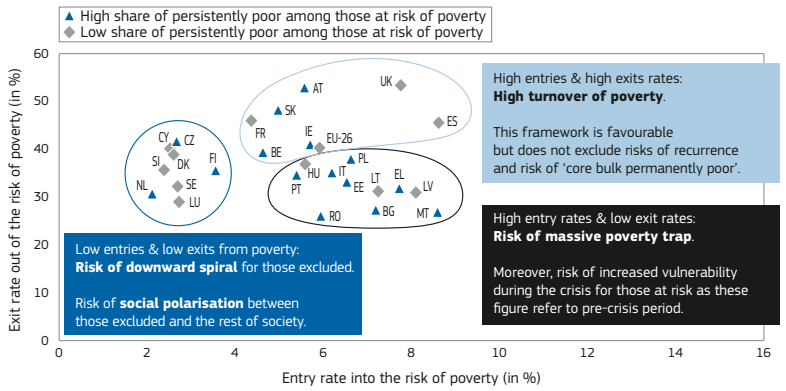
However, the combination of entry and exit rates varies considerably between the Member States. Three main patterns emerge regarding the variation of poverty transitions across Member States (see Chart 37).

In the first group of countries, which is most clearly represented by the United Kingdom and Spain, but also includes to a lesser extent Belgium, France, Ireland, Austria and Slovakia, both entry and exit rates are high. This means that in these countries, the chances of getting into poverty are high, but the chances of getting out of poverty are also high. As the length of poverty spell matters when dealing with issues such as exclusion, this outcome seems relatively positive.

However, it is not enough to conclude that these countries experience good outcomes in dynamically addressing poverty issues. Indeed, poverty can also be recurrent in these countries, with a risk for people repeatedly going in and out of poverty with insecure prospects. Moreover, such a high overall churning in poverty at national level may actually reflect two groups, with one experiencing high rotation, and another remaining in poverty for very long periods. These questions will be addressed later.

The second group of countries (consisting of Bulgaria, Estonia, Greece, Italy, Latvia, Lithuania, Hungary, Malta, Portugal, Romania and Slovakia) shows both a high risk of entering poverty, and low chances of escaping poverty. This situation is problematic from a policy point of view, as it reflects a high risk of being trapped in poverty. Individuals falling into poverty have limited chances to get out of it in the following years. These countries should both address better prevention of poverty, and promote policies aiming at pulling individuals out of poverty. As these figures refer to pre-crisis years, this situation is extremely problematic. It underlines that these countries were already fragile before the shock regarding the ability of their welfare state and labour market to provide individuals with opportunities to escape poverty. Recent figures already available (see section 3-2) already show signs of a strong impact and increased vulnerability among these Member States.

Chart 37: The churning of poverty – Rates of entry to and exit from the risk of poverty among the 18-64 population



Source: EU-SILC LONGITUDINAL UDB 2009 – version 3 of August 2012 – DG EMPL calculations.

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The third group of countries (the Czech Republic, Cyprus, Denmark, Luxembourg, the Netherlands, Slovenia, Finland and Sweden) shows signs of both low entry and low exit rates. Despite poverty affecting a smaller part of the population in these countries, the situation remains symptomatic of a poverty trap. In this configuration, persistence of poverty in the mid- to long-term is likely to be high.

This information can be combined with the evidence on persistent poverty. Indeed, among each combination of entry and exits from poverty, different levels of persistence might exist (see Chart 37). In the first group of countries, where high mobility rates prevail, a warning has been advanced against a risk of partial mobility co-existing with a more mobile population. This tends to be the case in Belgium, Austria, Ireland and Slovakia, where a high share of people at-risk-of-poverty are also persistently poor while the rest of those at-risk-of-poverty experience a high churning of poverty. However, this is not the case in the United Kingdom, France and Spain, where persistent poverty represents a smaller part of the population at-risk-of-poverty.

In the second group, where rates of entry into the risk of poverty were high and rates of exit from the risk of poverty were low, there are signs of low mobility and poverty hysteresis in most countries. In Latvia and Lithuania, the share of persistently poor across the population at-risk-of-poverty differs across years. It is lower in 2010 due to numerous entries into poverty after the crisis; the share of persistently poor within the population increased to higher levels in 2008 and 2009.

In the third group, low risks of entering into poverty are combined with low exit rates. In the Czech Republic, Finland and the Netherlands, this turns out to be a sign of social polarisation, as the share of persistent poor is high compared to the risk of poverty. In contrast, there is a greater churning in Cyprus, Denmark, Luxembourg, Slovenia and Sweden.

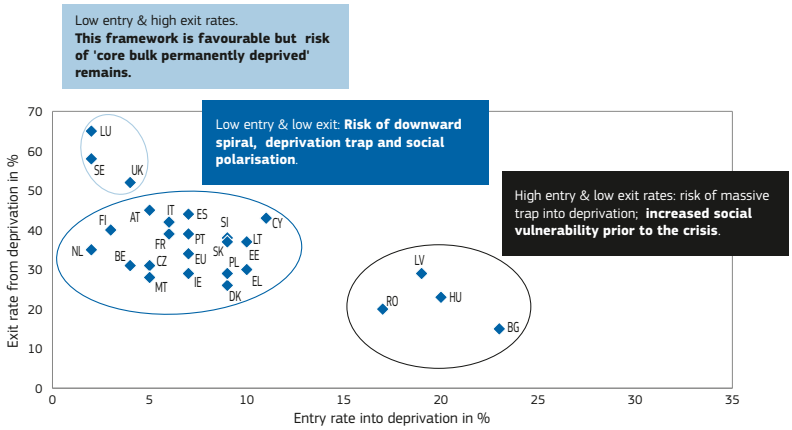
Section 5 will enter into more detail about individual profiles and will put forward some evidence to relate the churning of poverty and size of persistence within the population to individual characteristics.

4.3.2. Turnover into and out of deprivation

The risk of poverty might sometimes be considered as volatile from a temporal perspective. For this reason, it is interesting to cross the results with those regarding transitions into and out of material deprivation, which can play the role of a complementary measure of economic hardship.

In terms of material deprivation, on average, between 2008 and 2009, 7 % of the EU population that had not been deprived the year before became deprived and, symmetrically, among those who were deprived in 2008, 34 % ceased to be deprived the following year.

Chart 38: Combination of rates of entry and exit from deprivation among the 18-64 population



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Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012 – DG EMPL calculations.

With regard to the risk of material deprivation, entry and exits rates can also be presented with a diagram (see Chart 38). The grouping of Member States differs slightly from the one concerning the risk of poverty due to the difference in the reference period for income and deprivation and the fact that the spread of material deprivation rates among the EU is much higher than the spread of the risk of poverty, with generally higher rates of entry (and lower rates of exit) in the new compared with the old Member States. Moreover, material deprivation has decreased markedly in several new Member States in Eastern Europe since 2005, due to rising living standards resulting from high rates of economic growth.

As regards deprivation, the first group (Luxembourg, Sweden and the United Kingdom) is characterised by a strong churning of deprivation, combining a moderate risk of entering into deprivation, and strong probability of exiting. This tends to show moderate chances of hysteresis.

At the opposite end of the scale, the second group (Bulgaria, Hungary, Latvia and Romania) is characterised by a high risk of entering into deprivation combined with only a moderate chance of escape. This tends to show that deprivation in these countries is a more static state. In these countries, there is a risk of being trapped in deprivation when entering into it.

The third group, bringing together the rest of the Member States, combines the low risk of entering into deprivation and low chances of exiting it. In these countries, the deprived population has greater chances of being set apart or excluded from the rest of society.

5. Individual profiles and the dynamics of poverty

The population at-risk-of-poverty (or deprived) at a given point in time is a mixture of different underlying situations in the sense that some individuals will experience short spells of poverty – or deprivation – and others will remain in hardship for longer periods. This has implications for policy response.

This section will examine in detail the characteristics of the individuals at-risk-of-poverty and their relation with the length of time spent in poverty. It begins with a theoretical discussion of the trigger events or risk factors analysed in the literature and the role of the welfare state and labour market institutions in addressing these. Then, profiling of people having experienced poverty will be discussed, with special attention paid to the likelihood of persistent poverty among each of these profiles.

The results show that the profiles of people having experienced poverty at least once over a four year period vary across Member States.

5.1. Individual characteristics and the process of exclusion

The length of time that people spend in poverty is closely associated with their individual characteristics or life circumstances. Spells of poverty have been widely explained in past literature using social stratification models (see Taylor-Gooby). Factors such as gender, social class, education, health status, and labour market characteristics strongly influence the chances of entering or exiting poverty. More recently, a further explanation of poverty has emerged, based on specific individual rather than on social class determinants (see Beck, and further research). Now, current research work is seeking to reconcile both approaches, concluding that the experience of poverty depends on both structural and individual factors which can be mutually reinforcing (Vandecasteel, 2011, Wheelan & Maitre, 2008).

Life events and individual factors increasing the vulnerability of individuals are of four main types (see Chart 39): Family related events such as child birth, partnership dissolution or formation, or departure from the parental home for young adults can result in decreases in income per capita in the household and lead to spells of poverty. Health related events such as spells of inability to work, disability or incapacity can also result in earning losses that need to be compensated. Third, labour market risks including events such as job loss or low job security due to precarious labour markets, might result in sudden loss of earnings or persistently low and irregular incomes. Lastly, loss of human capital can also be considered as a life risk. Skills obsolescence due to labour market structural changes or loss of employability after long spells of unemployment can be drivers of poverty spells.

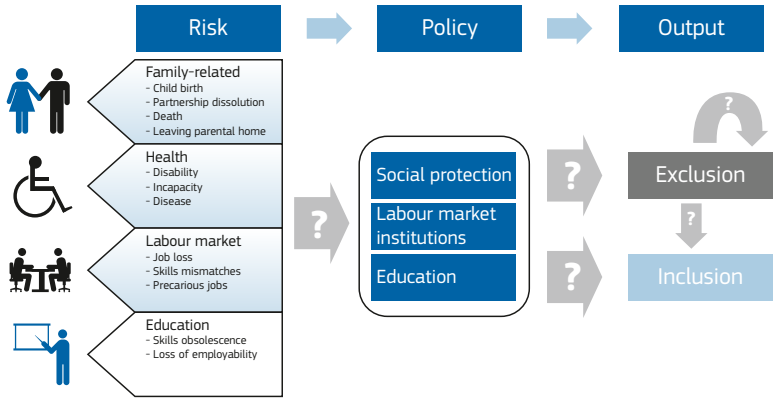
The impact of these various risks can be avoided through well-functioning labour market institutions and social protection schemes. Inclusive labour markets might contribute to limiting entries into poverty and sustaining lasting exits from poverty by providing living wages, sufficient working hours to get an adequate income and adapted workplaces. Welfare provision can prevent the risk of entering into

poverty through well-designed income support schemes, adequate and inclusive unemployment insurance and social assistance. However, welfare provisions can also carry disincentives that may delay the return to employment and lasting exit from poverty. Chapter 1 has illustrated how labour market institutions and welfare state support can help the return to employment of the long-term unemployed. Lastly, providing support services contributes to the fight against poverty by supporting active social participation.

As an illustration of the impact of labour market events, Fouarge and Layte (2003) show that the majority of transitions into and out of poverty are mainly due to decreases or increases in incomes from work rather than to changes in the number of dependant household members. The EU-SILC data on the rates of entry into and exit from poverty broken down by household activity status at the end of the observation period show clear differences regarding the turnover of the risk of poverty (see Chart 40). Households with two working adults, either full time or part time, are much less likely to fall into poverty and have higher chances of getting out of it. In contrast, households with a disabled individual, a single earner, or singles, face a much higher risk of entering into poverty, and low chances of exiting from it. Lastly, households with one unemployed and one working person face a more balanced situation.

As another illustration, health status is also strongly linked to poverty. Health problems might prevent people from fully participating in the labour market or facing potential discrimination. Even if the direction of causality may be uncertain, a vicious downward cycle linking poverty to health problems has often been highlighted and, while ill health may sometimes be a cause of poverty, evidence suggests that poverty is also often a causal factor of sickness or illness (see Commission on the Social Determinants of Health, 2008; Gordon et al., 1999; Leon & Walt, 2001; Power et al., 1991, 1996; Shaw et al., 1999; Wilkinson 1996, 1999).

Chart 39: Links between life events, the welfare and exclusion



Source: DG EMPL.

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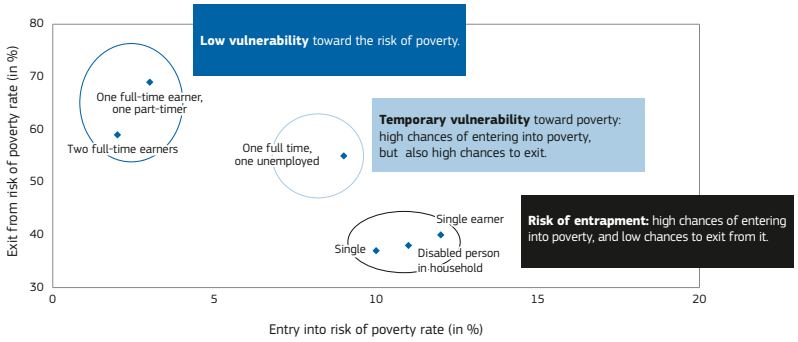
Chart 40: Combination of risk of entering and exiting poverty differs across the extent of household labour market participation



Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012 – DG EMPL calculations.

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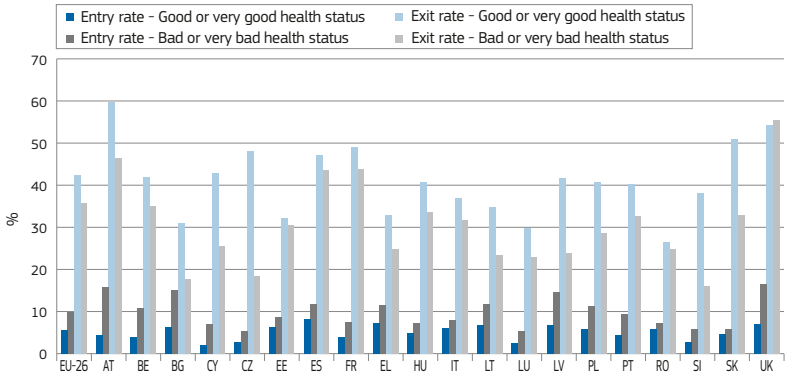
Chart 41: Rates of entry into and exit from the risk of poverty by health status



Source: EU-SILC LONGITUDINAL UDB 2009 – version-3 of August 2012 - DG EMPL calculations.
Note: DK, FI, IE, MT, NL and SE ommitted due to small sample sizes.

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People in good health are, in all Member States, at a lower risk of entering into poverty in the following year and have a greater chance of exiting from it once they are at-risk-of-poverty (see Chart 41). This is the case in all countries for which data is available, although the inequality between health groups differs slightly across Member States. In many Member States, especially Austria, Cyprus, Finland, Spain and the United Kingdom, inequalities relating to health status are widely spread. However, in France and Hungary, the inequality is low in that all groups have very similar rates of entering into and exiting from poverty, independent of health status.

All of these characteristics and life events are however not independent and might interact together. As explained by Paugam and Gallie (2004) for example, the process of exclusion begins with the loss of employment (or being trapped in precarious employment) leading to severe cuts in living standards which, in turn, limit job searches. Then the lack of resources, combined with the stigmatic effect of unemployment, leads to a fracturing of people's social ties and growing social isolation, which reinforces labour market marginalisation by cutting people off from regular information about employment opportunities.

5.2. Profiling of the population having experienced poverty

As poverty is multi-dimensional, it is generally difficult to isolate the impact of individual characteristics or life events. To integrate these interactions, the main profiles of the individuals at risk have been established through a multi-dimensional statistical technique (latent class analysis), see Annex 3. Based on this approach, profiles mixing multi-level information on individuals can be extracted to provide a broad view of the main characteristics of the individuals having experienced poverty at least once over the 2006-2009 period. These profiles are represented by bubbles in Chart 42 as the profiles might refer to varying shares of the vulnerable population (i.e. individuals having been poor at least one year over the period), the size of the bubbles also varies to represent their weight at national level.

Furthermore, these different profiles can be ranked according to their average risk of experiencing persistent poverty. The more a bubble representing a profile is located on the right hand side of the graph, the more likely individuals are to experience persistent poverty. Such a representation helps to further explore the results of the transitions in and out of poverty presented in the previous section (see Chart 37). If some profiles appear to be clearly separated from the rest of the population at risk, and experience a stronger risk of persistent poverty, then it can be considered that the profile illustrates the individual characteristics leading to social polarisation.

Data used for this analysis refers to the pre-crisis period, from 2006 to 2009. As the approach requires a tailored treatment, only a few Member States have been explored in this section, namely the Czech Republic, France, Spain, Italy, Latvia, the Netherlands and the United Kingdom. These Member States have been chosen based upon the size of the available sample, and in order to represent examples from each of the groups of entries in and exits out of poverty patterns (see section 4, Chart 37).

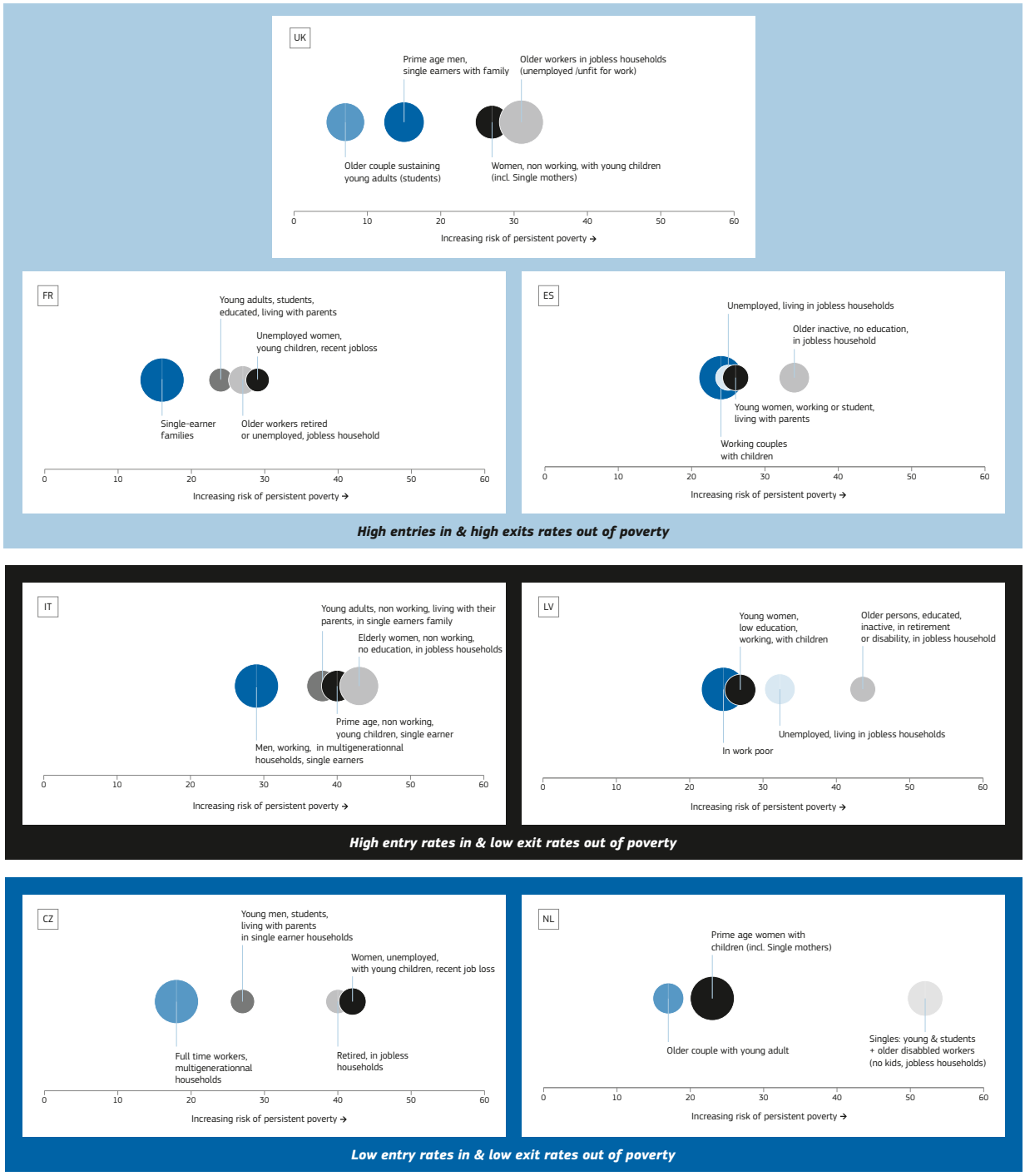
5.2.1. Profiles of individuals at risk of poverty and persistent poverty

France, Spain and the United Kingdom illustrate the case of countries with high entry and exit rates out of poverty. In these three countries, the share of persistent poverty among the population at risk of poverty is lower than the EU average. This result is consistent with the relatively low risk of persistent poverty among the main profiles identified compared to other Member States considered in the exercise.

Italy and Latvia are representatives of the groups with high entries and low exits into poverty (associated with a large share of persistent poverty among the population at risk in the case of Italy). In these Member States, the risk of persistent poverty among the main profiles is also higher than in the previous cases.

Finally, the Czech Republic and the Netherlands illustrate the last group, with low entries into poverty associated with low exits, and a relatively high share of persistently poor among those at-risk-of-poverty. In these two Member States, there are large gaps in the risk of persistent poverty among the profiles identified. Based on this evidence, these profiles could be associated with the part of the population suffering most severely from social polarisation.

Chart 42: Who are the persistently poor, working-age adults? Main profiles among the population that has experienced the risk of poverty at least one year between 2006 and 2009 and its likelihood of being persistently poor



Source: EU-SILC LONGITUDINAL UDB 2009 – version-2 of March 2012 - DG EMPL calculations.

Notes: These profiles are the results of Latent Class Analysis ran at national levels on the individuals aged 18-64 who have been at risk of poverty at least one year over the 2006-2009 period. Profiles described correspond to the characteristics of an average individual in the class. It does not mean that all individuals in that class belong these characteristics. Detailed values are provided in Annex 3.
The size of the bubbles is proportional to the share of individuals who are closest to this profiles among the working age population.

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5.2.2. Main profiles of individuals having faced poverty at least once

Regarding the characteristics related to the main profiles identified, one can conclude that:

- the main profiles among the population which was poor at least once over the 2006-2009 period generally differ across Member States;
- some profiles are however common to several countries, with slight variations. Four main profiles appear in a recurrent manner among the Member States investigated: older workers unemployed or out of work for disability reasons, adults (and especially women) with young children, couples with grown-up children, and in-work poor families (typically single earners);
- the risk of persistent poverty differs between profiles, especially in some Member States. This helps to get a better view of the individuals more vulnerable to social polarisation. In other Member States, the picture is however less clear cut and shows a shared vulnerability.

The first profile appearing in a recurrent manner among the Member States investigated corresponds to older workers out of the labour market, unemployed or unfit for work. This is especially the case in the Czech Republic, Spain, the United Kingdom, Latvia, the Netherlands and to a lesser extent, France. In Italy and Spain, this group corresponds largely to women.

The second profile concerns adults with young children, and not participating in the labour market. This profile tends to show up in different countries, under slightly varying forms. In the United Kingdom and the Netherlands, it relates to non-working mothers with young children, including single mothers. In Italy, this profile is more strongly characterised by women fulfilling domestic tasks and living in single-earner households. In France and in the Czech Republic, it relates rather to unemployed women, having lost their job during the 2006-2009 period. Lastly, in Spain and Latvia, it tends to refer to in work parents, especially women.

Another frequent group consists of couples living with grown-up children (older than 18) in France, the United Kingdom, Spain, the Czech Republic, the Netherlands, and Italy. Again, slight differences appear across Member States around this group. In the Czech Republic, and Italy, these young adults are more often living in single-earner families. In Spain, the profile tends to concern more precisely women, and includes young adults already at work. In Italy, the group differs as those young adults living with their parents are not working (unemployed or students). In the United Kingdom and the Netherlands, these groups also correspond to students living with parents. Moreover, in both countries, these groups tend to present greater chances of transient poverty, and lower chances of persistent poverty, than in other countries.

Lastly, another group consists of working poor adults. In the United Kingdom, Italy, Latvia and France, this profile is strongly associated with single-earner families. In this profile, the poverty is also more likely to be transient. In Spain, however, this profile tends to correspond rather to couples with two adult earners.

5.2.3. Tentative diagnosis for policy action: an illustration using the case of women with children

The previous analysis has shown that various profiles emerge across the population having been at risk of poverty at least one year over the 2006-2009 period. One group common to several of the Member States investigated relates to families with young children, and especially women. However, this group shapes differently across Member States, and therefore requires a specific policy response.

Women with young children face specific barriers to accessing the labour market and securing sufficient earnings. In this case, policy actions could rely on actions facilitating access to the labour market and ensuring sufficient earnings. Obstacles to the labour market participation of women include financial disincentives for second earners and a lack of access to services such as childcare. Insufficient participation in the labour market (involuntary part-time jobs, or fixed-term contracts) or low wages including a large gender pay gap often lead to insufficient earnings from the labour market. In some countries, current child benefits do not fully compensate for the cost of raising a child.

As an illustration, table 4 gathers some of the main indicators illustrating the directions for policy actions. It highlights possible reasons for persistent poverty of women with children in European Member States. Obstacles to labour market participation are illustrated by the impact of parenthood on women's employment rates and the share of inactivity or part-time work due to family reasons. Large inactivity traps for the second earner of a couple and use of childcare help to understand the reasons for non-participation: badly designed tax-benefit systems or lack of access to services. Obstacles to sufficient earnings from work are illustrated in the second part of the table. The share of women working under involuntary fixed-term or part-time contracts helps to measure issues related to insufficient quantity of work while the gender pay gap and low wage trap for second earners illustrate issues of unsufficient earnings from work.

Such a framework helps to illustrate the various drivers of poverty among families with young children. For instance, in the United Kingdom and the Netherlands, the share of women inactive or in part-time work due to family reasons stands at a high level, and occurs together with traps for second earners. In the Czech Republic, inactivity traps and lack of access to childcare accumulate to enhance the impact of parenthood on employment.

As concerns income from work, poverty is driven by insufficient earnings from the labour market in Spain, France and Italy due to a large share of involuntary part-time and fixed-term jobs. However, in the Czech Republic, Latvia, the Netherlands and the United Kingdom, the gender pay gap is at a high level and results in insufficient earnings from work.

Beside earnings from work and participation in the labour market, social protection might be a tool to reduce poverty. Table 4 shows that the impact of social benefits to reduce poverty of households with children is particularly low in Italy, Spain and Latvia. Previous

Table 4: Possible drivers of poverty for profiles corresponding to women with children

		CZ	ES	FR	IT	LV	NL	UK
	Employment gender gap (aged 20-64)	18.2	12.1	9.2	22.7	2.9	11.2	11.5
Obstacles to labour market participation	Employment impact of parenthood	36.0	4.1	8.1	4.1	7.9	3.5	18.9
	Inactivity/part time due to familial responsability	10.1	6.3	6.3	11.0	3.7	22.3	19.8
	Inactivity trap for the second member of a couple	41.4	23.0	52.6	30.9	37.2	53.1	60.4
	Use of formal childcare	39.0	50.0	47.0	70.0	59.0	15.0	22.0
Unsufficient earnings from the labour market	Involuntary temporary empl as % of female employees (15-64)	10.1	6.3	6.3	11.0	3.7	22.3	19.8
	Gender pay gap	25.5	16.7	16.0	5.5	17.6	18.5	19.5
	Low wage trap second earner	31.1	28.8	26.6	40.0	32.7	46.9	31.0
	Impact of social transfers in reducing child poverty	45.0	22.7	50.8	24.5	28.1	45.6	54.4
Outcome	Incidence within the population at least once in poverty		+		+	++	++	+
	Risk of persistent poverty	++	+	+	++	+	+	+

Source: Eurostat, EU-LFS, EU-SILC and OECD tax-benefit model.

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analysis (European Commission, 2012) has shown that in these Member States, the impact of social transfers on income tends to be regressive and benefit less the lower income quintiles than in other Member States.

Such an analysis framework helps to better understand the various needs to address poverty across Europe in the area of women with young children. Similar analysis could be envisaged to understand the nature of obstacles met by the other main profiles identified among the population, namely older workers out of the labour market, in-work poor people, and families with grown-up children living in the household.

6. Estimating the cost of poverty and social exclusion

This section draws attention to the wider consequences of poverty or exclusion, not just for individuals/households but for society as a whole, focusing on aspects such as the impact in terms of foregone earnings, human capital development and social unrest. While in the EU, there is currently no comprehensive study that quantifies the overall costs of poverty or social exclusion, several studies have evaluated the economic and societal costs of specific situations related to poverty, such as unemployment or NEET for the youth. Such approaches could be mobilised to provide estimates of the cost of poverty in Europe.

6.1. The challenge of measuring the cost of not fighting poverty and social exclusion

Efforts to illustrate, or quantify, the costs of poverty and exclusion mainly rely on the evidence that poverty is consistently linked to poor employment, health status, lower literacy, poor school performance for children, more crime, and greater stress for family members, and often for communities. It is therefore not only poor households but also society as a whole that bears the costs of poverty and social exclusion, notably through higher public health care costs, increased policing and crime costs, foregone economic activity and related lost productivity and lost tax revenues, and the intergenerational costs that flow from the

likelihood that a significant number of children from poor families will also remain poor.

Even if the long-term effects of poverty and social exclusion are difficult to observe, a body of academic research has analysed the consequences of poverty or exclusion for individuals and for society at large, focussing on aspects such as future earnings, and loss of human capital – in terms of knowledge, skills and health status, social unrest, etc. While there is currently no European comprehensive study in the EU in this respect, Canadian studies[17] suggest that the overall negative consequences of poverty can amount to around 5% of GDP even in relatively equal societies. In the UK, the Joseph Rowntree Foundation has estimated that child poverty costs at least 2% of the country's GDP (Hirsch 2008).

Indeed, comprehensive evaluations ideally need to reflect on both the estimation of the costs of fighting poverty and exclusion and the associated gains. The cost of social exclusion programmes and associated services, that can be used to lift people out of poverty, need to be accounted for, such as activation policies or child care policies. However, defining precisely the scope of social protection and inclusion measures to account for is delicate, notably in a context where the balance between prevention (e.g. well-designed social protection systems that prevent people from falling into poverty and provide the right incentives to work), activation measures (such as active labour market policies) and remediation (last resort schemes, food aid programmes, etc.) vary greatly from country to country. Moreover, the gains of reduced poverty levels would ideally need to include not only increases in primary incomes but also increased tax revenue, reduced health care expenditure, preserved human capital, reduced security expenditure, etc. For example, increased expenditure on security and protection by business and households is currently counted positively within national accounting systems, leading to higher GDP estimates.

6.2. Some indications based on estimates of the cost of unemployment or of NEET

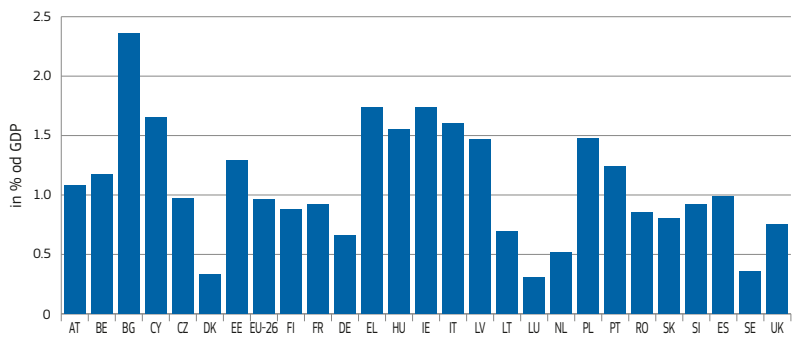
Some indications of the cost of poverty can be obtained from available evaluations in various fields, such as returns on education or the cost of unemployment and NEET.

Since poverty is generally associated with low educational levels, indications can be derived from the extensive literature on returns from improving educational levels. For instance, at European level, De la Fuente and Ciccone (2002) have estimated the return on investment in human capital at the microeconomic and macroeconomic levels and suggest that an additional year of schooling increases wages at the individual level by around 5-6% across European countries. Similarly, in the context of the long tradition of research on the returns on human capital, the OECD (2010) has carried out analysis on the cost of low educational performance and estimated that increasing average PISA scores (as a proxy of learning outcomes) can increase the OECD gross domestic product by USD 115 trillion over the lifetime of the generation born in 2010.

Furthermore, since poverty is generally associated with weak labour market attachment, indications of the cost of poverty can be derived from estimates of the cost of unemployment, which can cover both the short-term impact of becoming unemployed and some lasting effects. For instance, Dao and Loungani (2010) have highlighted the fact that, if past recessions are any guide, the human and social cost to those who have become unemployed during the crisis could be much more far-reaching than simply the immediate and temporary loss of income, since those who become unemployed during a recession face a loss in earnings that can persist 15-20 years. These reflect the potential losses in terms of lifetime earnings, human capital, the discouragement from seeking work, adverse health outcomes, and a general loss of social cohesion. Dao and Loungani also report on compelling evidence that parental job and income loss has a negative and persistent effect on children's well-being in both the short and longer term, underlining the importance of early investment in the education and health of children. Furthermore, various adverse health outcomes associated with unemployment can be highlighted. For instance, Sullivan and von Wachter (2009) found that increased mortality rates due to unemployment can persist up to 20 years after the job loss and lead to an average loss of life expectancy of 1 to 1.5 years. This finding reflects the importance of financial resources as a determinant of individual health, not least by affecting the ability to invest in, or have access to, good health care and develop a healthy lifestyle, while a shortage of resources leads to poor lifestyle choices and can also be the reason for stress and depression.

Along the same lines, there is also evidence that the adverse effects on lifetime earnings are most pronounced for unemployment spells experienced during youth (see Oreopoulos et al., 2008 and Kahn, 2010). Additional indications can also be derived for evaluation of the cost of young people not being in employment, education or training, which has implications, not only for their present situation, but also for their

Chart 43: Cost of the NEET group in 2008



Source: Eurofound.

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(17) A study from Ontario (Ontario Association of Food Banks 2008) puts the cost of poverty at 5.5 to 6.6% of GDP and a study from British Columbia estimates that the cost to society is between 4.1 and 4.7% of GDP, 1/4 of which is a direct cost to government alone (Ivanova 2011).

future inclusion in society. These so-called NEETs have mostly dropped out of school early without any qualifications thereby making them much more likely to be marginalised and dependent on social welfare, with substantial societal costs. Eurofound (2012) estimates that the lack of participation in the labour market, of NEETS analysed in the EU, costs 1 % of aggregate GDP. These costs are due to foregone earnings and additional social transfers. At country level, Bulgaria, Cyprus, Greece, Ireland, Hungary and Italy face the highest cost at 1.5 % or more of GDP, while the cost of NEETs in Luxembourg, Denmark and Sweden is comparatively limited at below 0.5 % of GDP (Chart 43).

6.3. Providing partial estimates of the cost of poverty and exclusion

While a comprehensive approach to the cost of poverty and social exclusion would require taking account of a very broad range of effects, a first step is to evaluate the cost of unemployment or NEET by focusing on the *opportunity* cost of poverty (the direct economic cost linked to the situation of poverty of some people, and related additional public resources linked to lower benefits and higher taxes) rather than on the overall general costs (for instance health and crime outcomes, intergenerational transmission of poverty, or lifecycle impacts on children experiencing poverty, etc).

In this context, one can estimate the economic gain that some poor people would benefit from when having better access to the labour market and thus higher labour market incomes. The assessment of the gains can then reflect the general economic impact (higher wages translating into higher GDP), distinguishing between both the private impact (higher net incomes) and the public one (fewer benefits and higher tax revenue). Estimates of the gains of lifting a number of poor people out of poverty can be derived from microdata on incomes and labour market access (EU surveys LFS and SILC), possibly complemented by micro simulation tools and information on the efficiency of active labour market policies to support reintegration in the labour market. It can be noted that such an approach remains however partial. From an economic point of view, it notably disregards the multiplier impact of additional private consumption or additional public investment (demand side); as well as the impact of overall lower taxes (supply side). It also doesn't take account of the expected impact on the take-up of some in-kind benefits – such as child care or health – and on the payments of employers' contributions or indirect taxes such as VAT.

As a first step, evaluations of the gains associated with the return to the labour market of poor people of active age can be derived from EU wide surveys like SILC. This can be obtained either by directly comparing average labour market outcomes (and related benefits and tax levels) of non-poor people having the same characteristics (such as education, age, sex, household type) or by relying on matching methods such as in the recent Eurofound study on the cost of NEETs (Eurofound 2012), thus enabling estimates that better reflect the heterogeneity of situations, as well as actual assessments of the overall impact on poverty rates (linked to possible changes in the median incomes). Relying on micro-simulation tools could also be envisaged, by allowing for changes in the attachment to the labour market, through simulations of employment shocks (for instance among the working poor or unemployed or inactive poor). Micro-simulation models such as Euromod would allow for estimating both the new situation in terms of benefits and taxes and also the general economic gains more accurately.

As a second step, some attempts could be made to compare such estimates of the economic gains of having some categories of poor people back in the labour market to estimates of the corresponding costs, based on some rough estimates of the cost and efficiency of several active labour market policies (possibly disentangling different types of measures).

It can be noted that this type of approach may also be used for other types of social protection and social inclusion policies, for instance, providing estimates on the return of child care facilities, or on changes in marginal tax rates for different types of situation (for instance for pension take-up or second earners).

7. An increasing emphasis on social investment

The focus on social protection and social inclusion policies as an investment in individuals and more generally society has been gaining vigour in Europe since the early 90s notably with the work from Esping Andersen (1992) and more particularly in recent years. In this context, though the social investment approach is not unified in a single proper body, the last two decades have recently been analysed as a period of emergence of a 'Social Investment State' in Europe (Van Kersbergen and Hemerijck, 2012), while the roots of the approach of social investment can be found in the 1930s and the works on social protection as a productive factor developed in Sweden by Alva and Gunnar Myrdal (Morel, Palier and Palme, 2012).

In very broad terms, the social investment approach stresses the case of considering employment, social protection and social inclusion policies – and possibly other policy areas, such as education – as an investment for the future, leading to greater employment and social participation, as well as social cohesion and stability (Van Kersbergen and Hemerijck, 2012), while at the same time acknowledging their key role as a productive factor. In this respect, the social investment approach puts the stress on the long-term benefits for society of current policies and puts the emphasis on a life cycle approach for the individuals. For instance, it has recently been argued that deficits in social investment in recent decades in some Member States can contribute to explaining the current disequilibria observed in EMU (Hemerijck and Vandenbroucke, 2012).

7.1. Social protection and inclusion as a productive factor

The social investment approach draws on social protection as a productive factor, underlining that well-designed social inclusion and social protection policies are efficiency enhancing. These gains are notably related to the efficiency gains of insurance mechanisms (such as health, unemployment or old age insurances) and to the related reduction in uncertainty, not only at the individual level, but also at the macroeconomic level thanks to automatic stabilisation.

For instance, social protection allows for taking higher economic risks, to the extent that some risks (such as sickness, unemployment, old age) are actually covered and do not necessitate specific savings. Furthermore, welfare state provisions, social expenditure, institutions of collective bargaining and worker participation, and job protection regulation, may contribute to a positive investment climate by fostering stability and creating a healthy, well-educated and more productive and mobile work force.

7.2. Social protection and inclusion as an investment

The development of the social investment approach stems notably from socio-economic trends and the related 'new' social risks associated with recent decades. For instance, at the core of the Esping Andersen et al. (2002) approach lies the argument that welfare states need to adapt to the shift away from the prevailing male-breadwinner model which provides increasingly sub-optimal chances in the labour market for large shares of the population. From this perspective, the former welfare models needed to be adapted to provide more adequate answers to skill depletion, the reconciliation of work and family life, caring for frail people or the inadequacy of social protection coverage. A number of other trends can also be considered to be at the root of a more investment oriented approach of social policies, such as developments in the labour markets with higher levels of unemployment and the increase in primary income inequalities, as generally observed in recent decades. The pattern change from unemployment that was mainly cyclical in character to more structural, due notably to shifts in demand (such as intensification of international trade and skill biased technological change) and supply (such as the feminisation of the labour force and family transformations), also requires that standard income guarantees are complemented by capacitating public services (Vandenbroucke et al., 2011) and active labour market strategies. In other words, the social investment approach stems partly from the changing socioeconomic climate in which the emerging knowledge economy has created new social and economic risks (such as lack of skills, long-term unemployment or more generally insufficient access to the labour market) that require more active social welfare policies, which should be seen as complements to existing social policies providing security in the first place. Furthermore, considerations about the financial sustainability of the welfare systems were also present – notably in the context of population ageing – and their capacity not to be a burden on the wellbeing of future generations was questioned (e.g. Esping Andersen, 1996).

In this context, a key underlying principle of social investment is to prevent some social risks from materialising and, through complementary protection strategies, to insure against and compensate for those risks if and when they materialise. A main aspiration of the social investment model is to consider together social and economic policies rather than treating them separately, notably due to economic reasons linked to the positive externalities of social aspects of life – such as education, health or housing. More generally, the social investment model seeks to enhance people's capacity to participate, aiming at empowering citizens as a means of increasing social cohesion and economic growth and standards of living.

As Vandenbroucke et al. (2011) underlined, the focus is on public policies that '*prepare*' individuals, families and societies to adapt to various transformations, such as changing career patterns and working conditions, and the emergence of new social risks, such as population ageing, rather than simply generating responses aimed at '*repairing*' any damage caused by market failure, social misfortune, poor health or prevailing policy inadequacies. In this concept, welfare states should provide complementary enabling social services alongside more traditional social welfare systems.

7.3. Key areas for social investment

Key areas of public policy are directly linked to the social investment approach such as in particular human capital improvement and preservation, the family's relation to the economy and the link to employment (Vandenbroucke et al. 2011).

The social investment approach focuses on building and preserving people's capabilities. In this respect, since in today's economy, qualifications play a greater role than ever, a key element is therefore up-skilling the low-skilled and the unemployed and preserving skills during unemployment spells. In this context, both education and lifelong learning are clearly seen as key factors contributing to the human capital *stock*, but also early childhood education and care. Furthermore, the stress is not only on human capital stocks but also on *flows*: through policies supporting female and lone parent employment, active labour market policies and other activation policies, facilitating access to the labour market for vulnerable groups and the promotion of flexible social protection over the life course (Hemerijck and Vandenbroucke, 2012).

Facilitating the reconciliation between work and family life and reducing child poverty are also key elements, which can be achieved through the promotion of early investment in children, in particular through child care, but also introducing work pay policies and improved cash assistance and cash-benefits for low-income households.

Another fundamental aspect is labour participation as a means of achieving social cohesion and economic competitiveness. As a complement to income transfers and unemployment benefits, the investment approach recommends activation policies and 'making work pay' strategies based on increasing individuals' access to the labour market and thus society. A core element is thus the implementation of active labour market policies (ALMPs), in which, for example, non-employed individuals are provided with education and training, as well as active ageing policies, where older workers are encouraged and provided opportunities to stay longer on the labour market. Extensive literature is available on the effectiveness of ALMPs (see for instance European Commission 2006) and it is commonly recognised that such policies facilitate integration into the labour market, minimise long-term unemployment and decrease the loss of productive human capital. Hence, ALMPs combine social and economic policies as a means to achieve improvements, while it should be recognised that the effectiveness of measures vary and there are complementarities between active and passive labour market policies.

The focus on investment indicates an explicit expectation of a return on social investment, though it should be noted

that actual assessments of the actual returns are difficult, since some effects are meant to be general and actually linked to externalities of policies involved. For instance, while in general, social protection and inclusion systems played an automatic stabilisation role, though to different extents depending on the various risks covered (see Chapter 3), between 2008 and 2010, many European countries also implemented short-term work or temporary lay-off schemes, combined with existing programmes of unemployment compensation alongside further training initiatives, which were consistent with both demand stabilisation and new social investment priorities. The empirical evidence suggests that short-term schemes have been effective in reducing the vulnerability of employment during the global recession, though short-term arrangements need to be supplemented by measures that support employability and ease transitions to new jobs (European Commission 2010). In another area, Nelson (2011) indicates that social investment policies (such as early child education and care, equal opportunity education, active labour market policies) make a difference not only in raising employment levels, but also in allowing the development of highly skilled quality jobs.

7.4. Social investment in practice

The social investment perspective actually covers under the same umbrella different approaches, as underlined by Morel, Palier and Palme (2012) or Van Kersbergen and Hemerijck (2012) and social investment policies have been put into practice to different extents across Member States.

Based on analysis of social expenditure trends by categories, Nikolai (2009 and 2012) identifies two main ways among the various routes to social investment: a Nordic one, which combines traditional social protection with social investment, and an Anglo-Saxon one which tends to somehow substitute traditional compensatory spending with new investments. This echoes Giddens (1998) who referred to social investment as a 'third way' (between neo-liberalism and the post-war welfare state), with public expenditure directed towards investment in human capital as a means of achieving social cohesion and economic growth. To meet these objectives, active labour market policies, education, support to the social economy, family policies and lifelong learning schemes were meant to be prioritised. In essence, the emphasis was put on 'active' social policies, while a Nordic approach put forward for instance by Esping Andersen et al. (2002) and Vandenbroucke and Vleminckx (2011) puts more of an emphasis on the complementarities between an investment strategy and a protection strategy, social protection and social investment being essentially seen as mutually reinforcing. From this perspective, investment in ALMPs, lifelong learning, activation policies and education allowing people to reach their full potential, also need unemployment benefit and social protection policies that can ensure a certain level of protection.

In practice, the countries that display the strongest social investment profile are the Nordic countries. In particular, Nordic countries such as Sweden or Denmark practice a system of universal and broadly egalitarian education and healthcare and childcare, have extensive ALMPs and training policies, are in general gender egalitarian and provide generous income maintenance benefits. In essence, these countries pursue a social policy that fuses educational and caregiving motivations, but also includes a strong focus on gender equality as a means to invest in human capital to achieve greater, and sustainable, economic growth.

A number of other countries across Europe have incorporated elements of social investment into their social policy framework since the 90s (as underlined by Van Kersbergen and Hemerijck, 2012), notably in the United Kingdom (notably through activation policies and training policies, as well as in work benefits), the Netherlands and Germany (notably through training programmes and childcare and parental leave arrangements), and France (notably through a stable and vigorous family policy and putting the emphasis on activation and making work pay). Nevertheless, the social investment approach seems to have reached mixed outcomes in some of these countries, which probably reflects a need for a comprehensive approach (partial implementation leading at best to partial success), as well as the particularly difficult overall economic context in which some reforms were launched or the time lags needed to actually see their impact. For example, despite social reforms to combat child poverty in the UK, rates remain high relative to other EU countries, and educational opportunities remain unequal. In the Netherlands, female activation reforms have increased female work participation, but mostly through part-time work. In Germany, reforms have led to an insignificant increase in fertility rates, while in France, the poverty rate has not shown a significant downward trend.

8. Conclusions

This chapter has reviewed recent developments in poverty and social exclusion in the EU as a whole and in individual Member States. Through an approach based on examining the dynamics of poverty, it aims at showing how addressing and preventing poverty and long-term exclusion needs to take into account its dynamic nature.

The results show that following slow but progressive improvements over the previous decade, there has been little change in the extent of poverty and social exclusion at EU level since 2008, with around 1-in-4 at-risk-of-poverty-or-exclusion in 2011. However, this apparent stability in the risk at EU level hides strong divergence across Member States, with strong rises compared to 2008 observed in some (including Bulgaria, Ireland, Latvia, Lithuania and Spain), while others have seen recent declines (especially Poland and Romania). This highlights the strong polarisation in developments across Member States in terms of the impact of the crisis and its effect on poverty and exclusion.

There are signs of rising poverty in many Member States, while the worsening situation following the crisis is more clearly evident in the trends of severe material deprivation and in jobless or very low work intensity households, which reflect more immediately the impact of the crisis in terms of growing exclusion from the labour market and related poverty developments.

Figures for 2011 indicate that, among different population subgroups, it is the unemployed, the inactive, single parent families and non-EU migrants who face the greatest risks of poverty or exclusion. Among age groups, children and young adults are more at risk than others, while with regard to skill levels it is the low-skilled who face a much higher risk.

Moreover, the crisis has not impacted uniformly across the whole population and has often led to an even worse situation for these groups already at heightened risk before the crisis, notably young people (leading to a sharp rise in young adults not in employment, education or training (NEETs)).

The crisis has clearly had a strong impact on the financial situation of households in many Member States. There has been a significant jump in the number of people in the EU reporting economic strains in their household, with around 1-in-10 reporting their households have great difficulty in making ends meet, and with strong increases in other major factors indicating economic strain in households, such as being in arrears on mortgage or rent payments or being in arrears on utility bills.

The generally worsening financial situation of households has had a clear impact on their ability to cope with unexpected expenses, which raises the potential for unforeseen life events or further economic shocks to significantly impact on their welfare and social situation. Moreover, indications from recent consumer surveys are that the social situation has further deteriorated since 2011 in many Member States, with the poorest quartile being affected more than the average in the majority of cases and within the EU as a whole.

In line with the above, developments in the poverty gap indicate that poverty has generally become more severe since the crisis. In addition, multiple disadvantage has been increasing, with the share of the population both at-risk-of-poverty and living in a household with very low work intensity increasing 0.4 pps, reflecting the more immediate effect of the contraction in the labour market on household work involvement and related poverty developments. Above all, the low-skilled, those living in single parent households, men living alone, third country immigrants, and to some extent children, face considerably greater risks of multiple disadvantage, and apart from single parent households their risks have generally worsened most since the crisis began.

In-depth analysis of the dynamics of poverty among working age adults in Europe provides further evidence to better prepare future action. The results show that the risks of entering into and exiting out of poverty can vary greatly across Member States. Three main groups of countries can be distinguished.

In the first group, rates of entry into and exit from poverty are high. This shows that the churning in and out of the risk of poverty is high. However, in some of these countries, a non-negligible share of those at-risk-of-poverty form a 'core group' of the people at-risk-of-poverty and do not take part in the churning.

The second group consists of Member States with a high risk of entering into poverty, and low chances of getting out of it. This is related to the risk of a massive poverty trap, as those entering into the risk of poverty will have difficulties getting out of it. As this evidence relates to pre-crisis data, the situation is worsening as the future perspectives are gloomy for this subgroup.

The last group of countries consists of Member States with low rates of entry into and exit from poverty. In these Member States, the share of people at risk of persistent poverty is however high. This is a sign of a preoccupying social polarisation in these countries, with a group of people at-risk-of-poverty for which there are few chances to get out of it.

Individual profiles have been estimated and crossed with their risks of persistent poverty. The results show that some broad profiles emerge across the selected Member States, such as adults with young children, couples with grown-up children still in the household, in-work poor families, and older working age adults out of the labour market. However, among these groups, slight national variations appear and require tailored policy action.

One strategy proposed to help avoid long-term poverty and exclusion is a social investment approach, which emphasises the economic and social returns from investing in people's capabilities. The social investment approach seeks to reunite social and economic policies rather than treating them separately, to achieve equality of opportunity and enhance people's capacity to participate in the labour market and improve social cohesion and economic competitiveness. The focus is on public policies that '*prepare*' individuals, families and societies to adapt to various transformations, such as changing career patterns and working conditions or the emergence of new social risks, such as population ageing or more structural unemployment, rather than only generating responses aimed at '*repairing*' any damage caused by market failure, social misfortune, poor health or prevailing policy inadequacies. In this concept, welfare states should provide complementary enabling social services alongside more traditional social welfare systems. Key areas of public policy are directly linked to the social investment approach such as in particular human capital improvement and preservation, the family's relation to the economy and the link to employment.

Annex 1

Table A1: Sample size by Member State for the 18-64 population

Country	Sample size individuals aged 18-64 present 4 consecutive waves (2006-2009)	Sample size individuals aged 18-64 present 2 consecutive waves (2008-2009)
AT	1596	5487
BE	1973	6194
BG	1435	5654
CY	1474	4352
CZ	4623	10936
DK	1336	5156
EE	2318	6496
ES	4867	16459
FI	7267	7267
FR	7925	12777
EL	2039	7292
HU	2997	10080
IE		3389
IT	6714	22506
LT	1856	5700
LU	4077	5149
LV	1484	5801
MT	1300	4315
NL	1955	10032
PL	6239	18378
PT	1604	5310
RO		8932
SE	1778	6658
SI	3550	13366
SK	2339	8100
UK	1964	7274
Total	**74710**	**223060**
Number of countries	24	26

Source: EU-SILC LONGITUDINAL UDB 2009 – version 3 of August 2012 – DG EMPL calculations.

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Annex 2 – Yearly rates of entry into and exit from the risk of poverty and deprivation

Table A2 : Yearly rates of entry into and exit from the risk of poverty and deprivation; 2007-2009, 18-64 population

	Risk of Poverty															
	Entry rate				Exit rate				Sample size (ins)				Sample size (out)			
	2006-2007	2007-2008	2008-2009	Average	2006-2007	2007-2008	2008-2009	Average	2006-2007	2007-2008	2008-2009	Average	2006-2007	2007-2008	2008-2009	Average
EU-26	5.8%	6.7%	5.7%	**6.1%**	46.0%	39.8%	41.2%	**41.7%**	4 256	7 923	10 365	22 544	5 154	8 347	11 629	25 130
AT	3.5%	5.1%	5.5%	**5.0%**	51.5%	51.8%	52.6%	**52.1%**	74	166	244	484	127	236	301	664
BE	5.2%	4.6%	4.7%	**4.8%**	41.3%	41.2%	39.4%	**40.4%**	112	189	247	548	128	240	277	645
BG	7.4%	8.3%	7.1%	**7.5%**	34.5%	50.1%	27.5%	**36.7%**	111	228	366	705	105	299	276	680
CY	2.9%	3.6%	2.5%	**2.9%**	26.9%	24.1%	40.1%	**33.0%**	46	100	92	238	39	74	195	308
CZ	3.3%	2.9%	2.7%	**2.8%**	40.7%	41.2%	41.7%	**41.4%**	151	202	252	605	164	284	345	793
DK	2.7%	3.0%	3.8%	**3.4%**	30.6%	51.6%	35.8%	**39.0%**	30	63	95	188	42	73	71	186
EE	6.0%	6.0%	6.5%	**6.2%**	38.4%	34.2%	33.3%	**34.5%**	156	269	357	782	183	290	380	853
ES	10.3%	9.0%	8.8%	**9.1%**	45.0%	42.7%	46.0%	**44.7%**	452	781	1 270	2 503	451	792	1 229	2 472
FI	3.9%	4.3%	3.5%	**3.8%**	44.0%	35.2%	36.8%	**37.6%**	105	169	226	500	131	195	243	569
FR	5.2%	7.4%	4.6%	**5.7%**	51.8%	43.1%	44.9%	**46.2%**	467	735	477	1 679	587	560	733	1 880
GR	7.9%	8.6%	7.7%	**8.0%**	35.0%	32.3%	31.5%	**32.5%**	156	291	436	883	215	308	443	966
HU	6.5%	4.6%	5.3%	**5.3%**	53.2%	37.6%	38.1%	**41.3%**	202	309	472	983	292	324	447	1 063
IE	5.5%	5.9%	5.7%	**5.7%**	38.0%	41.9%	41.1%	**40.7%**	26	117	171	314	48	151	201	400
IT	7.9%	5.9%	6.3%	**6.4%**	34.0%	33.4%	35.9%	**34.7%**	451	714	1 068	2 233	461	843	1 329	2 633
LT	5.6%	7.3%	7.5%	**7.1%**	38.0%	33.5%	31.6%	**33.4%**	106	246	324	676	111	205	305	621
LU	3.8%	3.9%	2.7%	**3.5%**	32.1%	26.7%	29.0%	**29.3%**	252	240	222	714	294	290	347	931
LV	7.0%	12.0%	7.9%	**9.2%**	41.4%	28.4%	31.6%	**32.6%**	103	351	353	807	138	183	387	708
MT	7.6%	8.1%	8.5%	**8.2%**	47.6%	39.4%	26.2%	**33.4%**	117	237	321	675	109	181	176	466
NL	2.4%	2.7%	2.1%	**2.4%**	49.2%	40.7%	32.9%	**37.7%**	49	126	162	337	59	126	125	310
PL	6.4%	6.8%	6.6%	**6.7%**	36.6%	37.0%	38.1%	**37.4%**	378	788	1 119	2 285	519	950	1 212	2 681
PT	3.0%	7.4%	5.6%	**5.8%**	37.8%	31.5%	35.4%	**34.7%**	49	215	243	507	98	166	328	592
RO		6.2%	5.9%	**6.0%**		27.8%	26.1%	**26.9%**		285	420	705		406	480	886
SE	2.3%	2.7%	2.7%	**2.6%**	54.2%	36.0%	32.0%	**36.7%**	46	126	172	344	61	92	126	279
SI	3.4%	3.6%	2.4%	**3.0%**	34.5%	28.6%	36.3%	**33.5%**	161	268	274	703	164	247	472	883
SK	4.7%	3.8%	4.9%	**4.5%**	49.4%	40.0%	48.8%	**46.0%**	112	183	334	629	109	241	399	749
UK	6.9%	7.4%	7.8%	**7.5%**	48.5%	48.4%	53.4%	**50.8%**	168	343	434	945	241	380	569	1 190

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	Deprivation															
	Entry rate				Exit rate				Sample size (ins)				Sample size (out)			
	2006-2007	2007-2008	2008-2009	Average	2006-2007	2007-2008	2008-2009	Average	2006-2007	2007-2008	2008-2009	Average	2006-2007	2007-2008	2008-2009	Average
EU-26	5.3%	5.9%	6.5%	**6.1%**	38.2%	36.6%	34.3%	**35.8%**	5 154	8 347	11 629	25 130	5 895	11 170	12 982	30 047
AT	4.5%	8.8%	4.4%	**5.9%**	48.9%	47.1%	45.1%	**46.3%**	127	236	301	664	120	157	280	557
BE	3.7%	3.3%	3.7%	**3.5%**	35.8%	38.8%	31.7%	**34.9%**	128	240	277	645	117	184	220	521
BG	38.1%	24.6%	23.0%	**25.1%**	23.2%	46.8%	15.1%	**29.1%**	105	299	276	680	259	841	380	1 480
CY	13.0%	8.2%	10.5%	**10.2%**	30.3%	47.8%	42.6%	**42.6%**	39	74	195	308	138	468	386	992
CZ	3.1%	5.1%	5.2%	**4.8%**	30.5%	32.1%	31.1%	**31.3%**	164	284	345	793	298	396	481	1 175
DK	2.5%	2.0%	8.0%	**5.1%**	65.4%	64.9%	21.5%	**46.6%**	42	73	71	186	42	56	28	126
EE	6.7%	5.4%	10.3%	**8.1%**	48.4%	49.9%	37.5%	**43.9%**	183	290	380	853	168	325	250	743
ES	6.0%	4.8%	7.4%	**6.3%**	54.7%	56.0%	45.2%	**50.8%**	451	792	1 229	2 472	302	632	632	1 566
FI	2.9%	3.3%	3.4%	**3.3%**	39.7%	42.7%	39.7%	**40.6%**	131	195	243	569	79	121	199	399
FR	5.0%	5.0%	5.5%	**5.2%**	41.6%	36.6%	37.8%	**38.4%**	587	560	733	1 880	521	456	588	1 565
GR	8.6%	8.1%	9.6%	**8.9%**	39.8%	29.4%	30.0%	**31.9%**	215	308	443	966	258	274	443	975
HU	18.0%	15.4%	20.4%	**18.3%**	31.7%	30.4%	22.9%	**26.9%**	292	324	447	1 063	436	810	850	2 096
IE	3.6%	6.4%	6.9%	**6.2%**	47.6%	17.7%	29.4%	**28.7%**	48	151	201	400	33	60	148	241
IT	6.3%	7.4%	6.2%	**6.6%**	43.8%	44.9%	42.9%	**43.7%**	461	843	1 329	2 633	447	956	1 328	2 731
LT	9.2%	11.6%	10.1%	**10.5%**	43.2%	35.5%	38.1%	**38.5%**	111	205	305	621	365	419	529	1 313
LU	1.6%	1.9%	2.2%	**1.9%**	61.9%	46.2%	65.5%	**58.8%**	294	290	347	931	138	136	179	453
LV	11.9%	11.5%	17.7%	**14.9%**	24.4%	38.9%	29.3%	**31.5%**	138	183	387	708	204	491	609	1 304
MT	6.4%	4.7%	5.0%	**5.1%**	52.2%	27.5%	27.4%	**31.6%**	109	181	176	466	129	115	163	407
NL	1.9%	1.9%	2.0%	**1.9%**	50.3%	48.3%	37.1%	**42.8%**	59	126	125	310	46	100	119	265
PL	9.3%	7.8%	8.8%	**8.5%**	26.6%	27.6%	29.5%	**28.2%**	519	950	1 212	2 681	778	1 365	1 755	3 898
PT	9.0%	9.0%	7.7%	**8.3%**	32.3%	41.1%	39.4%	**39.0%**	98	166	328	592	90	306	458	854
RO		19.2%	17.4%	**18.0%**		28.3%	20.1%	**23.7%**		406	480	886		970	847	1 817
SE	2.4%	2.1%	2.2%	**2.2%**	59.6%	57.5%	58.7%	**58.4%**	61	92	126	279	64	126	141	331
SI	8.2%	11.1%	8.7%	**9.5%**	43.1%	39.2%	38.0%	**39.1%**	164	247	472	883	203	428	752	1 383
SK	10.7%	9.8%	9.0%	**9.5%**	43.7%	36.9%	37.3%	**38.5%**	109	241	399	749	375	578	771	1 724
UK	3.1%	4.3%	3.9%	**3.9%**	40.1%	38.8%	52.0%	**45.7%**	241	380	569	1 190	134	200	356	690

Source: EU-SILC LONGITUDINAL UDB 2009 – version 3 of August 2012.

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Annex 3 – Technical details of Latent Class Analysis

This annex summarizes the results of the Latent Class Analysis (LCA) of individuals in eight European case studies, namely Bulgaria, the Czech Republic, Spain, France, Italy, Latvia, the Netherlands and the United Kingdom. Traditional methods of identifying groups include cross-tabulations of socio-demographic characteristics of individuals at risk one by one. However, more advanced statistical methods can be used, including LCA. The main idea behind the LCA methodology is that, using individuals' observable characteristics, one can construct groups of individuals that are the most likely to be homogeneous among themselves, while each group is as distant as can be from one another. LCA methodology was thus used to identify, within each of the above-mentioned countries, groups of AROPE individuals (their defining characteristics as well as their different sizes).

Latent Class Analysis

Latent Class Analysis (LCA) can be used to reduce a set of several categorically scored variables into a single latent variable with a set of underlying types or 'classes'. Individuals are classified into the class for which they have the highest posterior probability of belonging, given their observed characteristics.

LCA enables characterization of categorical unobserved (*latent*) variables from an analysis of the structure of the relationships among several categorical *observed* variables. LCA is thus 'the classification of similar objects into groups, where the number of groups, as well as their forms are unknown' (Kaufman and Rousseeuw, 1990).

The LCA model can be seen as a probabilistic or model-based variant of traditional non-hierarchical cluster analysis procedures such as the K-means method. Contrary to traditional ad hoc clustering approaches, the LC approach to clustering is model-based. The fundamental assumption underlying LCA is that of *local independence*, which states that observations in the same latent class share a common *joint probability distribution* among the observed variables. Since persons in the same latent class (cluster) cannot be distinguished from each other based on their observed responses, they are similar to each other (homogeneous) with respect to these observed variables.

For this, individuals who were at-risk-of-poverty at least one year over the period 2006-2009 have been clustered in classes in each Member State in each of the 8 case studies and constitute the population of interest. The population was restricted to individuals aged 18 to 64. Age categories, gender, education, economic status, chronic illness, household composition, number of working adults in household, urban/rural breakdown, nature of contract, and whether the individual has ever worked represent the *observed covariates* and are used to predict AROPE status. In addition to these active covariates, exogenous variables were included in the model, such as presence of parents in the household, sector of occupation, unmet need for health, country of birth, poverty status, severely materially deprived status, low work intensity household, and social protection transfers.

Table A3: LCA analysis with longitudinal data (EU-SILC 2006/9)

Country	Number of observations/individuals	Number of groups/clusters
Bulgaria	464	4
Czech Republic	646	4
Spain	1.648	4
France	1.615	4
Italy	1.721	4
Latvia	557	4
Netherlands	156	3
United Kingdom	537	4

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A4: Czech Republic – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Cluster Size	0.509	0.192	0.153	0.146
INDICATORS					
AGE	18-24 y.o.	0.148	0.259	0.997	0.013
	25-44 y.o.	0.573	0.446	0.002	0.129
	45-64 y.o.	0.279	0.295	0.002	0.859
GENDER	Female	0.478	0.261	0.602	0.423
	Male	0.522	0.739	0.398	0.577
EDUCATION	Primary	0.147	0.456	0.404	0.338
	Mid level (Upper Secondary)	0.807	0.540	0.569	0.639
	Tertiary	0.046	0.004	0.028	0.023
ECONOMIC STATUS	Working full-time	0.880	0.004	0.363	0.002
	Working part-time	0.064	0.000	0.000	0.000
	Unemployed	0.001	0.655	0.092	0.136
	Pupil, student, trainee	0.000	0.000	0.544	0.008
	Retirement	0.000	0.000	0.000	0.504
	Disabled/unfit for work	0.042	0.018	0.000	0.323
	Domestic tasks	0.014	0.323	0.000	0.003
	Other inactive	0.000	0.000	0.000	0.025
HOUSEHOLD COMPOSITION	One adult	0.111	0.033	0.061	0.556
	Two adults	0.077	0.025	0.050	0.286
	Single parent	0.057	0.159	0.000	0.018
	Two adults, some children	0.339	0.329	0.001	0.044
	Three and more adults, some or no children	0.415	0.455	0.888	0.096
WORKERS	1 working adult	0.398	0.473	0.314	0.073
	2+ working adults	0.602	0.070	0.534	0.001
	No working adult	0.000	0.457	0.152	0.926
CHILD	No	0.919	0.828	0.964	0.987
	Yes	0.078	0.172	0.026	0.013
JOB LOSS	No	0.967	0.585	0.980	0.954
	Yes	0.033	0.416	0.020	0.046
COVARIATES					
POVERTY	Persistent	0.178	0.425	0.274	0.409
	Recurrent	0.061	0.042	0.040	0.072
	Transient	0.760	0.533	0.685	0.519
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.562	0.298	0.497	0.271
	2 years	0.252	0.261	0.229	0.263
	3 years	0.136	0.151	0.176	0.153
	4 years	0.049	0.290	0.099	0.313
	Mean	1.672	2.432	1.876	2.508

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A5: Spain – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Cluster Size	0.471	0.222	0.160	0.147
INDICATORS					
AGE	18-24 y.o.	0.004	0.022	0.981	0.263
	25-44 y.o.	0.529	0.274	0.014	0.457
	45-64 y.o.	0.467	0.704	0.005	0.280
GENDER	Female	0.834	0.484	0.703	0.822
	Male	0.167	0.516	0.298	0.178
EDUCATION	Primary	0.567	0.731	0.421	0.630
	Mid level (Upper Secondary)	0.204	0.189	0.337	0.196
	Tertiary	0.229	0.080	0.243	0.174
ECONOMIC STATUS	Working full-time	0.933	0.001	0.446	0.001
	Working part-time	0.066	0.003	0.078	0.000
	Unemployed	0.000	0.145	0.120	0.967
	Pupil, student, trainee	0.000	0.000	0.350	0.000
	Retirement	0.001	0.166	0.000	0.000
	Disabled/unfit for work	0.000	0.232	0.003	0.000
	Domestic tasks	0.000	0.412	0.000	0.013
	Other inactive	0.000	0.041	0.003	0.018
HOUSEHOLD COMPOSITION	One adult	0.041	0.141	0.011	0.048
	Two adults	0.155	0.185	0.062	0.202
	Single parent	0.008	0.012	0.019	0.012
	Two adults, some children	0.488	0.241	0.267	0.392
	Three and more adults, some or no children	0.308	0.421	0.641	0.347
WORKERS	1 working adult	0.462	0.369	0.347	0.326
	2+ working adults	0.538	0.098	0.551	0.118
	No working adult	0.000	0.533	0.102	0.557
CHILD	No	0.905	0.940	0.986	0.842
	Yes	0.090	0.054	0.013	0.140
JOB LOSS	No	0.965	0.980	0.939	0.101
	Yes	0.035	0.020	0.061	0.899
COVARIATES					
POVERTY	Persistent	0.242	0.336	0.258	0.250
	Recurrent	0.145	0.118	0.173	0.177
	Transient	0.613	0.546	0.570	0.573
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.411	0.377	0.405	0.438
	2 years	0.277	0.221	0.251	0.244
	3 years	0.207	0.202	0.248	0.175
	4 years	0.106	0.200	0.096	0.143

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A6: France – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Cluster Size	0.507	0.209	0.145	0.139
INDICATORS					
AGE	18-24 y.o.	0.294	0.000	0.994	0.193
	25-44 y.o.	0.334	0.103	0.005	0.710
	45-64 y.o.	0.371	0.897	0.001	0.098
GENDER	Male	0.532	0.522	0.480	0.197
	Female	0.468	0.479	0.520	0.803
EDUCATION	Primary	0.341	0.622	0.303	0.457
	Mid level (Upper Secondary)	0.473	0.323	0.452	0.431
	Tertiary	0.186	0.055	0.245	0.112
ECONOMIC STATUS	Working full-time	0.724	0.000	0.001	0.001
	Working part-time	0.258	0.000	0.001	0.039
	Unemployed	0.000	0.263	0.276	0.442
	Pupil, student, trainee	0.000	0.000	0.691	0.022
	Retirement	0.000	0.367	0.000	0.000
	Disabled/unfit for work	0.001	0.197	0.006	0.170
	Domestic tasks	0.010	0.089	0.000	0.283
	Other inactive	0.007	0.083	0.025	0.043
HOUSEHOLD COMPOSITION	One adult	0.184	0.298	0.081	0.080
	Two adults	0.206	0.385	0.187	0.016
	Single parent	0.043	0.002	0.000	0.217
	Two adults, some children	0.295	0.029	0.017	0.553
	Three and more adults, some or no children	0.273	0.287	0.715	0.135
WORKERS	1 working adult	0.530	0.198	0.313	0.393
	2+ working adults	0.470	0.046	0.249	0.001
	No working adult	0.000	0.756	0.438	0.606
CHILD	No	0.910	1.000	0.990	0.710
	Yes	0.084	0.000	0.012	0.291
JOB LOSS	No	0.958	0.898	0.879	0.691
	Yes	0.042	0.102	0.121	0.309
COVARIATES					
POVERTY	Persistent	0.161	0.267	0.244	0.292
	Recurrent	0.125	0.102	0.161	0.214
	Transient	0.714	0.630	0.595	0.494
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.565	0.459	0.403	0.312
	2 years	0.226	0.245	0.288	0.285
	3 years	0.147	0.114	0.155	0.180
	4 years	0.063	0.181	0.155	0.223

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A7: Italy – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Cluster Size	0.363	0.277	0.181	0.180
INDICATORS					
AGE	18-24 y.o.	0.187	0.017	0.891	0.151
	25-44 y.o.	0.391	0.230	0.109	0.833
	45-64 y.o.	0.422	0.753	0.000	0.017
GENDER	Male	0.693	0.278	0.455	0.346
	Female	0.307	0.722	0.545	0.654
EDUCATION	Primary	0.548	0.822	0.236	0.550
	Mid level (Upper Secondary)	0.357	0.140	0.650	0.396
	Tertiary	0.095	0.038	0.114	0.054
ECONOMIC STATUS	Working full-time	0.843	0.000	0.004	0.323
	Working part-time	0.156	0.000	0.033	0.046
	Unemployed	0.000	0.187	0.398	0.125
	Pupil, student, trainee	0.000	0.000	0.498	0.003
	Retirement	0.000	0.143	0.000	0.000
	Disabled/unfit for work	0.000	0.048	0.000	0.005
	Domestic tasks	0.000	0.502	0.027	0.441
	Other inactive	0.000	0.120	0.041	0.058
HOUSEHOLD COMPOSITION	One adult	0.131	0.131	0.072	0.000
	Two adults	0.101	0.234	0.044	0.000
	Single parent	0.012	0.009	0.000	0.096
	Two adults, some children	0.242	0.088	0.002	0.846
	Three and more adults, some or no children	0.514	0.538	0.882	0.058
WORKERS	1 working adult	0.574	0.322	0.508	0.793
	2+ working adults	0.426	0.107	0.231	0.051
	No working adult	0.000	0.571	0.262	0.156
CHILD	No	0.986	0.994	1.000	0.629
	Yes	0.014	0.006	0.000	0.372
JOB LOSS	No	0.962	0.922	0.861	0.896
	Yes	0.038	0.078	0.139	0.104
COVARIATES					
POVERTY	Persistent	0.294	0.435	0.380	0.402
	Recurrent	0.132	0.127	0.172	0.160
	Transient	0.575	0.439	0.448	0.438
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.395	0.286	0.269	0.289
	2 years	0.256	0.225	0.261	0.238
	3 years	0.181	0.208	0.239	0.211
	4 years	0.169	0.281	0.232	0.261
	Mean	2.124	2.484	2.433	2.444

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A8: Latvia – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Cluster Size	0.436	0.213	0.207	0.145
INDICATORS					
AGE	18-24 y.o.	0.038	0.995	0.212	0.013
	25-44 y.o.	0.542	0.003	0.361	0.154
	45-64 y.o.	0.420	0.002	0.427	0.833
GENDER	Male	0.407	0.371	0.535	0.532
	Female	0.593	0.629	0.465	0.468
EDUCATION	Primary	0.242	0.548	0.249	0.269
	Mid level (Upper Secondary)	0.671	0.360	0.667	0.560
	Tertiary	0.088	0.092	0.084	0.171
ECONOMIC STATUS	Working full-time	0.690	0.409	0.002	0.002
	Working part-time	0.092	0.027	0.000	0.000
	Unemployed	0.009	0.161	0.935	0.130
	Pupil, student, trainee	0.000	0.295	0.000	0.000
	Retirement	0.084	0.000	0.000	0.445
	Disabled/unfit for work	0.035	0.000	0.000	0.266
	Domestic tasks	0.042	0.026	0.062	0.012
	Other inactive	0.049	0.082	0.000	0.146
HOUSEHOLD COMPOSITION	One adult	0.092	0.009	0.090	0.313
	Two adults	0.076	0.034	0.040	0.411
	Single parent	0.055	0.007	0.039	0.008
	Two adults, some children	0.186	0.120	0.212	0.044
	Three and more adults, some or no children	0.590	0.830	0.618	0.224
WORKERS	1 working adult	0.588	0.388	0.363	0.077
	2+ working adults	0.412	0.422	0.112	0.001
	No working adult	0.000	0.190	0.524	0.922
CHILD	No	0.883	0.721	0.902	0.988
	Yes	0.117	0.280	0.100	0.012
JOB LOSS	No	0.942	0.994	0.251	0.980
	Yes	0.058	0.006	0.749	0.020
COVARIATES					
POVERTY	Persistent	0.246	0.269	0.323	0.436
	Recurrent	0.188	0.336	0.241	0.228
	Transient	0.566	0.395	0.435	0.336
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.424	0.277	0.317	0.205
	2 years	0.254	0.224	0.257	0.197
	3 years	0.178	0.342	0.207	0.211
	4 years	0.144	0.157	0.220	0.387
	Mean	2.042	2.379	2.330	2.781

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A9: Netherlands – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3
	Cluster Size	0.452	0.293	0.255
INDICATORS				
AGE	18-24 y.o.	0.187	0.470	0.439
	25-44 y.o.	0.619	0.026	0.004
	45-64 y.o.	0.195	0.504	0.557
GENDER	Male	0.394	0.595	0.510
	Female	0.606	0.405	0.490
EDUCATION	Primary	0.235	0.377	0.451
	Mid level (Upper Secondary)	0.502	0.500	0.493
	Tertiary	0.264	0.124	0.057
ECONOMIC STATUS	Working full-time	0.362	0.002	0.379
	Working part-time	0.458	0.002	0.419
	Unemployed	0.000	0.126	0.000
	Pupil, student, trainee	0.053	0.337	0.068
	Retirement	0.000	0.083	0.000
	Disabled/unfit for work	0.000	0.215	0.001
	Domestic tasks	0.126	0.212	0.092
	Other inactive	0.000	0.024	0.041
HOUSEHOLD COMPOSITION	One adult	0.225	0.431	0.002
	Two adults	0.161	0.420	0.349
	Single parent	0.278	0.013	0.001
	Two adults, some children	0.335	0.123	0.088
	Three and more adults, some or no children	0.001	0.014	0.559
WORKERS	1 working adult	0.943	0.004	0.184
	2+ working adults	0.055	0.002	0.803
	No working adult	0.003	0.994	0.013
CHILD	No	0.885	1.000	1.000
	Yes	0.110	0.000	0.000
JOB LOSS	No	0.990	1.000	1.000
	Yes	0.010	0.000	0.000
COVARIATES				
POVERTY	Persistent	0.239	0.525	0.175
	Recurrent	0.024	0.172	0.122
	Transient	0.737	0.304	0.702
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.533	0.230	0.627
	2 years	0.205	0.172	0.185
	3 years	0.165	0.246	0.022
	4 years	0.097	0.352	0.166
	Mean	1.826	2.720	1.728

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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Table A10: United Kingdom – Longitudinal data (individuals at-risk-of-poverty at least once)

		Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Cluster Size	0.315	0.264	0.240	0.181
INDICATORS					
AGE	18-24 y.o.	0.057	0.051	0.445	0.392
	25-44 y.o.	0.215	0.501	0.088	0.414
	45-64 y.o.	0.728	0.447	0.467	0.195
GENDER	Male	0.565	0.645	0.462	0.072
	Female	0.435	0.355	0.538	0.928
EDUCATION	Primary	0.392	0.204	0.173	0.216
	Mid level (Upper Secondary)	0.447	0.518	0.606	0.663
	Tertiary	0.161	0.278	0.221	0.121
ECONOMIC STATUS	Working full-time	0.001	0.774	0.475	0.002
	Working part-time	0.000	0.216	0.291	0.181
	Unemployed	0.324	0.001	0.049	0.001
	Pupil, student, trainee	0.001	0.000	0.121	0.210
	Retirement	0.206	0.000	0.000	0.000
	Disabled/unfit for work	0.361	0.001	0.019	0.017
	Domestic tasks	0.064	0.000	0.039	0.588
	Other inactive	0.043	0.008	0.006	0.001
HOUSEHOLD COMPOSITION	One adult	0.239	0.161	0.000	0.000
	Two adults	0.344	0.238	0.157	0.069
	Single parent	0.053	0.061	0.000	0.290
	Two adults, some children	0.179	0.492	0.168	0.537
	Three and more adults, some or no children	0.185	0.048	0.675	0.103
WORKERS	1 working adult	0.146	0.670	0.093	0.519
	2+ working adults	0.001	0.330	0.905	0.061
	No working adult	0.853	0.001	0.002	0.420
CHILD	No	0.977	0.891	1.000	0.739
	Yes	0.023	0.109	0.000	0.260
JOB LOSS	No	0.860	0.951	1.000	1.000
	Yes	0.140	0.049	0.000	0.000
COVARIATES					
POVERTY	Persistent	0.314	0.151	0.074	0.272
	Recurrent	0.193	0.082	0.056	0.210
	Transient	0.494	0.767	0.870	0.517
NUMBER OF YEARS AT-RISK-OF-POVERTY	1 year	0.351	0.589	0.681	0.343
	2 years	0.262	0.235	0.245	0.284
	3 years	0.161	0.103	0.049	0.239
	4 years	0.227	0.073	0.026	0.135
	Mean	2.263	1.661	1.420	2.165

Source: EU-SILC LONGITUDINAL UDB 2009 – version 2 of March 2012– DG EMPL calculations.

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