

# Poverty Dynamics of Social Risk Groups in the EU

An analysis of the EU Statistics on Income  
and Living Conditions, 2005 to 2014

Dorothy Watson  
Bertrand Maître  
Raffaele Grotti  
Christopher T. Whelan

# Poverty Dynamics of Social Risk Groups in the EU

An analysis of the EU Statistics on Income  
and Living Conditions, 2005 to 2014

Dorothy Watson  
Bertrand Maître  
Raffaele Grotti  
Christopher T. Whelan

Published by  
Department of Employment Affairs and Social Protection  
Arás Mhic Dhiarmada, Store Street  
Dublin 1, Ireland  
and  
The Economic and Social Research Institute  
Whitaker Square, Sir John Rogerson's Quay  
Dublin 2, Ireland

ISBN: 978-1-908109-46-0

January 2018

## Authors

**Dorothy Watson** is an Associate Research Professor at the Economic and Social Research Institute (ESRI) and Adjunct at the Department of Sociology, Trinity College Dublin. More information on the author is available online at:

<http://www.esri.ie/person/?userid=130>

**Bertrand Maître** is a Senior Research Officer at the Economic and Social Research Institute (ESRI) and Adjunct at Trinity College Dublin. More information on the author is available online at: <http://www.esri.ie/person/?userid=105>

**Raffaele Grotti** is a Postdoctoral Research Fellow in the Social Research Division at the ESRI. More information on the author is available online at:

<http://www.esri.ie/person/?userid=1668>

**Christopher T. Whelan** is Professor Emeritus of Sociology at University College Dublin and the Geary Institute of Public Policy. More information on the author is available online at: <http://www.ucd.ie/geary/aboutus/people/christopherwhelan/>

This Report and associated Research Briefing are available on the Department of Employment Affairs and Social Protection, Social Inclusion and ESRI websites.

Any part of this report may be quoted using the following reference:

Watson, D., Maître, B., Grotti, R., and Whelan, C.T. (2018) *Poverty Dynamics of Social Risk Groups in the EU: An analysis of the EU Statistics on Income and Living Conditions, 2005 to 2015*, Social Inclusion Report No. 7. Dublin: Department of Employment Affairs and Social Protection and the Economic and Social Research Institute.

This report was commissioned from the Economic and Social Research Institute (ESRI) by the Department of Employment Affairs and Social Protection, as the final report in a research programme co-ordinated by the Social Inclusion Division to monitor poverty trends under the *National Action Plan for Social Inclusion 2007–2017*. This report is jointly published by the Department and the ESRI as part of the Social Inclusion Report Series. The author(s) are solely responsible for the views, opinions, findings, conclusions and/or recommendations expressed. These are not attributable to the ESRI, which does not itself take institutional policy positions, and are not attributable to the Department of Employment Affairs and Social Protection. The researchers are responsible for the accuracy of the research and all reports are peer-reviewed.

## Abstract

This paper draws on the EU-SILC dataset to investigate changes over the period 2004 to 2014 in the trends and dynamics in poverty for social risk groups in selected European countries representing different welfare regimes (Social democratic, Corporatist, Liberal and Southern). Social risk groups differ in the challenges they face to their capacity to convert resources (such as capital and skills) into desired outcomes (goods and services). They include lone parents, adults with a disability, young adults, children, older adults and the reference group of other working-age adults. The comparative element of the project allowed us to assess whether certain welfare regimes were better at protecting more vulnerable groups. We address three research questions: Do the same social risk groups face higher risks of poverty (and greater persistence of poverty) in all countries? Is the 'social risk gap' – the difference in poverty across groups – larger in countries like Ireland than in Social democratic countries like Sweden? Did the recession lead to polarisation between the vulnerable social risk groups and other working-age adults?

We find that lone parents and families of working-age adults with a disability experience higher deprivation and poverty rates across all countries. Ireland, along with the other Liberal regime country, the UK, stood out as having poorer outcomes for the vulnerable groups, especially in terms of material deprivation. There was some evidence of polarisation over time in Ireland and the UK to the detriment of the vulnerable groups. This was not a pattern found across most countries, however.

**Key words:** poverty; deprivation; poverty dynamics; persistent poverty; social risk groups; recession; Comparative; European Union Statistics on Income and Living Conditions

## Table of contents

<b>Authors</b> .....	<b>i</b>
<b>Abstract</b> .....	<b>iii</b>
<b>Authors' acknowledgements</b> .....	<b>ix</b>
<b>Foreword from the Minister for Employment Affairs &amp; Social Protection</b> .....	<b>x</b>
<b>Brollach ón Aire Gnóthaí Fostaíochta &amp; Coimirce Sóisialaí</b> .....	<b>xi</b>
<b>Executive summary</b> .....	<b>xii</b>
Background.....	xii
Data and methods.....	xiii
Differences between social risk groups.....	xiv
Social risk and country .....	xv
Impact of the recession: polarisation or convergence? .....	xvi
Policy implications.....	xvii
<b>Chapter 1: Introduction and context</b> .....	<b>1</b>
1.1 Introduction .....	1
1.2 Concepts.....	2
1.2 The economic context.....	5
1.3 Previous research .....	6
1.4 Research questions .....	16
1.5 Report outline.....	17
<b>Chapter 2: Data and methodology</b> .....	<b>19</b>
2.1 Introduction .....	19
2.2 Data .....	19
2.3 Measuring poverty .....	23
2.4 Measuring social risk group membership.....	28
2.5 Analysis methodology .....	33
2.6 Summary.....	34
<b>Chapter 3: Deprivation and Poverty by Social Risk Group</b> .....	<b>35</b>
3.1 Introduction .....	35
3.2 Deprivation and Poverty Dynamics .....	35
3.3 Overall risk of income poverty and material deprivation by social risk .....	36

3.3 Persistent material deprivation and income poverty by social risk .....	39
3.8 Summary.....	42
<b>Chapter 4: Country and Regime Differences .....</b>	<b>44</b>
4.1 Introduction .....	44
4.2 Deprivation and poverty by social risk group and country .....	44
4.3 Country and regime differences in the social risk gap.....	46
4.7 Absolute social risk gap in persistent deprivation and poverty .....	50
4.7 Summary.....	53
<b>Chapter 5: Changes over time – the economic crisis .....</b>	<b>54</b>
5.1 Introduction .....	54
5.1 Change over time by social risk group .....	54
5.2 Country differences in change between 2005 and 2014 .....	58
5.3 Country differences in change in persistent poverty and deprivation .....	60
5.4 Summary.....	62
<b>Chapter 6: Discussion and Implications .....</b>	<b>64</b>
6.1 Introduction .....	64
6.2 Background on the Countries and the Period .....	65
6.3 Deprivation and Poverty by Social Risk .....	66
6.4 Country differences in the social risk gap.....	68
6.5 Change over time – polarisation or convergence by social risk? .....	69
6.6 Limitations and further research.....	72
6.7 Policy discussion.....	73
<b>Appendix tables.....</b>	<b>77</b>
<b>References.....</b>	<b>83</b>
<b>Glossary.....</b>	<b>90</b>

## List of Figures

Figure 1.1 Unemployment rates, 2005 to 2014 .....	5
Figure 2.1: Material Deprivation trends from 2005 to 2014 .....	24
Figure 2.2: Income Poverty trends from 2005 to 2014 .....	27
Figure 3.1 Deprivation and Poverty Dynamics by period (average across countries) ..	35
Figure 3.2 Deprivation in either wave by social risk group .....	37
Figure 3.3 Poverty in either wave by social risk group .....	37
Figure 3.4 Ratio of Deprivation rate to poverty rate by social risk group .....	38
Figure 3.5 Persistent and Transient Deprivation by social risk group.....	40
Figure 3.6 Persistent and Transient Poverty by social risk group.....	41
Figure 4.1 Deprivation rates of social risk groups by country .....	45
Figure 4.2 Income poverty rate of social risk groups by country .....	46
Figure 4.3 The absolute social risk gap in deprivation by country .....	49
Figure 4.4 The absolute social risk gap in poverty by country.....	50
Figure 4.5 Persistent deprivation and absolute social risk gap by country .....	51
Figure 4.6 Persistent income poverty and absolute social risk gap by country .....	52
Figure 5.1 Deprivation rates by period and social risk group.....	55
Figure 5.2 Poverty rates by period and social risk group.....	56
Figure 5.3 Change between 2005-06 and 2013-14 in the social risk gap in material deprivation (either wave) by country .....	59
Figure 5.4: Change between 2005-06 and 2013-14 in the social risk gap in income poverty (either wave) by country .....	60
Figure 5.5 Change between 2005-06 and 2013-14 in the social risk gap in persistent material deprivation (both waves) by country.....	61
Figure 5.6 Change between 2005-06 and 2013-14 in the social risk gap in persistent income poverty (both waves) by country.....	62
Appendix Figure A2.1: Change in poverty threshold for single adult, 2005-2014 in eleven EU countries .....	78
Appendix Figure A2.2: Percentage of Adults aged 18-59 in Jobless Households in selected Countries .....	78



## List of Tables

Table 2.1 Number of cases available (in '000s) by country and pair of years. ....	22
Table 2.2 Social risk groups – definitions and sizes of groups, average across countries and periods.....	29
Table 2.3 Sizes of social risk groups by country, average across periods. ....	30
Table 2.4: Percentage of Household Reference Persons who have third level education by social risk group and country .....	32
Table 4.1 Calculating the social risk gap in deprivation for lone parents.....	48
Table 5.1 Calculating change between 2005-06 and 2013-14 in social risk gap.....	57
Appendix Table A2.1 Social risk groups – number of cases by country and period .	77
Appendix Table A2.2 Impact of lone parenthood and disability on poverty and deprivation in either wave (odds ratios).....	79
Appendix Table A5.1 Number of cases for each social risk group by country and period.....	80
Appendix Table A5.2 Material deprivation in either wave by period and country for vulnerable social risk groups and reference group.....	81
Appendix Table A5.3 Income Poverty in either wave by period and country for vulnerable social risk groups and reference group.....	81
Appendix Table A5.4 Persistent material deprivation by period and country for vulnerable social risk groups and reference group.....	82
Appendix Table A5.5 Persistent Income Poverty by period and country for vulnerable social risk groups and reference group .....	82

## List of acronyms and abbreviations

<b>CSO</b>	Central Statistics Office
<b>EU-SILC</b>	European Union Statistics on Income and Living Conditions
<b>GDP</b>	Gross Domestic Product
<b>NAPinclusion</b>	National Action Plan for Social Inclusion
<b>QNHS</b>	Quarterly National Household Survey

### Two-letter country codes

<b>FI</b>	Finland
<b>SE</b>	Sweden
<b>NL</b>	Netherlands
<b>AT</b>	Austria
<b>BE</b>	Belgium
<b>FR</b>	France
<b>IE</b>	Ireland
<b>UK</b>	United Kingdom
<b>IT</b>	Italy
<b>ES</b>	Spain
<b>EL</b>	Greece

## **Authors' acknowledgements**

The authors are grateful to the anonymous peer reviewers who provided comments on an earlier draft of this work, and also to our colleagues Emer Smyth and Alan Barrett for their suggestions. We thank Terry Corcoran, Tracey Ahern and Sarah O'Halloran of the Department of Employment Affairs and Social Protection for comments on earlier drafts of this work. The members of the Technical Advisory Group on Social Inclusion have been unfailingly supportive and engaged. Finally, we owe a debt of gratitude to the staff of the Central Statistics Office (CSO) for their assistance throughout this project, and to the respondents to the Survey on Income and Living Conditions (SILC) for giving so generously of their time to make this research possible. The opinions expressed here and any remaining errors and omissions are the sole responsibility of the authors.



## **Foreword from the Minister for Employment Affairs & Social Protection**

The complex and challenging nature of poverty is universally well acknowledged. However, as a society it is essential we do everything possible to tackle poverty and social exclusion to promote the well-being of all in the community. In order to do this there is a need for broader measures of social progress that are more responsive to and reflective of underlying social changes rather than focusing on purely income-related measures.

In that setting this report on *Poverty Dynamics of Social Risk Groups in the EU* is a appropriate and interesting addition to the evidence on social policy. The analysis utilises a dual measurement of poverty to assess the significance of different systems of social and employment protection welfare regimes and their effectiveness in protecting vulnerable groups in countries affected in varying degrees over an unprecedented decade of boom, recession and early recovery.

The results from this study will be used to inform our understanding of poverty and the actions and interventions needed to achieve our national social targets. I commend the team in the ESRI for their innovative research over many years which aid the assessment and evaluation of social progress. The report makes a valuable contribution to this work. I also want to thank the Social Inclusion Division in the Department which instigated the study and managed it through to its publication.

A handwritten signature in blue ink that reads "Regina Doherty". The signature is written in a cursive style and is enclosed in a thin blue rectangular border.

**Regina Doherty, TD**  
**Minister for Social Protection**



## **Brollach ón Aire Gnóthaí Fostaíochta & Coimirce Sóisialaí**

Aithnítear go maith ar fud an domhain go mbaineann castacht agus dúshlán leis an mbochtaineacht. Is den bhunriachtanas é, áfach, go ndéanfaimid mar shochaí gach ar féidir linn chun dul i ngleic leis an mbochtaineacht agus leis an eisiámh sóisialta d'fhonn leas an phobail uile a chur chun cinn. Ionas gur féidir é seo a dhéanamh, bíonn gá le bearta níos leithne ó thaobh an fhoráis shóisialta de a bhíonn níos freagrúla agus níos táscaí i dtaca leis na bunathruithe sóisialta, de rogha ar bhéim a chur ar bhearta nach mbíonn iontu ach bearta ó thaobh an ioncaim de.

Ina thaobh sin is rud cuí suimiúil atá sa tuarascáil seo ar *Dhinimic Bhochtaineachta na nDreamanna Riosca Shóisialta san Aontas Eorpach* agus cuireann sí leis an bhfianaise ar an mbeartas sóisialta. Baineann an anailís feidhm as déthomhas ar an mbochtaineacht chun measúnacht a dhéanamh ar shuntasacht na gcóras éagsúil leasa ó thaobh na coimirce sóisialaí agus fostaíochta agus ar a n-éifeachtacht chun dreamanna leochaileacha a chosaint i dtíortha a bhí buailte ar shlíte éagsúla thar na deich mbliana seo gan fasach inar tharla borradh, cliseadh agus luath-théarnamh.

Bainfead feidhm as torthaí an staidéir seo chun ár dtuiscint a mhúnlú ar an mbochtaineacht agus ar na gníomhartha agus na hidirghabhálacha is gá d'fhonn ár spriocanna sóisialta náisiúnta a bhaint amach. Molaim an bhuíon san Institiúid Taighde Eacnamaíochta agus Sóisialta as a dtaighde nuálach thar mhórán blianta a chuidíonn le measúnacht agus meastóireacht ar an bhforás sóisialta. Déanann an tuarascáil breis agus a cion ar son na hoibre. Thairis sin, is mian liom mo bhuíochas a ghabháil leis an Rannán um Chuimsiú Sóisialta sa Roinn a thionscain an staidéar agus a bhainistigh í suas go dtí a fhoilseachán.



**Regina Doherty, TD**

**Aire Gnóthaí Fostaíochta & Coimirce Sóisialaí**

## Executive summary

### Background

This paper draws on the EU-SILC dataset to investigate changes over the period 2004 to 2014 in the trends and dynamics in poverty for social risk groups in Ireland compared to selected European countries. The comparative analysis allows us to assess the significance of different systems of social and employment protection (welfare regime: Social democratic, Corporatist, Liberal and Southern) and their effectiveness in protecting vulnerable groups in countries affected to very different degrees by the recession.

We distinguish social risk groups on the basis of their different capacities to meet their needs through the market, which is typically by means of paid work, either directly through their own work or indirectly through work of other family members. The social risk groups are defined to be mutually exclusive and to cover the entire population. We include as a reference group those with fewer barriers to meeting their needs through the market. The groups are:

- Lone parents and their children
- Working-age adults with a disability and their children
- Other children under age 18 (i.e. not in lone parent families or families affected by working-age disability)
- Other young adults (aged 18 to 29)
- Other working-age adults (aged 30 to 65, the reference group) and
- Older people (aged 66 and over).

We use two indicators of poverty (material deprivation and income poverty) in the report and we address three research questions:

1. Do we find higher risks of poverty (and greater persistence of poverty) among certain social risk groups in all countries?
2. Is the 'social risk gap' – the difference in poverty rates across groups – larger in countries like Ireland than in Social democratic countries like Sweden? Because of the greater emphasis on universalism and redistribution in Social democratic countries, we might expect this to be the case.
3. Did the recession lead to polarisation between high-risk and low-risk groups?

## Data and methods

The data for the report come from the EU Statistics on Income and Living Conditions (SILC) – a database of annual micro-data provided by the EU countries and co-ordinated by the European Statistical Office (Eurostat). Here we focus on the data from three pairs of waves representing pre-recession, early recession and early recovery (2005-2006, 2008-2009 and 2013-2014). The analysis includes cases that were present in a household in both waves of each pair.

We focus on eleven countries from four different welfare regimes (Eurofound 2007) from among the European countries most similar to Ireland in terms of level of development:

- The Social democratic regime is characterised by its emphasis on universalism and redistribution, in the form of generous social welfare and unemployment benefits (Sweden, Finland and the Netherlands),
- The Corporatist regime places less emphasis on redistribution and entitlements are linked to lifelong employment (Austria, Belgium, France)
- The Liberal regime emphasises provision through the market with the state acting only in order to support the market (Ireland and the UK)
- The Southern regime is characterised by an emphasis on family as the provider of welfare with labour market policies relatively undeveloped and selective (Italy, Spain and Greece).

The two indicators of social inclusion we examine are material deprivation and income poverty. We use the EU definition of material deprivation which involves an inability to afford three or more of the following: annual holiday, meeting unexpected expenses, avoiding arrears on household bills, a protein meal every second day, adequate heating of the dwelling, durable goods like a washing machine, colour television, telephone or car.<sup>1</sup> Income poverty involves living in a household where the annual income, after adjusting for household size and composition, is below 60 percent of the median income in the country. Using the longitudinal data, we

---

<sup>1</sup> Note that this differs from the eleven-item Irish national indicator of basic deprivation, although the two are correlated.

examined the risk of being deprived or income poor in at least one wave and across both waves.

### **Differences between social risk groups**

Two groups stood out as having substantially higher levels of poverty: those in lone parent families and, at some distance, those in families affected by working age disability. Across the eleven countries and three periods, 43 per cent of lone parents and 28 per cent of working age adults with a disability experienced material deprivation in at least one of two consecutive years compared to 13 per cent for the reference group (other adults aged 30 to 65). The pattern for income poverty was similar in that lone parents and working age adults with a disability had the highest rates of being poor in either of two consecutive years (38 and 26 per cent, respectively) compared to 15 per cent for other adults aged 30-64.

The ratio of the deprivation rate to the poverty rate was higher for these vulnerable groups (1.11 for lone parents and 1.09 for working age adults with a disability compared to 0.84 for other adults aged 30-65). The higher ratio suggests greater difficulty in translating resources (income level) into desired goods and services.

Research based on panel data has established that poverty is an experience of varying duration Bane and Ellwood 1986; Barnes et al. 2002; Jenkins 1999; Fouarge & Layte, 2005). The distinction between persistent and transient poverty is important because it matters whether many people experience poverty but quickly escape from it or poverty is a persistent state. Persistent material deprivation and income poverty are understood here as being in a household that is deprived or poor in two consecutive years. Persistent deprivation and poverty followed the same general pattern across groups as being deprived or poor in either wave: it is highest for lone parent families and families of those of working age with a disability. The persistent material deprivation rate was 24 per cent for lone parents and 14 per cent for working age adults with a disability compared to 5 per cent for the reference group of other adults aged 30-65. The corresponding figures for persistent income poverty were 23 per cent for lone parents and 13 per cent for working age adults with a disability compared to 7 per cent for the reference group.



## **Social risk and country**

The overall levels of both material deprivation and income poverty were lowest in the Social democratic countries (Sweden, Finland and the Netherlands). Looking at the material deprivation rate in either of two consecutive years for the reference group (other adults aged 30-65), the rate was between 3 per cent and 7 per cent in the Social democratic countries, compared to 9 to 12 per cent in the Corporatist countries, 16 per cent in Ireland, 15 and 19 per cent in Spain and Italy, respectively, and by far the highest figure of 31 per cent in Greece.

As noted above, lone parent families and families of working-age adults with a disability emerged in all countries as having among the highest risks of both material deprivation and income poverty. The material deprivation rates in either of two consecutive years ranged from 23 to 56 per cent for lone parent families and from 15 to 49 per cent for families affected by working age disability.

To examine whether lone parents and working-age adults with a disability were less disadvantaged in the Social democratic countries, we focused on the social risk gap: the percentage point difference in the material deprivation or poverty rate for the two vulnerable groups compared to the reference group of other adults aged 30-65. We expected that the generally higher levels of social support combined with state provision or subsidy of services would reduce the inequalities across social risk groups in the Social democratic countries. We found that the social risk gap was not appreciably smaller in the Social democratic countries than elsewhere, but that the gap tended to be noticeably larger in the two Liberal countries, the UK and Ireland. This pattern was most marked for deprivation, especially for persistent deprivation, and was clearer for lone parents than for working-age adults with a disability. The social risk gap in persistent poverty was 26 percentage points for lone parents in Ireland, for instance, compared to between 5 and 20 percentage points elsewhere. The social risk gap in persistent poverty for working age adults with a disability was 14 percentage points in Ireland, tied with Greece, compared to between 5 and 11 percentage points in the other countries.

**Impact of the recession: polarisation or convergence?**

The third research question concerned the impact of the recession across social risk groups. The recession varied in its impact across countries, with particularly sharp rises in unemployment in Greece, Spain, Italy and Ireland. We anticipated that the recession might have a greater impact on the vulnerable groups because of the additional barriers they face to labour market access.

We again focused on the social risk gap: the percentage point difference in deprivation and poverty between the reference group (other adults aged 30-65) and the vulnerable groups (lone parents and working-age adults with a disability). Was there evidence of a greater polarisation (an increase in the social risk gap for vulnerable groups) with the recession?

On average across the eleven countries, we saw an increase in material deprivation between 2005 and 2014 for all social risk groups except older adults, where the rate remained relatively stable. There was no evidence of polarisation in material deprivation – an increase in the gap between the two vulnerable groups and the reference group. There is some suggestion of an increase in the social risk gap in income poverty for lone parents, but not for working age adults with a disability.

There were differences in this respect between countries, however. Again, the most distinctive pattern was found for the two Liberal countries, the UK and Ireland. There was evidence of polarisation in material deprivation in the two Liberal countries, particularly for persistent deprivation. On the other hand, the pattern for income poverty was different. The social risk gap in income poverty tended to narrow in the two Liberal countries. The conclusions we would draw about whether the recession in Ireland and the UK led to a polarisation or convergence of risk across social risk groups would differ depending on whether we focus on deprivation or poverty. The pattern for material deprivation suggests polarisation while the pattern for income poverty suggests convergence. We note in the report that because of the rapidly changing overall levels of income, which affected the income poverty threshold, the income poverty indicator did not perform well at capturing the changes in resources available to households in the recession.

## Policy implications

The approach taken here was to provide a very general overview of how social risk groups fared across time and across eleven countries. The analysis does not lend itself to a detailed evaluation of the effectiveness of specific policies, but it does provide a number of general lessons for policy.

- The countries with more developed welfare states, such as the Social democratic countries, were more effective at protecting the living standards of the population in general from the impact of the recession.
- The same social risk groups emerged as being particularly vulnerable in all countries (especially lone parents and working-aged adults with a disability). While their circumstances were better if they lived in a Social democratic country, the gap between their deprivation levels and those of other groups was about the same as in countries in the Corporatist regime. In other words, the universalist approach to welfare appears to protect the population in general, but without favouring the high-risk groups.
- The Liberal countries, with their means-tested, targeted approach that emphasises cash transfers did less well at protecting the living standards of vulnerable groups during the recession. The social risk gap in deprivation was larger in these countries and increased over time.
- Because of their emphasis on cash transfers, however, if we focus on income poverty there is some mixed evidence of a narrowing of the social risk gap in the Liberal countries. This is as likely to be due to the shifting poverty threshold, however, as any real change in the circumstances of vulnerable households.
- Lone parenthood and working-age disability are important in accounting for the higher poverty rate among children than adults. This points to the importance of paying attention to the needs of these families. Policies that focus on children in general may be less effective at reducing the child poverty levels than policies which address the needs of families headed by lone parents or adults with a disability.
- An emphasis on whether there was a polarisation or convergence of social risk might lead to missing some important nuances. Polarisation can hide a good news story if the circumstances of all families improve but the polarisation is due to a faster improvement for the initially advantaged group. Convergence can hide

a worrying story if it is driven by a deterioration in the circumstances of the initially advantaged group with no real improvement for the vulnerable group.

- Having robust measures of poverty is crucial for accurate monitoring of the impact of poverty reduction policies. In terms of poverty measurement, there are two points worth emphasising. First, the cross-sectional and longitudinal measures of poverty identify the same social risk groups as being most vulnerable to poverty. This is not an inevitable result: cross-sectional measures might mis-identify the vulnerable groups by giving equal weight to transient and persistent poverty.
- The second implication for poverty measurement is the importance of having multiple indicators. In a period of rapid shifts in incomes, a direct measure of poverty such as the material deprivation indicator proved invaluable in tracing the changing circumstances of household over the course of the recession.

## Chapter 1: Introduction and context

### 1.1 Introduction

Since 2008, Europe has been through what has been termed the Great Recession, with countries such as Ireland, Greece and Spain particularly badly affected. The dramatic changes in the circumstances of families has prompted debates on whether the result was a polarisation of existing group differences, with the vulnerable more affected, or a 'squeezed middle' where the middle classes and middle-aged were worse affected. In this report, we seek to throw light on these issues by examining deprivation and poverty dynamics of social risk groups across eleven European countries between 2005 and 2014.

This report extends the work of the authors in recent years (e.g. Russell, Maître and Nolan, 2010; Watson et al, 2016) to investigate the poverty and deprivation experience of different social risk groups. Building on earlier work which monitored the evolution of income poverty and deprivation for different life cycle groups (Whelan & Maître, 2008; Russell, Maître and Nolan, 2010), Watson et al. (2016) developed the concept of social risk groups as groups that might be expected to differ in their risk of poverty due to non-social class personal or family factors likely to reduce their access to the market. The conceptual understanding is outlined below, but they include different life cycle groups (children, working-age adults and older adults), lone parents and their children and working age adults with a disability and their children.

The comparative element of the project allows us to examine variations in the roles of the three pillars through which individuals in Western economies meet their needs: markets, families and the state (Esping-Andersen, 1990). Markets are the main source of welfare for most working-age adults because their incomes come via the market and many of their welfare needs are met through purchasing goods and services. Families provide welfare through care services (mainly for children and adults with a disability), through pooling of income from the market, through capitalising on economies of scale and through pooling of risk such as the income shocks associated with illness or unemployment (Western et al, 2012). Finally, governments provide welfare by virtue of a redistributive social contract which has its roots in collective solidarity. The extent to which governments redistribute resources

varies according to the generosity of social transfers system and its targeting as well as according to the taxation system and its progressivity.

The issues addressed here will increase our understanding of the extent to which the experiences of social risk groups (families with children, older adults, lone parents) are shaped differently depending on the economic and policy contexts. By highlighting the ways in which Ireland is similar to, or different from, other countries we hope to draw lessons on where anti-poverty policies have been more effective.

## **1.2 Concepts**

### 1.2.1 Social Risk Groups

The conceptual understanding of social risk was developed in contrast to social class as an important principle of differentiation. Following the Weberian tradition, we could see social classes as distinguished on the basis of differing command over market resources (Goldthorpe, 2007). There are two main principles of social class differentiation. The first is that of employment status, with the distinction between employer and employee. The second relates to the nature of the employer-employee relationship, in particular the extent to which employees occupy positions of high skill or high trust which have a bearing on the extent to which their output can be monitored. Individuals are understood to possess a certain command over resources and experience varying degrees of security and prospects for advancement by virtue of their social class positions. Therefore, class affects not just the person's current situation, but their circumstances in the event of illness, disability and retirement.

Social class is not the only relevant principle of differentiation, however. In the study of poverty, certain groups have been identified as particularly at risk, including lone parents, older adults, children, the unemployed, those with low levels of education and people with a disability. Some groups could be argued to be distinguished based on class-related phenomena. Those with low levels of education and skills, for instance, could be encompassed within the class framework if we broaden the notion of assets to include not just capital but marketable skill (Wright, 1978). Other groups, such as 'the unemployed' or 'the poor', are better considered as having in common

an outcome that results from social class or other risk processes since the experience can be of short duration in many cases (Jenkins and Van Kerm, 2011).

Nevertheless, social class distinctions do not capture all of the principles of differentiation that are relevant to a heightened risk. Life course differences are an important element in distinguishing between groups, because of norms regarding the distribution of work across life stages and regarding the distribution of caring roles (MacMillan, 2005). The development of the European welfare state has been linked to a political commitment to smoothing out the supply of resources across the life cycle (DeWilde, 2003; Leisering and Liebfried, 1999). However, the life course perspective does not adequately encompass certain other dimensions of inequality to which the welfare state responds, such as lone parenthood and disability. Life course differences can be seen as a subset of a broader range of non-market social risks whose consequences are addressed by the welfare state. Social risk, in this sense, could also be seen as associated with challenges arising from the increasing 'commodification' of welfare in the post-industrial economy, whereby needs are increasingly met through the market rather than through the family or as an entitlement from the state (Taylor-Gooby, 2004; Esping-Andersen, 1990).

If social class captures differences in market power, social risk, as we use the term here, captures barriers to accessing the market in the first place. Here we distinguish non-market challenges to meeting one's material needs that are linked to:

- life-course stage: children and people older than 'working-age';
- personal resources: illness or disability may limit a person's capacity to work as well as involving additional costs associated with treatment, medication or disability-specific devices and aids (Cullinan, Gannon and Lyons, 2010);
- non-work caring responsibilities: responsibility for childcare or others who have an illness or disability is likely to reduce the time available for paid work;
- Outsider status: which affects young adults who are seeking their first jobs.

These barriers could be thought of in terms of Sen's notion of 'conversion factors' (1992, pp. 26-38). For Sen, resources are only of instrumental importance whereas what a person can do or be (their level of functioning) is intrinsically important (Sen,

2009). As Hick and Burchardt (2016, p.75) observe, this distinction becomes important to the extent that individuals differ in the amount of resources required to achieve a specific level of functioning. Sen labels these variations “conversion factors”. Thus the ability to convert social class resources into the typical bundle of goods and services considered normative in a society may be qualified by a range of additional factors relating to needs and associated demands and restrictions. Other groups could also be considered as experiencing different conversion factors based on the criteria above or similar. One group, in particular, would be recent migrants who, like young adults, are ‘outsiders’ in labour market terms. Depending on the context, they may also face less favourable treatment in the host country. We do not consider immigrants as a separate group in this report, however, as their experience will vary a great deal across country based on such factors as the relationship between their country of origin and their host country; the circumstances of their migration and the historical pattern of emigration to the host country. Doing justice to the national differences in experience goes beyond what can be accomplished in the present analysis.

One of the challenges of Sen’s work is to operationalize the concept of conversion factors into meaningful instruments for the purpose of policy making. There is a large body of research in the poverty and economic development literature that deals with the conceptualisation and measurement of the capability approach (Alkire, 2015; Chiappero-Martinetti and Roche, 2009; Robeyns, 2006; Grasso, 2006). The emphasis is often on constructing multi-dimensional indices, such as the Human Development Index (HDI) developed by the United Nations, to look at the actual outcomes achieved across a range of dimensions (health, accessing knowledge and standard of living in the case of HDI). Rather than emphasising the measurement of capability (the ‘outcome’), however, or on social class factors linked to possession of material resources and skills, here we focus on groups distinguished on the basis of differences in their capacities to deploy these resources and on the consequences of these differences for their poverty status.

In the remainder of this chapter, we begin by providing an overview of the economic context in the period covered by the analysis. Then we discuss previous research and analysis of poverty dynamics, the impact of the recession and social risk groups.



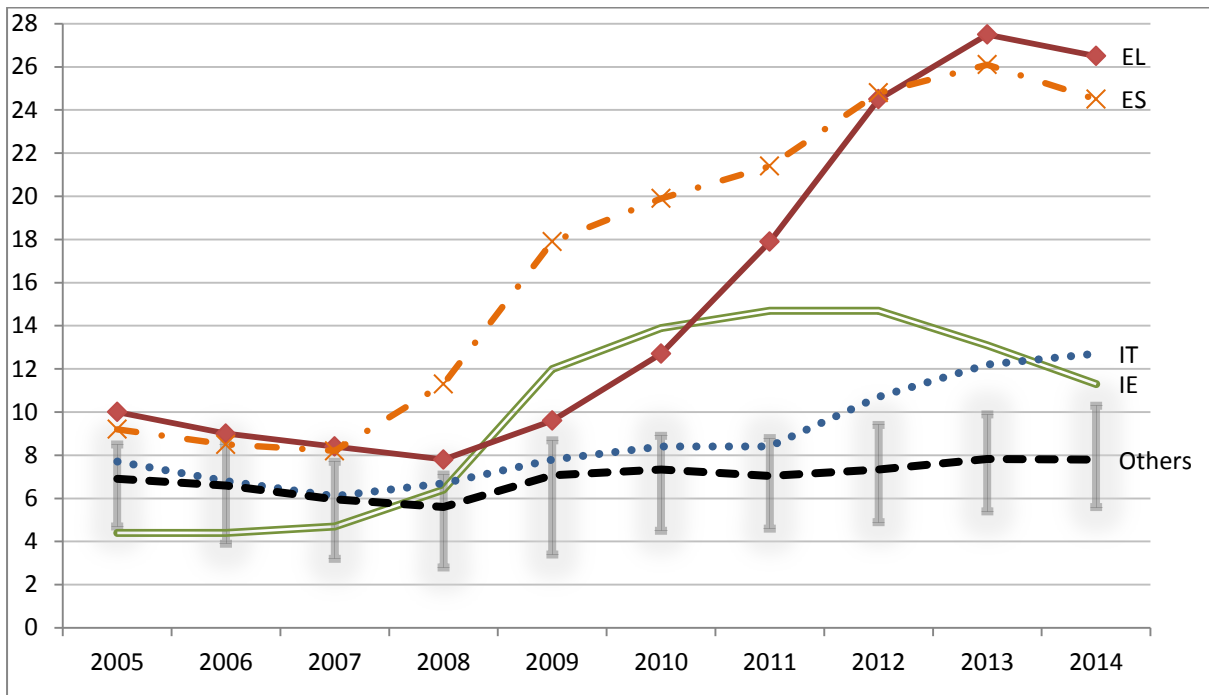
Drawing on this earlier work we specify the research questions addressed in this report and, finally, provide an outline of the contents of Chapters 2 to 5.

## 1.2 The economic context

The period from 2005 to 2014 is one of dramatic economic change, encompassing the last years of economic growth, the Great Recession and early recovery. Figure 1.1 shows the unemployment rate from 2005 to 2014 across the eleven countries we examine in this study. Greece, Spain, Italy and Ireland are shown separately in the chart because of the distinctive impact of the recession in these countries. The chart shows the average rate across the seven other countries (France, Austria, Belgium, Netherlands, Sweden, Finland and the UK) and the error bars show the maximum and minimum rates across these countries by year.

The chart shows that the sharpest increase in unemployment was between 2008 and 2009 for most countries, but with substantial further increases in Greece, Spain, Italy and Ireland before the turning point in 2012 and 2013. There is no sign of a fall in unemployment in Italy by 2014, however.

**Figure 1.1 Unemployment rates, 2005 to 2014**



Source: Eurostat LFS statistics [http://ec.europa.eu/eurostat/web/lfs/data/database\(Table \[lfsa\\_urgan\]\)](http://ec.europa.eu/eurostat/web/lfs/data/database(Table [lfsa_urgan])), for persons aged 15-74; downloaded October 6 2017). The error bars show the high and low rates among the other countries (Sweden, Finland, the Netherlands, France, Belgium, Austria and the UK).

Ireland had a very low unemployment rate in 2005 at just over 4 per cent. It rose very sharply in the recession, reaching almost 15 per cent in 2012 before dropping back to just over 11 per cent by 2014. Spain and Greece began with a higher than average unemployment rate (over 8 per cent for Spain and Greece in 2005). In both countries it rose very sharply during the recession, reaching over 26 per cent by 2013. Italy's unemployment rate was lower than this initially, at about the average across the remaining seven countries but it rose to a higher level during the recession remaining high at over 12 per cent in 2014. In the remaining seven countries, the rate averaged about 7 per cent in 2005, falling to under 6 per cent by 2008 before rising in the recession to reach about 8 per cent in 2014.

The three periods that we focus on in this report are 2005-2006, a period where unemployment rates were generally stable or falling; 2008-09, the period with the sharpest rise in unemployment in most of the countries; and 2013-14, the early recovery period in the countries which had the biggest rise in unemployment with the recession (Spain, Greece and Ireland).

### **1.3 Previous research**

#### **1.3.1 Social risk groups and the recession**

This report returns to a theme of earlier analyses (e.g. Whelan and Maître, 2008; Russell, Maître and Nolan, 2010) in investigating trends in the poverty and social exclusion experience of different social risk groups: children, working-age adults, older people and people with a disability. Earlier work focusing on income poverty in the 2004 to 2007 period had shown that the decline in poverty was most pronounced for older people (Russell, Maître and Nolan, 2010). Poverty among children became increasingly concentrated in lone parent families in the period. Among working age adults, unemployment and household joblessness were strong predictors of poverty. In the older age group, living alone was associated with a substantially higher risk of income poverty.

Analyses after the start of the recession have highlighted the different trajectories faced by social risk groups. The increasing significance of household joblessness as a risk factor for poverty has affected working-age families and their children (Watson, Maître and Whelan, 2012). The protective role of social transfers has been important

for jobless households in preventing income poverty but levels of basic deprivation<sup>2</sup> have increased substantially (Watson and Maître, 2013; Savage et al., 2015); and we have observed higher income poverty and deprivation rates among families with children (Watson, Maître and Whelan, 2012).<sup>3</sup> During the recession, policies to protect the state pension rates ensured that older adults were protected from the worst effects of the recession (Watson and Maître, 2013), but more recently, cuts to secondary benefits, increases in indirect taxes and charges (such as the water charges and property tax), and cuts in public sector pensions have increased deprivation levels for older adults (Watson et al., 2016). Research has also pointed to the fact that in some respects the recession had a greater impact on groups that had been doing well beforehand (Watson, Kingston and McGinnity, 2013), but that the conclusions can differ depending on whether the focus is on relative increases in disadvantage or on absolute increases (Watson et al., 2016b).

The income poverty rate for children has been higher than for adults in Ireland, like most European countries (with the exception of the Scandinavian countries), and research has also documented the adverse impact of the recession on the socio-emotional wellbeing of children in families that experience economic vulnerability during the recession (Watson, Maître and Whelan, 2012; Watson et al., 2014; Watson et al., 2017). Although much analysis of the circumstances of children treats them as a single 'life-cycle' group, in this report we distinguish children of lone parents and those whose parents have a disability from 'other children'.

The circumstances of children are closely linked to those of their parents in the working-age category. As noted above, an issue of particular importance to the working-age population is access to employment and we have seen how the unemployment rate soared during the recession. In addition, the phenomenon of household joblessness increased with the recession, particularly for households with children. In 2007 12 per cent of Irish children were in jobless households, rising to 20

---

<sup>2</sup> Basic deprivation is one of the Irish national poverty indicators (the other is income poverty) and involves being unable to afford two or more of eleven basic goods and services.

<sup>3</sup> The percentage of the population benefitting from weekly social welfare payments rose from 35 per cent in the boom to close to 50 per cent at the peak of the recession (see Figure 1.1 in Watson, Maître and Whelan, 2012).

per cent in 2012 before dropping back to 16 per cent by 2014 (Watson, Maître and Russell, 2015).

Among working-age adults, there are certain groups that are particularly vulnerable to poverty. In this regard, lone parents and working-age people with a disability are of particular concern and these are identified separately in this report. Lone parents have consistently emerged as a group at higher risk of social exclusion, financial exclusion and economic vulnerability in Ireland (Russell, Maître and Donnelly, 2011; Watson, Maître and Whelan, 2012; Whelan, Russell and Maître, 2016). Research drawing on the Quarterly National Household Survey (QNHS) Equality Modules suggested that while working-age people with a disability face lower employment rates, their circumstances were not as strongly affected by the recession as were the circumstances of their non-disabled counterparts (Watson, Kingston and McGinnity, 2013). This is not a positive news story, however, but a case of those with less to lose being somewhat less affected by the recession. Other research suggests that the employment rate of people with a disability in Ireland is below what is typical in other European countries (Watson, Kingston and McGinnity, 2013, Figure 1.1). In addition, people with a disability face higher costs associated with the disability itself so that for a given level of income their standard of living would be expected to be lower compared to individuals without a disability. Work by Cullinan, Gannon and Lyons (2010) suggested that, at the income poverty threshold, costs for people with a disability are roughly one third higher than those for people without a disability.

Apart from lone parents and working-age people with a disability, we also treat young adults as a specific social risk group in this report. Young adults face particular challenges in making the transition to employment (McCoy et al, 2014). This was exacerbated during the recession (Kelly et al, 2014), when youth transitions out of unemployment fell sharply and education became even more important to getting a job.

Relative to their younger counterparts, older people have fared better in terms of at-poverty and social exclusion in recent years. Previous research has documented the fact that policies to protect the state pension rates ensured that older people were protected from the worst effects of the recession (Watson and Maître, 2013). The

lower income poverty and deprivation rates of pensioners were found from the early 2000s onwards (Watson and Maître, 2012).

### 1.3.2 Poverty dynamics

Research based on panel data has established that poverty is an experience of varying duration (Alcock 1997; Bane and Ellwood 1986; Barnes et al. 2002; Di Prete and McManus 2000; Jenkins 1999; Fouarge & Layte, 2005). The distinction between persistent and transient poverty is important because the two have very different implications for policy (Walker, 1994). It matters whether many people experience poverty but quickly escape from it or poverty is a persistent or long-term phenomenon. An understanding of persistence is also important since an increase in cross-sectional poverty could result from a rise in the number of people becoming poor or an increase in the persistence of poverty (Burkhauser, 2001).

With the increasing availability of panel data in recent decades, the dynamic aspects of poverty have received increasing attention. Persistent poverty has more serious consequences for a range of outcomes such as current and future labour market outcome, family behaviours/decisions, health, well-being and child development (Duncan and Brooks-Gunn, 1999; Power et al, 1999). However, even the longitudinal data needs to be analysed with care and interpreted with caution because of what economists call the risk of endogeneity (Cappellari and Jenkins, 2004). This refers to the fact that the same explanatory factors could account for both the persistence of poverty and the negative outcomes – factors such as low parental education, for instance. Caution is particularly needed because the factors that make some individuals particularly poverty-prone are often not observed, such as unmeasured disabilities, low levels of motivation, discouragement or discrimination (Biewen, 2009). Another reason for caution is the presence of non-random attrition in the panel data (Ayllón, 2008; Cappellari and Jenkins, 2004).

Poverty persistence has been measured in a number of different ways (e.g. Oxley, Dand and Antolin, 2000; Whelan, Layte & Maitre, 2003; Fritzell et al, 2012; Vandecasteele, 2010a and b; Guio, Marlier and Pomati, 2017a), across different numbers of years depending, at least in part, on data availability. The EU indicator of ‘persistent at-risk-of-poverty’, drawing on the four-wave panel in EU-SILC, is based

on being income poor in the current wave and income poor in at least two of the three preceding years (European Commission, 2015). This definition has been used in a number of European studies (Jenkins & Van Kerm, 2011; 2017). In this paper, we follow Polin and Raitano (2014), and Ayllon and Gabos (2017) who defined persistence as being income poor or deprived in the current year and in the previous year.

A number of studies of persistent poverty are particularly relevant here because of their emphasis on variations in persistence across countries or groups. Fritzell and Ritakallio (2010), in a study of several European countries from the 1980s to 2000 found that income poverty persistence varies across risk groups. Older adults experienced the highest rate, especially in Italy and the UK, while young adults experienced the lowest.

Some studies looked at the relationship between cross-sectional poverty and persistent poverty (with varying definitions of persistent poverty) across a wide range of European countries. Overall results showed that there was a near-linear relationship between the two measures where a high persistent poverty rate was associated with a high cross-sectional poverty rate and vice versa (Jenkins and Van Kerm, 2012; Dennis and Guio, 2003; Whelan, Layte, and Maître, 2002).

Using the EU-SILC data and defining poverty persistence as being income poor in the current wave and in at least two of the three preceding years (European Commission, 2015), Jenkins and Van Kerm (2011) studied poverty persistence for 21 of the EU-27 countries. They found persistence rates varied across countries, being low in the Nordic countries but particularly high in Ireland.

Several studies also looked at material deprivation (Guio, Marlier and Pomati, 2017a; Ayllon and Gabbos, 2017). For instance, Guio, Marlier and Pomati (2017) conduct a comparative analysis of EU-SILC data and analyse the evolution of material deprivation over time across the EU, drawing on both cross-sectional and longitudinal data. They find that in the countries most affected by the recession, both an increase in entry rates into material deprivation and a decrease in exit rates contributed to an increase in the level of material deprivation. In an extension of this work, Guio, Marlier and Pomati (2017b) use the longitudinal EU-SILC data to

examine which material deprivation items people do without as their income is reduced. There is a high level of similarity across countries in the items that are curtailed. Across the six items available in the longitudinal dataset for 2011, the first item to be curtailed was an annual holiday, followed by the capacity to meet unexpected expenses, a protein meal<sup>4</sup>, keeping the home adequately warm, avoiding arrears and having a car or van. Based on the 13 items available in the cross-sectional data for 2009, the following was the order of curtailment: holiday, unexpected expenses, replacing worn-out furniture, pocket money, leisure activity, drink/meal out with friends, new clothes, protein meal, keeping home warm, avoiding arrears, a car/van, computer/internet, shoes (Guio and Pomati, 2017, p.392).

Research on eight countries using the EU-SILC has found a high level of persistence of income poverty and a somewhat lower level of persistence of severe material deprivation between waves (Ayllón and Gábos, 2017) with a very strong persistence of low work intensity. The analysis indicated that all three indicators showed evidence of genuine state dependence between waves, that is, being in the state in one wave was causally related to being in the state in a subsequent wave even when characteristics of the individuals were taken into account (Heckman, 1981; Immervoll, Jenkins and Konigs, 2015). *Genuine* state dependence, for example in the case of poverty, may be due to several mechanisms. Among these, we can cite the so-called poverty trap or the fact that low-income individuals experience adverse incentives which make them less likely to accept a job if unemployed or, if employed, less likely to keep the job if it is a low-paid one (Steward, 2007; cf. Biewen, 2009). This might be a real possibility in countries with a minimum income guarantee. The persistence is not absolute, however – there is considerable movement into and out of the states in question.

Overall, studies on poverty dynamics show considerable mobility in and out of poverty. For example, it has been estimated that the entry rate to income poverty is around 5 per cent across a set of western countries (Cellini, McKernan and Ratcliffe, 2008; Valletta, 2006), while the exit rate ranges between 25 and 45 per cent (Duncan et al.; 1993; Cellini, McKernan and Ratcliffe, 2008). Exit probabilities,

---

<sup>4</sup> This is a meal with meat/chicken/fish or vegetarian equivalent every second day.

however, vary according to the length of income poverty spells. Bane and Ellwood (1986) estimated that the probability of exiting from a one-year spell is 0.45. It declines to 0.29 for a two-year spell, and falls again to 0.21 for spells that last 4 years. Slightly different results but similar exit patterns have been shown by Stevens (1994) who report exit probabilities to be of 0.53, 0.36, and 0.23 respectively. Other results highlighted also that those exiting poverty faced a greater likelihood of poverty entry (re-entry) than those that did not have any experience of poverty (Gardiner and Hills, 1999) and that many of those escaping poverty will experience poverty again at a later stage (Stevens, 1994; Mood and Jonsson, 2012). These results imply that the longer the time spent in income poverty, the higher the risk of being entrapped in income poverty.

However, previous research also indicated that the majority of poverty spells are of a short duration and only a minority of people are poor for long periods (Devicienti, 2001; Fouarge & Layte, 2005). This implies that cross-sectional studies tend to underestimate the number of households that experience poverty over any extended period of time.

### 1.3.3 Country differences and Welfare Regimes

An analysis conducted by the European Commission distinguished between groups of countries on the basis of movements into and out of poverty (European Commission, 2013a). The analysis drew on EU SILC data for 2006-2009. One group of countries (the UK and Spain and, to a lesser extent, Belgium, France, Ireland, Austria and Slovakia) have high rates of entry into and exit from poverty, but also have a core group remaining poor. The second group (including Bulgaria, Estonia, Greece, Italy, Latvia, Lithuania, Hungary, Malta, Portugal and Romania) was characterised by a high risk of entry into poverty and a low probability of exit, so that increasing numbers of people become trapped in poverty over the period. The third group of countries (including the Netherlands, Luxembourg and the Nordic countries) have a low rate of entry into poverty and a low rate of exit from poverty, but a relatively high share of people at risk of persistent poverty.



Fritzell and Ritakallio (2010) drew on the 2008 wave of EU-SILC to examine poverty persistence across European countries representing different welfare regimes, and across different “old” and “new” risk groups. They found that the rate of persistent poverty – defined as being poor in 2008 and in at least one of the two preceding years – ranged from 2.8 per cent in the Netherlands to 14.5 per cent in Italy. The Nordic countries also had low rates of persistent poverty. Moreover, poverty persistence also varied across risk group. Older adults experienced the highest rate of persistent poverty, especially in Italy and the UK, while young adults had the lowest rate.

Using the same data and the same years but a different definition of persistence – being poor in 2008 and in at least two of the three preceding years – Jenkins and Van Kerm (2011) studied poverty persistence for 21 of the EU-27 countries. They found persistent poverty rates ranged from 3.0 per cent in Sweden to 13.3 per cent in Estonia. Overall, they found that Nordic countries tended to have relatively low rates while Mediterranean countries had relatively high rates of persistent poverty. Moreover, while the rate in the UK was at the median (8.4), Ireland occupied the highest position in the ranking (12.2). The authors also focused in greater detail on six countries and decomposed persistent poverty by population subgroups defined by individuals’ sex and age. They concluded that country differences in the age and gender composition of the population was a major driver of the differences in the rates of poverty persistence between countries.

Research on the impact of the recession on levels of inequality has shown sizeable differences between countries that depend on differences in how the country was affected by the recession but also in the effectiveness of the welfare system in buffering the impact on households (Jenkins et al, 2013; Nolan et al., 2014). More generally, Atkinson and Morelli’s (2011) comprehensive analysis of the historical relationship between economic crisis and income inequality concludes that there is no consistent pattern: there are large differences between economic crises both in their root causes and in their impact on levels of inequality.

In accounting for differences between countries, as Esping-Andersen and Myles (2009) note, the welfare state influences life-course risks, intergenerational risks and class risks. However, it is not simply the wealth of a country or even the level of

welfare spending that is most important in accounting for differences in poverty and inequality. Some studies (e.g. Smeeding, 1997) show an association between levels of welfare spending and redistribution, but Palme (2006) and Esping-Andersen and Myles (2009) conclude that there is no straightforward link between GDP or higher levels of social spending and reduced inequality. Instead, they argue, the most important differences between countries are linked to the differing institutional designs of welfare systems. The impact of different approaches to welfare can often be quite complex. For instance, targeted welfare systems might seem to be most strongly oriented towards redistribution, but Korpi and Palme's (1998) 'paradox of redistribution' points to the fact that universal benefits are both more generous and reach the needy with greater certainty.

Further, the provision of services also matters with substantial variations across countries in the redistributive role of services (Esping-Andersen and Myles, 2009). Although services do not directly affect household income, they nonetheless strongly affect the income available for other things. Expenditures for education and health, for example, have been shown to increase disposable household income by an average of 12 per cent and 14 per cent, respectively, among the OECD-27 countries, and to be allocated mainly in favour of the least well-off. Although with a much smaller overall impact, social housing has been considered as the service that benefits the beneficiaries the most, this is especially true in the United Kingdom and Ireland (Verbist, Forster and Vaalavuo, 2012). Moreover, services such as education and health are important also because they impact on individuals' earning potential. Education provides skills and credentials that affect individual earnings, while the health system helps and enables individuals to be active in the labour market. To the extent to which services are provided in a way that fosters equal opportunities, service provision translates into a more equal distribution of disposable income. This means that an exclusive focus on incomes inevitably provides an incomplete and potentially distorted picture.

However, the extent to which services support the least well-off and redistribute resources largely varies across countries. Indeed, there is considerable variation in both the total spending on services and the way in which expenditures are allocated across different type of services. In this respect, Ireland is an interesting example. Among the countries we consider here, Ireland is the country where the provision of

education has the largest impact (estimated to increase household income available for other things by 14 per cent). It is also the country where child care services play the smallest role (0.4 per cent compared to the OECD-27 average of 1.8 per cent and 5 per cent in Sweden, the country where provided child care services release the most household income) (cf. Verbist, Forster and Vaalavuo, 2012).

Other authors distinguish groups of countries based on characteristics of employment policy, including the regulation of employment. Gallie and Paugam's (2000) 'employment regime' typology emphasises both the coverage and generosity of unemployment benefits and the scale of active employment policies. Bukodi and Róbert (2007) add a related concern with the strictness of employment protection legislation or the set of rules governing hiring and firing.

Combining the employment-related criteria with the classic Esping-Andersen schema, following Whelan and Maître (2010; see also Eurofound, 2007; Watson, Maître and Kingston, 2014), we focus on the European countries most similar to Ireland in terms of level of economic development<sup>5</sup> and distinguish the following regimes in this analysis:

- The Social-democratic regime is characterised by its emphasis on universalism and redistribution, in the form of generous social welfare and unemployment benefits. Employment flexibility is combined with generous social welfare and unemployment benefits to guarantee adequate economic resources independently of market or family. In this report, we include Sweden, Finland and the Netherlands from this regime.
- The Corporatist regime places less emphasis on redistribution and entitlements are linked to lifelong employment. There is a greater emphasis on income protection and transfers and less emphasis on the provision of services. We include Austria, Belgium and France from this regime type.
- The Liberal regime emphasises provision through the market with the state acting only in order to support the market. Social benefits are typically targeted, using means tests, though there has been a recent shift towards

---

<sup>5</sup> We do not include the Central and Eastern European countries for this reason.

negative income tax policies. These countries are characterised by flexible labour markets, low levels of service provision and lower provision of services to promote and sustain employment. While targeting could have a redistributive impact, the low levels of service provision, together with the 'paradox of redistribution' (Esping-Andersen and Myles, 2009) combine to create a relatively low degree of redistribution. We include Ireland and the UK as representatives of this regime.

- The Southern regime is characterised by an emphasis on family as the provider of welfare with labour market policies relatively undeveloped and selective. The benefit system tends to be uneven and minimalist with no guaranteed minimum income. From this regime, we include Italy, Spain and Greece.

Transfers through the family across the life cycle take place in all regimes but the form of the transfers can vary. In the Social democratic countries, financial transfers from older parents to adult children are more common than elsewhere. Although the percentage of parents making financial transfers to adult children in Spain and Italy is lower than elsewhere, the amounts transferred tend to be higher. The main form of support from older parents towards adult children in the Southern regime is via prolonged co-residence (Attias-Donfut, Ogg and Wolff, 2005; Kohli and Albertini, 2008; Albertini, Kohli and Vogel 2007).

#### **1.4 Research questions**

Building on earlier research, and drawing on the literature, this study addresses three research questions:

1. Are there higher risks of poverty (and greater persistence of poverty) among the same social risk groups in all countries? Poverty is measured using the EU indicators of income poverty and material deprivation.
2. Is the 'social risk gap' – the difference in poverty and deprivation across groups – smaller in Social democratic countries? We might expect this to be the case because of the greater emphasis on universalism and redistribution in the Social democratic countries.
3. Did the recession lead to polarisation between high-risk and low-risk groups?

Because of the barriers to labour market access they face, as described above, we would expect that lone parent families and families of adults with a disability would have higher poverty and deprivation rates than the reference group of other adults aged 30-65 in all countries. The pattern for other children and for older adults may vary depending on the provision of supports to families and older people, either in the form of social transfers or in the form of services.

However, we expect that the size of the gap between the reference group and these vulnerable families affected by lone parenthood or disability would be smaller in Social democratic countries. This is because these countries provide a higher level of support services (Kautto, 2002) and social transfers that protect vulnerable groups. In fact, the provision of services may lead to a more noticeable benefit in terms of actual living standards (as captured by the indicator of material deprivation) than in terms of income poverty.

Our expectations regarding the recession are less clear. On the one hand, we might expect the lone parent families and families of working age adults with a disability to be more severely affected by the loss of employment since the jobs they hold are likely to be less secure. They may also face greater competition in moving back into employment from the large numbers of other working-age adults who lost their jobs during the recession. On the other hand, as noted above in the literature review, rising unemployment during the recession may have had relatively less impact on those who were already non-employed (either outside the labour market or unemployed) – those who are retired, non-working lone parents and those with difficulty finding suitable work because of a disability. While the vulnerable groups may be less affected by employment loss, their circumstances depend more heavily on whether social transfers and public services can be maintained.

### **1.5 Report outline**

In the next chapter, we describe the data and methodology used in the analysis, including the unit of analysis, the population on which we focus, the measurement of social risk groups and their sizes in the different countries, and the definition and measurement of income poverty (at-risk-of-poverty) and material deprivation.

In Chapter 3, we provide an overview of the patterns of income poverty and material deprivation by social risk group and examine whether poverty and deprivation persistence is higher for the social risk groups with overall higher levels of poverty and deprivation.

In Chapter 4, we focus more specifically on country differences. We begin by asking whether the overall differences between social risk groups are found in all countries. We then examine the social risk gap in poverty and deprivation. This is the gap in poverty and deprivation rate between the vulnerable groups such as lone parents and working-age adults with a disability, on the one hand, and the reference category of other working age adults, on the other. We note that the conclusions we draw might differ depending on whether we focus on the relative or absolute gap.

In Chapter 5, we examine change over time in poverty and deprivation (between 2006 and 2014) and ask whether there is evidence of a widening social risk gap during the recession in some or all of the eleven countries.

In the final chapter, we draw together the results to address the research questions, discuss the wider implications of the findings for our understanding of poverty and deprivation and point to the implications for social and economic policy.

## Chapter 2: Data and methodology

### 2.1 Introduction

This chapter discusses the data and methods of analysis used in the study. The analysis draws on the EU Statistics on Income and Living Conditions (EU-SILC) longitudinal data file for eleven countries in three periods from 2005 to 2014. We then describe the measurement of income poverty and material deprivation, and the identification of the social risk groups. Finally, we provide details on the sizes of the social risk groups in the different countries.

### 2.2 Data

The EU-SILC is a nationally representative survey of private households conducted annually by the National Statistics Institutes of the countries (by the Central Statistics Office (CSO) in Ireland). It was introduced in 2004 and is an EU-wide harmonised survey designed to gather data on household income and living standards. It is the major source of data on social inclusion and inequality in Europe. It is designed as a rotating panel, where each sampled person remains in the survey for four years and with one quarter of the sample replaced each year.

In this study, we draw on the longitudinal EU-SILC data for pairs of years in three periods (2005-06, 2008-09 and 2013-14) to examine transitions between waves. Although EU-SILC follows individuals for up to four waves, the number of cases available for analysis declines very rapidly as the period of observation is extended, as discussed below. We focus on pairs of waves in order to maximise the number of cases available for analysis and to minimise the problems associated with non-random attrition which risks biasing the results (See Jenkins and Van Kerm, 2017).

The data, which include children as well as adults, can be linked at the household level so as to identify total household income. We focus on the period from 2005 to 2014, since 2014 was the most recent year available at the time the analysis commenced. Analysing the data over the period 2005 to 2014 allows us to examine the impact of the boom, recession and early recovery on trends in poverty and deprivation for the different social risk groups and social classes.

The EU-SILC has a number of advantages for an analysis of social exclusion:

1. Large sample size. As we shall see, across the eleven countries and for the three time periods, the survey has data on a large number of persons whose circumstances were captured in two waves. This means that we can meaningfully examine differences between social risk groups, although some caution is warranted in the case of numerically small groups.
2. EU SILC is widely accepted as the definitive dataset for analyses related to household income and standard of living for EU comparisons.
3. The longitudinal nature of the data is essential for the examination of poverty and deprivation dynamics.
4. The harmonised data across EU countries facilitates an examination of the impact of welfare regime on deprivation and poverty transitions.

All results are based on weighted data. Longitudinal weights for each country were constructed by the National Statistical Institutes to ensure that the longitudinal sample is representative of the national population. The analyses here adjust the standard errors for weighting of the data and clustering of the observations at household level.

We examine three time periods: pre-recession (2005-2006), early recession (2008-2009) and early recovery (2013-2014). The 2013-14 wave was the latest available for the selected countries at the time of writing.

The countries were selected to provide a manageable number of cases reflecting the differences across welfare regimes (Esping Andersen, 1990; Eurofound, 2007; Watson, Maître and Kingston, 2014). We focus on eleven countries from four different welfare regimes for which we have two waves of data for the three periods:

- The Social-democratic regime is characterised by its emphasis on universalism and redistribution, in the form of generous social welfare and unemployment benefits (Sweden, Finland and the Netherlands),
- The Corporatist regime places less emphasis on redistribution and entitlements are linked to lifelong employment (Austria, Belgium, France)
- The Liberal regime emphasises provision through the market with the state acting only in order to support the market (Ireland and the UK)



- The Southern regime is characterised by an emphasis on family as the provider of welfare with labour market policies relatively undeveloped and selective (Italy, Spain and Greece).

Cases were included in the analysis where they were present in both waves and the longitudinal weight for the two waves was available. This means that cases were not available for analysis in the event of attrition. Attrition occurs when cases present in one wave are not followed in the next wave. The 'blueprint' design of EU-SILC is a four-year rotating panel design, with one quarter of the sample replaced by a new random sample in each year.<sup>6</sup> With this design, even in the absence of any 'field' attrition that occurs when people refuse or cannot be contacted in later waves, the sample in the second wave would be three quarters the size of the wave 1 sample, falling to half the size by the third wave and only one quarter of the size by the fourth wave. In addition, in countries which have population registers from which the sample could be selected, a 'selected respondent' design is used rather than all household members being followed from wave to wave.<sup>7</sup> In the 'selected respondent' design, only the selected individual is followed over time and any co-residents who remain living with that person (Jenkins and Van Kerm, 2017). This tends to lead to higher apparent attrition in countries such as Finland, the Netherlands and Sweden.

Jenkins and Van Kerm (2017) have carefully documented the risks of working with the full 4-year panel. In this respect, they caution about the role that attrition (especially differential field attrition) has on bias and precision in the estimates.<sup>8</sup> They also highlight that while the use of weights is essential, weights are not enough to completely solve the problem of attrition. On the other hand, as shown by Krell, Frick and Grabka (2017), problems of attrition and/or sampling are not so prominent if the focus moves towards shorter periods. Using EU-SILC, these authors have compared the results based on the cross-sectional component with four two-year longitudinal panel for the years 2005 to 2008. Their underlying assumption was that cross-sectional and longitudinal results should roughly overlap if the refreshed sub-

---

<sup>6</sup> In some countries, such as France, individuals are followed for a longer period.

<sup>7</sup> The 'register countries' are The Netherlands, Sweden, Iceland, Finland, Denmark, Norway and Slovenia. More details about the methodology in the collection of information in the register countries can be found in Jäntti, Törmälehto and Marlier (2013).

<sup>8</sup> They use the term 'differential' attrition to highlight the fact that attrition differs/varies according to individual characteristics.

sample in the longitudinal sample is properly designed, and given that the populations underlying the cross-sectional and longitudinal components differ only in terms of demographic trends, such as deaths, births and migrations. Comparing poverty rates based on the two components, they found substantial discrepancies for register-based countries, and especially for Sweden. For the other countries it seems that attrition does not harm the results, at least when the investigated outcome is poverty.

For all of these reasons, and because of the high rate of ‘field’ attrition in countries such as the UK and Ireland (Grotti et al, 2017; Jenkins and Van Kerm, 2017), we follow Krell, Frick and Grabka (2017) and focus on transitions between pairs of waves rather than following people across longer periods of time. Maintaining as large as possible a sample size is important given the small size of some of the vulnerable social risk groups, as we shall see later in this chapter.

Table 2.1 shows the number of cases available in each country for each pair of years. The numbers range from 5,700 in Ireland to nearly 37,000 in Italy in 2005-2006. Ireland has by far the smallest sample size, with the next smallest being just over 7,000 in Sweden in 2013-14 and just over 8,000 in Belgium in 2005-06.

**Table 2.1 Number of cases available (in ‘000s) by country and pair of years.**

	2005-06	2008-09	2013-14
<b>FI Finland</b>	12.7	11.0	18.6
<b>SE Sweden</b>	10.5	10.9	7.1
<b>NL Netherlands</b>	17.2	15.9	16.4
<b>AT Austria</b>	9.2	8.7	8.4
<b>BE Belgium</b>	8.1	9.1	9.4
<b>FR France</b>	15.2	19.6	19.7
<b>IE Ireland</b>	5.7	6.2	5.7
<b>UK United Kingdom</b>	15.0	11.8	15.0
<b>IT Italy</b>	36.9	34.7	29.7
<b>ES Spain</b>	22.7	24.6	20.6
<b>EL Greece</b>	10.0	11.8	12.9

Source: EU-SILC Longitudinal dataset, 2017 release, analysis by authors.

While these sample sizes are satisfactory in terms of providing overall estimates of poverty and deprivation, it is clear that there is a very large reduction in the number of cases available – and a consequent increase in the margins of error around estimates – once we begin to look at subgroups. Indeed, the number of distinct households is smaller than this by a factor of about 2.4 (the average household size across the eleven countries).<sup>9</sup> For some combinations of country and social risk group there are fewer than 100 cases in certain periods (see Appendix Table A2.1). For this reason, when conducting the more detailed analysis by country and period we use a more aggregated social risk group breakdown.

### 2.3 Measuring poverty

We use two indicators of poverty in this analysis: material deprivation and income poverty. We use the official measure of material deprivation as endorsed in 2009 by the EU (European Commission, 2009). Material deprivation is measured at the household level with the score attributed to all household members. It involves living in a household that is unable to afford 3 or more of 9 basic goods and services, such as meeting unexpected expenses, a one-week annual holiday away from home, a protein meal every second day<sup>10</sup>, adequate heating, telephone, durable goods like a washing machine, colour television or car and being unable to avoid arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments). Although a newer indicator of deprivation is being introduced, which includes a wider range of items (see Guio and Marlier, 2017)<sup>11</sup>, we focus on the older material deprivation indicator here since it is available for the three periods we examine. As shown in Figure 2.1 there is quite a wide variation between countries and over time in the rate of material deprivation. The figure shows the rate separately for

---

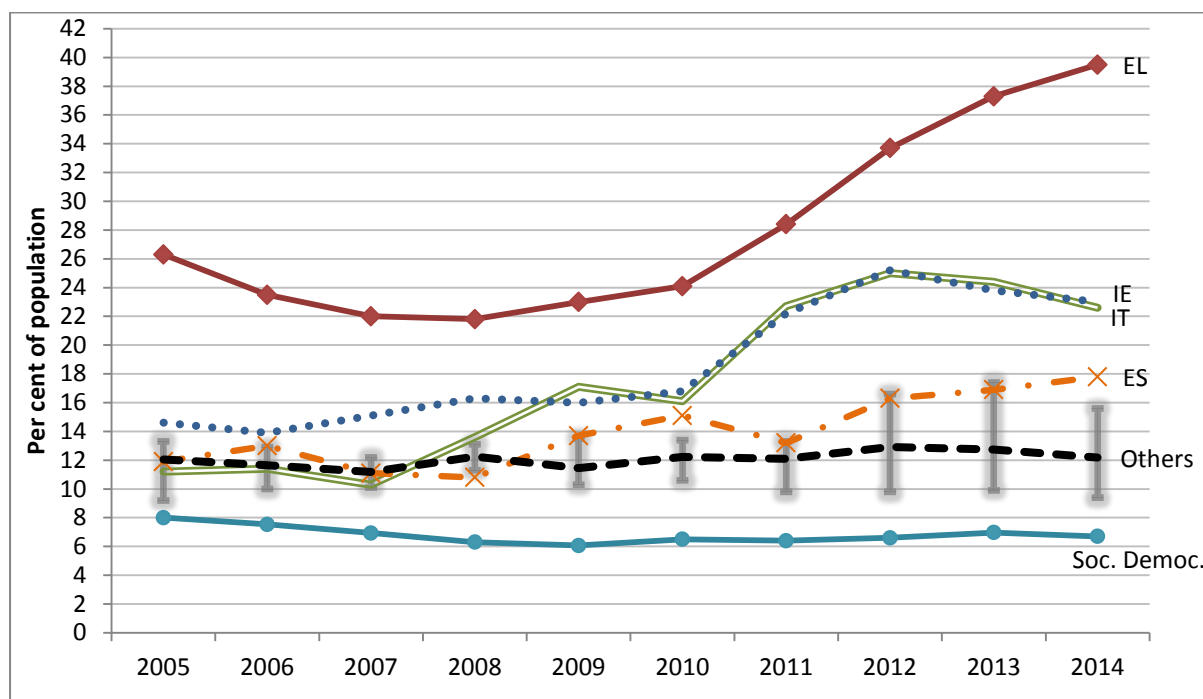
<sup>9</sup> The average number of persons per household in SILC ranges from 2.1 in Finland and Sweden to 2.8 in Ireland and 2.7 in Greece (see table `ilc_lvph01` at <http://appsso.eurostat.ec.europa.eu>.)

<sup>10</sup> That is, a meal with meat, chicken, fish or a vegetarian equivalent.

<sup>11</sup> The new indicator includes 13 items. 6 from the original index (an inability to meet unexpected expenses, a one-week annual holiday away from home, a protein meal every second day, adequate heating of the dwelling, access to a car and being unable to avoid arrears) and 7 new items (inability to afford new clothes, two pairs of shoes, some money to spend on oneself, a regular leisure activity, getting together with family/friends at least once a month, replacing worn-out furniture and having an internet connection). Of these, six are also included in the Irish 11-item indicator of material deprivation (protein meal, heating, new clothes, shoes, socialising with family/friends, replacing worn-out furniture). The five items included in the Irish index but not the EU one are having a roast joint or its equivalent once a week, doing without heating in the past year, an overcoat, buying presents for family/friends, having time out for entertainment in the last fortnight.

Greece, Ireland, Italy and Spain and it groups the Social democratic countries together because they are quite similar and then groups the UK and the Corporatist countries together because they vary within a narrow range (as shown by the error bars). The rate was highest by a considerable amount in Greece where even the low value in 2008 (22 per cent) was higher than the highest reached in all other countries apart from Ireland and Italy mid-recession. The rate in 2014 in Greece was 40 per cent.

**Figure 2.1: Material Deprivation trends from 2005 to 2014**



Source: Eurostat EU-SILC statistics <http://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database> (Table [ilc\_SIP03]; downloaded October 10 2017). The data here are cross-sectional. The error bars show the high and low rates among the other countries (France, Belgium, Austria and the UK).

The lowest values were found in the three social-democratic countries, which averaged between 6 and 8 per cent. The impact of the recession is very clear for Greece and Ireland and also in Italy. Material deprivation was less responsive to the recession in other countries. Recall from Chapter 1 that the unemployment rate in Spain rose just as sharply as the rate in Greece. The fact that the material deprivation rate did not increase as much as might be expected may be due to differences in levels of social protection or differences in the extent to which the unemployed can draw on familial supports. Indeed, the lower rate of household joblessness in Spain than in Greece, despite similar unemployment rates, suggests

that the unemployed in Spain may be somewhat protected by virtue of living with another employed adult (see Appendix Figure A2.2).

There has been some criticism of the material deprivation indicator because some of the items (such as washing machine and colour television) have a rate close to zero in the more affluent countries. This means that, in effect, the assessment of deprivation in these countries is strongly affected by items such as an annual holiday or financial exclusion items such as an inability to afford unexpected expenses or to avoid arrears (Whelan and Maître, 2010; Maître, Nolan and Whelan, 2013).

Although examining the nine material deprivation indicators one at a time might provide some additional insights, we are reluctant to do this because the material deprivation index has been constructed and tested for validity and reliability as a composite measure. An examination of the number of items lacked has shown that during the recession the share of people lacking at least four items increased more than the share of people lacking exactly three items. This indicates that the recession not only has pushed more households into material deprivation, but has also intensified its impact (Guio, Marlier and Pomati, 2017a and b).

Poverty research has shown that, contrary to expectations, there is only a modest correlation between income poverty and deprivation (Nolan and Whelan, 2010; European Commission, 2010; Layte et al, 2001). Matković et al. (2007), focusing on income poverty, found that although there is a strong correlation between income poverty and income inequality, the correlation is much more modest with material deprivation. Therefore, we include analysis of income poverty here as well and in the next chapter we touch on the relationship between the two indicators across social risk groups.

The second social inclusion indicator we examine here is income poverty (or at-risk-of-poverty). This is also constructed following the Eurostat specifications (Eurostat, 2014). Income is measured at the household level over a twelve reference period. All sources of income of all household members are included, that is income from work, all social transfers, income from rental, interests, dividends, profit from capital investments, private pension plans, inter-household cash transfers (Eurostat, 2013).

In earlier waves of SILC, income from private pension plans was not included but was incorporated into the definition of income from EU-SILC 2011 onwards.

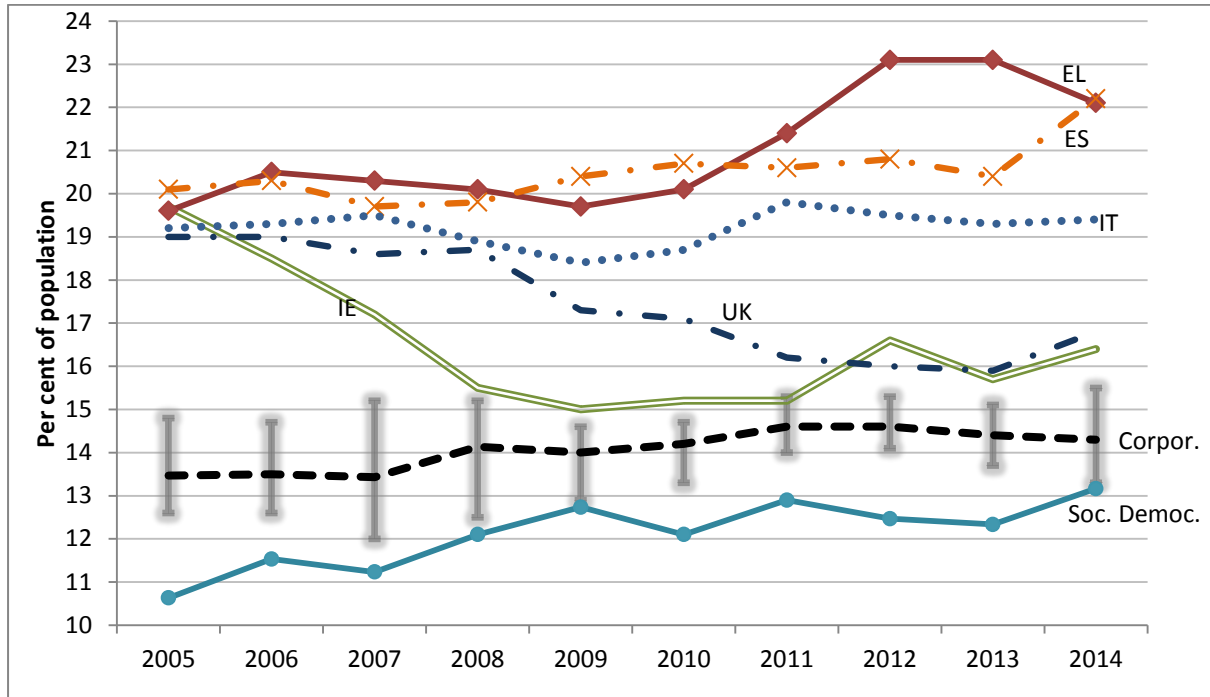
In constructing the indicator of income poverty, we take disposable income – the level of household income after tax and social transfers (such as social protection payments). The measurement of income poverty also takes account of household size and composition by using an equivalisation scale. This involves an adjustment to income so that we can compare incomes of households that differ in size. The EU equivalisation scale is the modified OECD scale which allows a weight of 1 for the first adult in a household, 0.5 for each subsequent adult (over the age of 14) and 0.3 for each child (aged 0 to 13). Equivalised income is a household's disposable income divided by the household equivalisation scale. A household is income poor if its equivalised income is below 60% of the median in the country.<sup>12</sup>

In most countries, the income reference period is the calendar year prior to the survey year. In Ireland and the UK, however, it is the twelve months up to the date of the survey. So, for example, if an interview takes place in June 2008, the reference period in most countries is January to December of 2007 but in the UK and Ireland it is the twelve months from July 2007 to June 2008. This means that the reference period for income poverty is measured with a lag that is smaller in Ireland and the UK. This has particular implications for examining the period 2007-2008. In most countries, incomes will not yet have been affected by the recession but, for those where the interviews take place in late 2008, the effects will begin to be seen for Ireland and the UK.

Figure 2.2 shows the income poverty levels over the period 2005-2014 for the countries used in the analysis. Again, we distinguish Ireland, Italy, Spain and Greece separately as we did in the previous figure. The UK is distinct from the Corporatist countries in terms of income poverty, so we also show it separately. The Social democratic countries are grouped together, as before, because their income poverty rates are quite similar and the Corporatist countries are grouped together with the error bars showing the high and low rates across this group of countries.

---

<sup>12</sup> Since the cross-sectional SILC datasets have much larger samples in some countries, we drew on the cross-sectional data files to derive income poverty lines, following Jenkins and Van Kerm (2012).

**Figure 2.2: Income Poverty trends from 2005 to 2014**

Source: Eurostat EU-SILC statistics <http://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database> (Table [ilc\_li02]; downloaded October 10 2017). The data here are cross-sectional. The error bars show the high and low rates among the Corporatist countries (France, Belgium, Austria).

First, the countries are much closer together on this indicator than on material deprivation. The range on the vertical axis has been reduced so that the differences can be seen more clearly. The lowest rate in Figure 2.2 is just under 11 per cent for the Social democratic countries in 2005 and the highest rate is 23 per cent for Greece in 2012-2013. This compares to a low of 6 per cent and a high of 40 per cent for material deprivation.

The second thing to notice in the chart is that, apart from Greece, the poverty rate does not show a clear upward movement with the recession. Unlike material deprivation, then, the income poverty rate does not appear to capture the deteriorating circumstances of families and individuals with the recession. In Greece, the main increase was after 2010. In the Social democratic countries, the rate had been rising steadily from 2005. In Ireland and the UK, the poverty rate had been falling pre-recession, and then stabilised or rose only slightly. The rate in Spain had been fairly stable with a rise between 2013 and 2014. In the Corporatist countries

(France, Belgium and Austria), the change over time was within a very narrow range (between about 13.5 and 14.6 per cent).

The EU 2020 poverty target considers three indicators: income poverty (or at-risk-of-poverty), severe material deprivation (enforced lack of four of more of the 9 items) and very low work intensity, which involves a working age household having no employment or very low employment levels in the year preceding the survey. We did not include the very low work intensity indicator here for two main reasons. First, we believe that it is better considered as a cause, albeit an important one, of poverty and deprivation rather than an indicator of poverty and deprivation. Very low work intensity need not result in poverty where the person has income from a source other than work, and need not result in deprivation if the person can draw on accumulated income. Further, we are interested in comparing across social risk groups here, where we distinguish older adults (broadly, of retirement age) from working-age adults. Very low work intensity is only defined for households that contain at least one person of working age (narrowly defined as someone aged 18 to 59, other than persons under 25 and still in full-time educating).

## **2.4 Measuring social risk group membership**

### 2.4.1 Social risk group membership

In the analysis, we focus on a number of social risk groups. These are groups that face a distinct set of risks of social exclusion, linked to barriers to labour market participation. For the purpose of the descriptive analysis in this report, we have identified the groups in such a way that they are mutually exclusive, as shown in Table 2.2. In deciding in which group to include individuals who might be classified in two different groups, such as lone parents who have a disability, we were guided by the strength of the association with income poverty and material deprivation. This was stronger for lone parenthood than for disability, for instance (see Appendix Table A2.2). As a result, lone parenthood took precedence over disability in deciding on the classification.

The first group consists of lone parents (of any age, but the vast majority are aged under 66). These are (usually) women or (sometimes) men who do not have a partner (i.e. they are not married or cohabiting) and who have at least one child



under the age of 18 living with them. These account for two per cent of the population across the eleven countries and three periods. An additional three per cent of the population are resident children of lone parents.

**Table 2.2 Social risk groups – definitions and sizes of groups, average across countries and periods.**

	<b>Total</b>
<b>Lone parents (all ages)</b>	2%
<b>Child &lt; 18 of lone parent</b>	3%
<b>Working-age adult aged 18-65 with a disability (excluding lone parents)</b>	10%
<b>Child &lt; 18 of adult aged 18-65 with a disability</b>	3%
<b>Other children under 18</b>	14%
<b>Young adults aged 18-29 (not a lone parent, not with a disability)</b>	13%
<b>Other working-age adults aged 30-65 (not a lone parent, not with a disability – treated as the reference group because of expected low risk)</b>	39%
<b>Older people aged 66+</b>	16%
<b>Total</b>	100%

Source: EU-SILC longitudinal data for 2005-06, 2008-09 and 2013-14 (N=490,445), weighted within country and weighted across country so that each country has equal weight (rather than by population), analysis by authors. Note: due to rounding, the percentages may not add up to 100%.

Working-age adults with a disability are those aged between 18 and 66 who are limited in terms of activities people usually do because of a health problem.<sup>13</sup> They account for ten per cent of the population. Their resident children under the age of 18 make up another three per cent.

The remaining groups shown in the rows of the table consist of other children under the age of 18 (14 per cent of the population), young adults aged 18 to 29 (13 per cent of the population), other working-age adults aged 30 to 65 (39 per cent of the population) and older people aged 66 and over (16 per cent of the population). These groups are not lone parents and, apart from those aged over 66 (who may also have a disability), are not people with a disability. Working-age adults in the age range 30-65 are treated as the reference group here as we would expect them to experience the fewest barriers to labour market participation.

---

<sup>13</sup> The exact question wording in SILC is “For at least the last 6 months have you been limited in activities people usually do, because of a health problem? (If limited, specify whether strongly limited or limited).”

Table 2.3 shows how the sizes of the social risk groups vary by country. First, the rows at the bottom of the table give an indication of the numbers of adults and children in the population of these countries. The percentage of children is highest in Ireland, at 27 per cent, with the next highest figure of 22 per cent in Sweden, the Netherlands and the UK. The percentage of children is lowest in Italy and Greece, at 16 per cent and 18 per cent, respectively. The percentage of people aged 66 and over is lowest in Ireland at 11 per cent and highest in Italy and Greece at 20 per cent and 18 per cent, respectively.

**Table 2.3 Sizes of social risk groups by country, average across periods.**

	SE	NL	FI	AT	BE	FR	UK	IE	ES	IT	EL
<b>Lone parents (all ages)</b>	2%	1%	2%	2%	2%	2%	3%	3%	1%	1%	1%
<b>Child &lt; 18 of lone parent</b>	3%	2%	3%	3%	5%	4%	5%	6%	2%	2%	1%
<b>Working-age adult aged 18-65 with a disability (excluding lone parents)</b>	6%	8%	11%	14%	11%	10%	10%	10%	10%	10%	7%
<b>Child &lt; 18 of adult aged 18-65 with a disability</b>	2%	3%	4%	4%	4%	3%	3%	4%	4%	3%	2%
<b>Other children under 18</b>	17%	17%	15%	11%	13%	13%	13%	16%	14%	12%	15%
<b>Young adults aged 18-29 (not a lone parent, not with disability)</b>	12%	13%	13%	13%	13%	13%	11%	10%	14%	12%	14%
<b>Other working-age adults aged 30-65 (not a lone parent, not with disability)</b>	40%	42%	38%	36%	38%	37%	38%	37%	40%	41%	42%
<b>Older people aged 66+</b>	18%	14%	15%	15%	15%	17%	16%	11%	16%	20%	18%
<b>Total</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Total children</b>	22%	22%	21%	19%	21%	21%	22%	27%	20%	16%	18%
<b>Total adults aged 18-65</b>	60%	65%	64%	66%	64%	63%	63%	61%	65%	64%	64%

Source: EU-SILC longitudinal data for 2005-06, 2008-09 and 2013-14 (N=490,445), analysis by authors. Note: due to rounding, the percentages may not add up to 100%.

Lone parent families differ in prevalence across countries. Combining the adults and children in lone parent families gives a range from two per cent in Greece and 3 per cent in Italy and Spain to 10 per cent in Ireland and 8 per cent in the UK. Perhaps a more informative figure is the percentage of children living in lone parent families.

Dividing the percentage of children living in lone parent families by the total percentage of children gives figures ranging from 7 per cent in Greece and 11 per cent in the Netherlands and Italy to 23 per cent in the UK, Ireland and Belgium. It is worth noting that lone parenthood is more significant for children than for adults in the sense that a higher proportion of children (16 per cent on average across the eleven countries) than of adults (three per cent of working-age adults) are found in lone parent households.

The percentage of the population who are working age adults with a disability or their children is in the range from 11 to 15 per cent in eight of the eleven countries, with higher figures in Austria (18 per cent) and lower figures in Sweden and Greece (8 to 9 per cent). Taking together the children in the two vulnerable family types (of lone parents and working-age adults with a disability), and expressing it as a percentage of all children (that is, dividing by the total children percentage in the second to last row of the table), the average is 32 per cent across the countries. It ranges from low figures of 16 per cent in Greece and 23 per cent in the Netherlands and Sweden to highs of 37 to 39 per cent in Austria, Belgium, France, the UK and Ireland.<sup>14</sup>

Children who are not in lone parent families and do not have a parent with a disability (labelled 'other children' in Table 2.3), account for 13 to 17 per cent of the population in nine of the countries, with slightly lower figures in Austria and Italy (11-12 per cent).

Adults aged 18 to 30 who are not lone parents or and do not have a disability ('other young adults') account for a lower percentage of the population in the UK and Ireland (10 to 11 per cent) but fall within a narrow range for the other countries (12 to 14 per cent).

Working-age adults aged 30 to 65 who are not lone parents and do not have a disability, the reference group, are the largest group in all countries, ranging from 36 to 42 per cent of the population.

---

<sup>14</sup> This figure of 32 per cent overall is evenly divided between lone parent families and those affected by working-age disability.

For simplicity, and because of the small sizes of these groups in some countries, parents and children are combined in the lone parent families and in families of a working age adult with a disability when we examine the relationship between social risk and poverty and deprivation. These groups are combined in Table 2.4 which shows the education level of the householder by country and social risk group. The householder is the person responsible for the accommodation or the older of two or more equally responsible people. Note that in the case of lone parents, adults with a disability or young adults the householder may not be the person in the social risk group. For instance, if the householder is the young adult's parent, it is the parent's level of education that is shown.<sup>15</sup>

**Table 2.4: Percentage of Household Reference Persons who have third level education by social risk group and country**

	Social Risk group						Compared to Ref.*	
	Lone parent & child(ren)	Adult with disability & children	Young adults	Others 30-65 (Ref.)	Others <18	Older adults	Lone parent	Adult with disability
NL	26%	31%	33%	37%	40%	19%	0.72	0.84
FI	34%	32%	27%	41%	45%	19%	0.84	0.80
AT	17%	17%	20%	24%	28%	16%	0.70	0.68
BE	32%	27%	43%	41%	48%	20%	0.77	0.66
FR	29%	21%	31%	29%	39%	11%	1.01	0.72
UK	24%	26%	38%	40%	43%	19%	0.61	0.65
IE	21%	20%	28%	35%	41%	12%	0.60	0.56
ES	26%	21%	24%	31%	35%	12%	0.84	0.69
IT	16%	9%	11%	14%	14%	7%	1.19	0.70
EL	17%	14%	21%	24%	27%	10%	0.70	0.60

Source: EU-SILC longitudinal data for 2005-06, 2008-09 and 2013-14 (N=490,445), analysis by authors. Note: \* This is the rate for the lone parents and for adults with a disability divided by the rate for the reference group (other adults aged 30-65).

In general, apart from lone parent families in France and Italy, lone parents and adults with a disability are much less likely to be living in households where the householder has third level education. The gap is particularly large for lone parents in the UK and Ireland where lone parents are only about 60 per cent as likely as the

<sup>15</sup> In fact, this is why the percentage of householders with third level education is higher for the reference group than for young adults. Education levels are higher for younger adults, in general, because of the expansion of education over time. However, if young adults live with their parents (likely to be towards the upper end of the 30-65 age range), their parents' education is shown.

reference group (others aged 30-65) to be living with a highly educated householder. The gap is also large for working aged adults with a disability in these two countries.

## 2.5 Analysis methodology

We use the longitudinal data from EU-SILC covering all of the years from 2005 to 2014. We focus on transitions across pairs of years in order to maximise the number of cases available for analysis. For example, we include households responding in both 2005 and 2006; 2008 and 2009 and in both 2013 and 2014. The EU-SILC survey, as noted above, follows individuals over a four-year period. Because the data are analysed at individual level but key indicators are measured at the household level, we take account of clustering in the models and significance tests.<sup>16</sup>

In reporting the results of statistical models, we focus on results that are statistically significant at the  $p \leq 0.05$  level. Because of the very large sample size, even very small differences will be statistically significant. In our commentary, we focus on the size of the difference rather than its statistical significance, but we do note where an apparent pattern is not statistically significant because it is based on a smaller subset of cases.

When we model the results in order to isolate the influence of particular factors, we use linear probability models. Although binary models (such as logit or probit) have conventionally been used to analyse binary outcomes such as poverty and deprivation, Hellevik (2009) shows that the linear probability model perform as well as the logit. For reasons that we elaborate in Chapter 3, the linear probability models are more suited to examining the absolute difference in risk between groups and countries, while logit models are appropriate to tests around the relative differences in risk.

---

<sup>16</sup> Clustering reduces the precision (i.e. widens the margin of error) of sample estimates and sample weighting often does as well (Solon, Haider and Wooldridge, 2015), although weights reduce bias due to potential under-representation of certain groups. The impact on standard errors was taken into account using the 'svy' routine in Stata (StataCorp, 2013a and b; Heeringa, West and Berglund, 2010; and Williams, 1978).

## 2.6 Summary

In this chapter, we described the EU-SILC data that is analysed in this study, noting the benefits in terms of longitudinal follow-up of individuals, large sample size, representativeness and availability of comprehensive indicators of household income and living standards. The analysis is based on individuals living in private households who are present in two waves of EU-SILC in any of the three periods (2005-06, 2008-09 and 2013-14) and any of the eleven countries (Sweden, Finland, the Netherlands, France, Belgium, Austria, Ireland, UK, Spain, Italy, Greece). The population for the study consists of people of all ages. The key indicators for analysis are income poverty, material deprivation and social risk group. Throughout the report, the analysis is based on weighted data, and significance tests take account of weights and clustering within households.

## Chapter 3: Deprivation and Poverty by Social Risk Group

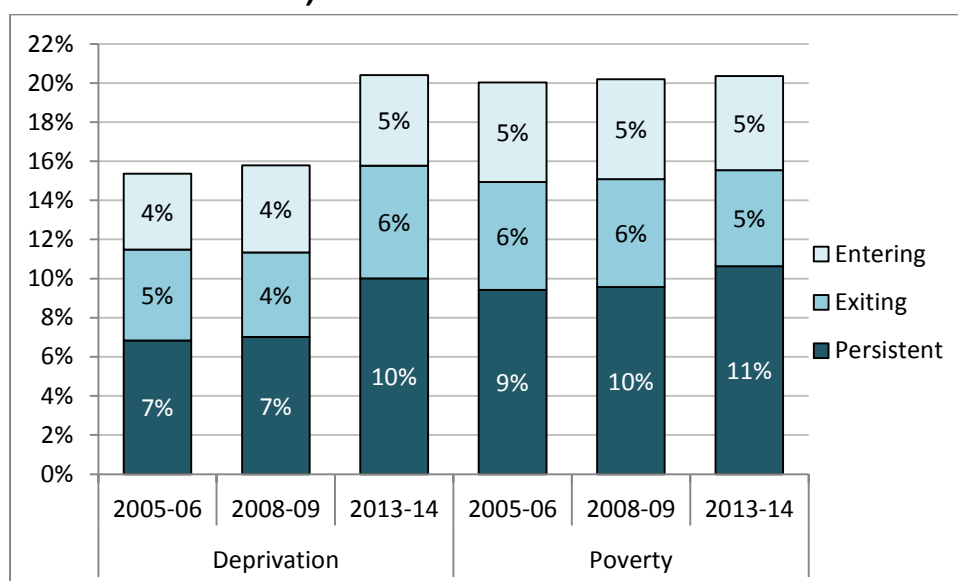
### 3.1 Introduction

In this chapter we document the differences between social risk groups in material deprivation and income poverty and ask whether these differences are found in all countries. The analysis is mainly descriptive in this chapter, with some statistical modelling to test for the significance of the differences between groups. The unit of analysis is the person, with household level variables such as income poverty and material deprivation attributed to each household member.

### 3.2 Deprivation and Poverty Dynamics

Before examining the differences between social risk groups, Figure 3.1 shows the overall levels of poverty and deprivation in the three periods. The overall rate is calculated by taking the average across the eleven countries, weighting by population characteristics within countries, but giving each country equal weight.

**Figure 3.1 Deprivation and Poverty Dynamics by period (average across countries)**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Minimum sample size is 163,000 (for 2005-2006).

The first panel in the table shows the pattern for deprivation. We distinguish between those who were materially deprived in both waves, those exiting material deprivation (i.e. deprived in the first but not the second wave) and entering material deprivation (i.e. not deprived in the first wave but deprived in the second wave). The overall

height of the bars shows the percentage of people who were materially deprived in either wave. The overall figure shows that there was little change between 2005-2006 and 2008-2009 (at about 15 to 16 per cent) but a substantial rise to just over 20 per cent by 2013-14. There was a substantial rise in persistent deprivation (from 7 per cent to 10 per cent). By 2013-14 we can see the beginnings of recovery as the percentage exiting material deprivation (6 per cent) is a little higher than the percentage entering deprivation.

The overall pattern for income poverty is surprisingly flat, at about 20 per cent. Although incomes fell during the recession, the poverty rate did not change as much as we might expect because income poverty is measured with respect to the median income. Where a large number of incomes fall, the poverty threshold falls so that an even lower income is needed before the household is counted as poor. In this period, the poverty threshold fell in Ireland, Greece and the UK and fell slightly in Spain (see Figure A2.1 in the Appendix).

The rate of persistence for income poverty is higher than the rate for material deprivation, especially early in the period (at about 9-10 per cent for income poverty compared to 7 per cent for material deprivation). In the two earlier periods, the percentages exiting poverty were a little higher than the percentages entering poverty. By the third period (2013-14) the two rates were very similar.

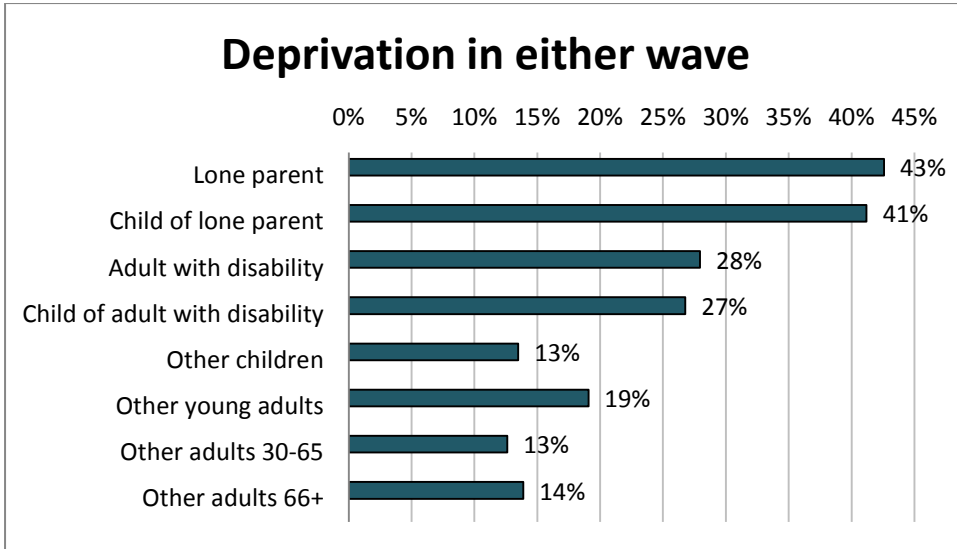
### **3.3 Overall risk of income poverty and material deprivation by social risk**

Figure 3.2 shows the rates of material deprivation by social risk group. The figures represent the average across the three periods (2005-6, 2008-9 and 2013-14) and the average across countries, with each country given an equal weight.

The rates are highest for lone parents and their children (41 to 43 per cent) followed at some considerable distance by working age adults with a disability and their children (27-28 per cent). These two groups clearly stand out as having markedly higher levels of deprivation than the remaining groups. This confirms results we had already seen for Ireland (Watson et al 2016). The next group is young adults (aged 18 to 29), at 19 per cent. For the final three groups - other children, other working age adults aged 30-65 and older adults – the rates are very similar at 13-14 per cent.



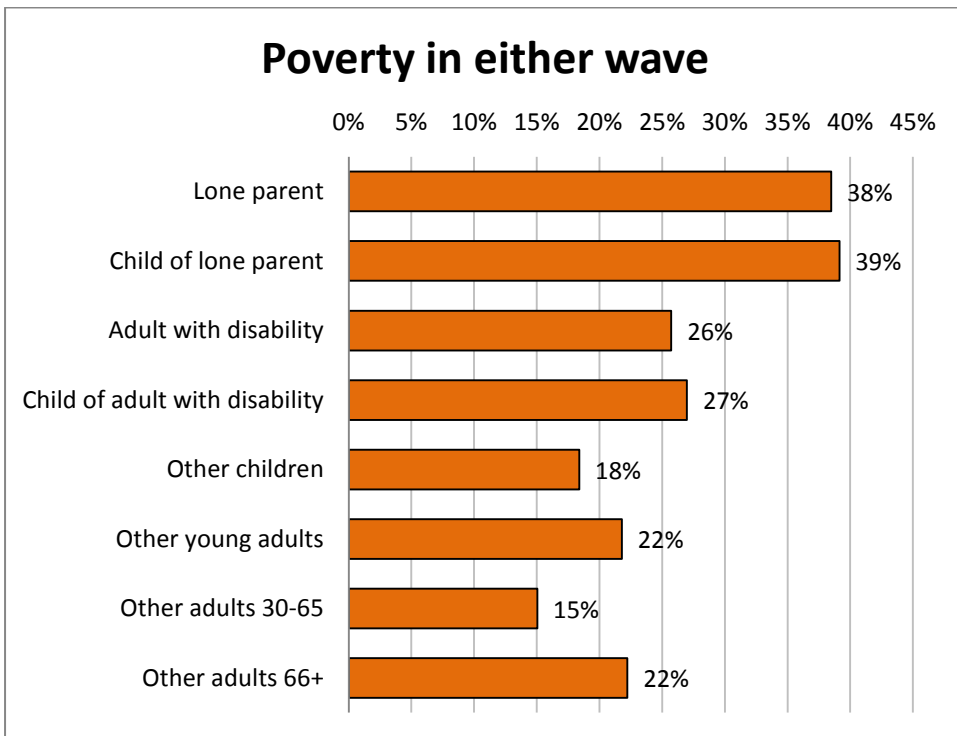
**Figure 3.2 Deprivation in either wave by social risk group**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Sample size= 476,412.

Figure 3.3 shows the rates of income poverty by social risk group. Again, the figures represent the average across the three periods (2005-6, 2008-9 and 2013-14) and the average across countries, with each country given an equal weight.

**Figure 3.3 Poverty in either wave by social risk group**

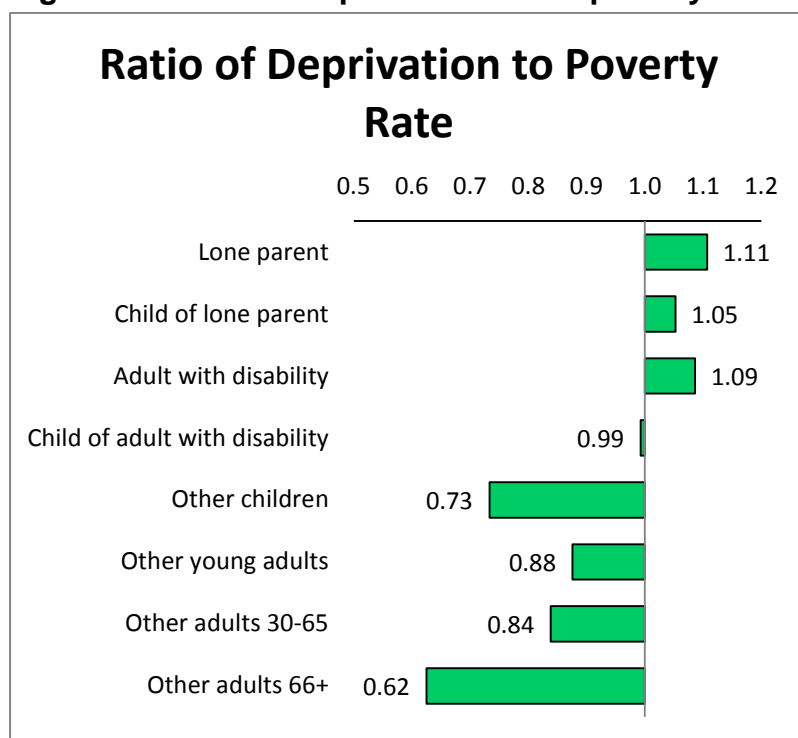


Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Sample size= 490,216.

The patterns are broadly similar to those for material deprivation in identifying lone parent families (38-39 per cent) and those affected by disability (26-27 per cent) as being vulnerable groups, but the differences between groups are not as large, with a figure of 15 per cent for other adults aged 30-65 and 18 per cent for other children. This time, the third position is shared by other young adults and older adults (both 22 per cent).

Clearly, income poverty and deprivation are influenced by slightly different factors. Figure 3.4 illustrates how this affects the comparisons between groups. It shows the ratio of the deprivation rate to the poverty rate for each group. Now, the income poverty rate is higher overall than the material deprivation rate – 15 per cent compared to 13 per cent for ‘other adults aged 30-65’, the largest group – so that most of the ratios are less than one. There are marked differences between groups, however.

**Figure 3.4 Ratio of Deprivation rate to poverty rate by social risk group**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Sample size= 476,412.

Lone parents and adults with a disability have higher deprivation than poverty rates, with ratios of 1.11 and 1.09, respectively. At the other extreme, the deprivation rate for older adults is only 62 per cent of their poverty rate. This indicates that the actual

material living circumstances of the groups differ in ways that are only partially captured by their income poverty rates. Lone parents have a lower living standard than we might expect based on their income position, while older adults have a higher living standard than we might expect. We would expect that accumulated resources in the form of savings and owning the home outright to be important in explaining the lower deprivation of older adults, as well as social support networks.

### **3.3 Persistent material deprivation and income poverty by social risk**

In the next set of figures (Figures 3.5 and 3.6) we show the persistent material deprivation and persistent poverty rates by social risk group. Recall that deprivation and income poverty are measured at the household level. Here, persistence refers to the individual being in a household that is deprived in both waves. Transient deprivation in the figure refers to deprivation in one of the two waves: the person is in a household that is exiting or entering deprivation between the waves.<sup>17</sup>

Just as we saw for deprivation in either wave, Figure 3.5 shows that persistent deprivation is significantly higher for lone parent families (23 to 24 per cent), followed at some distance by families affected by working-age disability (13 to 14 per cent). The rates are very similar for adults and children in these household types. This is not surprising, given that the deprivation indicators are measured at the household level. However, if the deprivation levels were substantially different for larger families of these types, we might expect to see differences between adults and children. For instance, if larger lone parent families had significantly higher levels of deprivation than smaller lone parent families, this would lead to a higher rate for children than for adults in these family types.

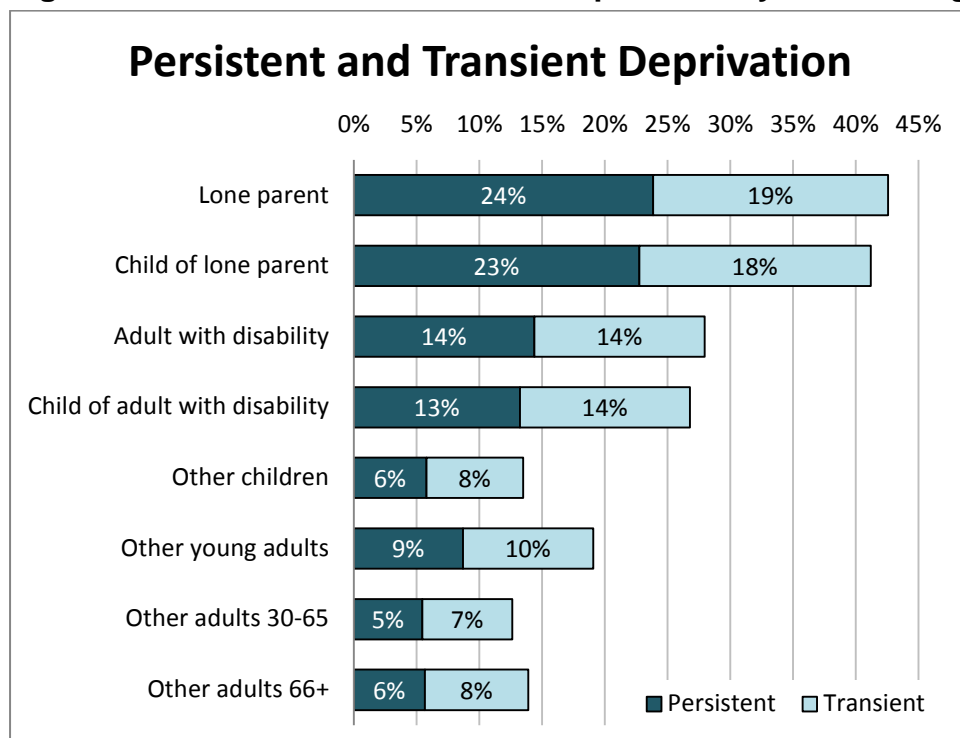
The next group, again at some distance, is young adults (9 per cent persistent deprivation). The persistent deprivation rates are lower and very similar to each other (ranging from 5 to 6 per cent) for the remaining three groups: other adults aged 30 to 65; other children and older adults (over age 66).

---

<sup>17</sup> 'Transient' here refers to the experience in the two years of observation. We do not know how long someone entering poverty will be poor nor how long someone exiting poverty has been poor but their status is undergoing a transition in the year of observation.

The rate of persistence – that is, the percentage of deprivation in either wave that is present in both waves – is higher for the groups that have a higher deprivation rate in either wave. Deprivation, where it exists in either wave, is more likely to be persistent for lone parents (56 per cent), working age adults with disabilities (51 per cent) compared to 43 per cent for other adults aged 30-65 and 41 per cent for older adults.<sup>18</sup>

**Figure 3.5 Persistent and Transient Deprivation by social risk group**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally.

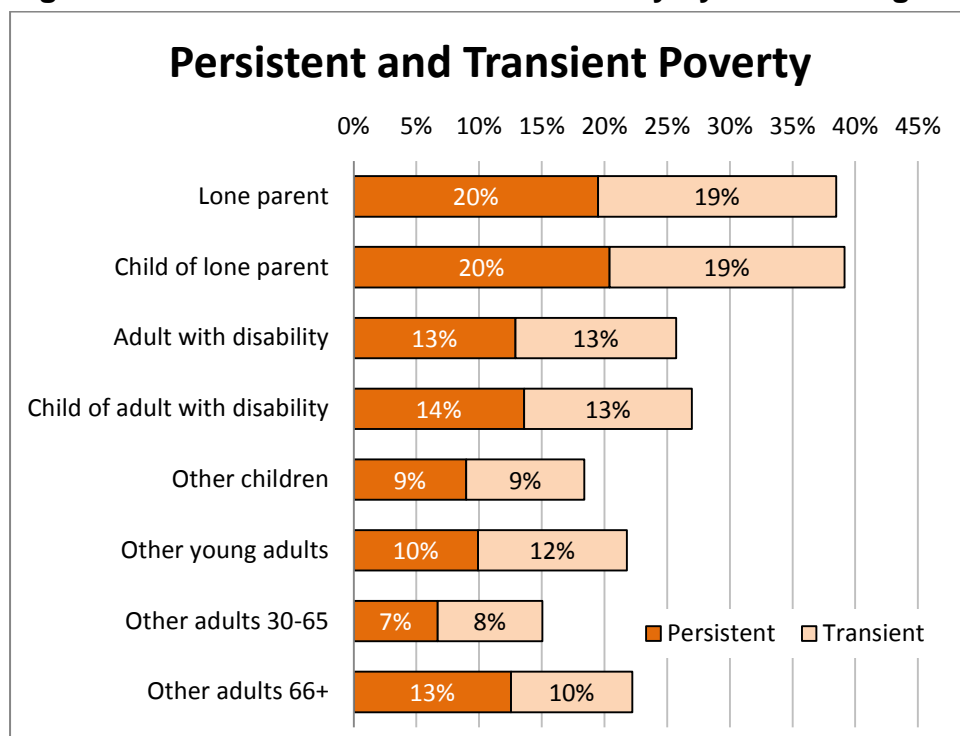
Figure 3.6 shows the rate of persistent and transient income poverty by social risk group. As we saw above in the case of deprivation, persistent poverty also follows the same pattern as poverty in either wave: It is highest for lone parent families (20 per cent), followed by families affected by adult disability (13 to 14 per cent). The relative positions of the other groups differs, though, in that the next highest rate of persistent poverty is found among older adults, with a rate very close to families affected by working-age disability (13 per cent). Among the remaining three groups,

<sup>18</sup> For example, the persistence rate for lone parents is calculated as persistent poverty divided by the sum of persistent and transient poverty:  $(24/(24+19)) = 56$ .

the persistent poverty rate is higher for children and young adults (9 to 10 per cent) than for other adults aged 30-64.

Also similar to the finding for deprivation is the fact that persistence (the percentage of poverty in either wave that is found in both waves) tends to be higher for the two vulnerable groups. The percentage of income poverty in either wave that is persistent is 50 to 52 per cent for lone parent families and families of adults with a disability compared to 44 per cent for other adults aged 30-65. It is highest of all for older adults at 56 per cent, however. It is understandable that older adults would have a higher rate of persistence when it comes to income poverty, since they are likely to have fewer transitions (such as getting a job) that would increase their incomes. The fact that they have a lower rate of persistence when it comes to deprivation, as we saw earlier, is more puzzling. It may reflect a relatively high incidence of becoming deprived as health costs increase or as accumulated resources are eroded.

**Figure 3.6 Persistent and Transient Poverty by social risk group**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally.

### 3.8 Summary

In this chapter the analysis focused on the overall rate of persistence of poverty and deprivation, the differences between social risk groups in both being deprived or poor in either wave and being deprived or poor in both waves.

Across the eleven countries, the average deprivation rate was slightly lower than the average poverty rate in the three periods. In the case of deprivation, there was a clear increase over the course of the recession in both deprivation in either wave and deprivation in both waves. For poverty, however, the pattern was surprisingly flat, with little difference in either poverty in either wave or poverty in both waves across the three periods. This is because income poverty is measured against median incomes, and median incomes fell with the recession. Deprivation did a better job of capturing the drop in living standards with the recession. The rise in deprivation may also capture the impact on households of any reduction in the supply of public services which households must now provide for themselves by making cuts elsewhere in their spending.

Turning to the differences between social risk groups, and taking the average across the three periods, we see a clear distinction in terms of both poverty and deprivation. Lone parent families have a markedly higher rate of both deprivation and poverty than the other groups and the proportion of their deprivation and poverty that is persistent is also higher. The next highest levels were found among families affected by working age disability. Again, the persistence of deprivation and poverty were higher than average for these groups.

The position of the remaining four groups differed across deprivation and poverty, however. In the case of deprivation, the rate was higher for younger adults and was very similar across other adults, other children and older adults. Older adults were unusual in having the lowest rate of persistent deprivation – not something we would expect given their dependence on relatively fixed pension incomes, unless the pension rate increased or services such as health were provided at a reduced cost. We observed the opposite pattern for income poverty with a higher rate of persistence for older adults.

In the case of income poverty, the rate for young adults was relatively high and similar to the rate for adults affected by working age disability. The rate was similarly high – but with a higher level of persistence – for older adults. Next came other children (18 per cent) and other working-age adults (15 per cent).

In general, the differences between income poverty and deprivation in terms of variation over time and across social risk groups, highlights the fact that the indicators are capturing different dimensions of poverty. Deprivation did a better job of capturing the drop in living standards that came with the recession. Poverty was less successful at doing this when the median income is changing rapidly. On the other hand, both indicators identified the same two social risk groups as being particularly disadvantaged: lone parent families and families affected by working-age disability.

## Chapter 4: Country and Regime Differences

### 4.1 Introduction

In this chapter, we focus more specifically on country differences. We begin by asking whether the overall differences between social risk groups are found in all countries. We then examine the social risk gap in poverty and deprivation. This is the gap in poverty and deprivation rate between the vulnerable groups such as lone parents and working-age adults with a disability, on the one hand, and the reference category of other working age adults, on the other. We ask whether this gap is similar across countries or whether, as we hypothesised in Chapter 1, the gap is smaller in the Social democratic countries. We note that the conclusions we draw might differ depending on whether we focus on the relative or absolute gap.

We use an aggregated classification of social risk groups here. In the last chapter we saw that there was little difference in the poverty and deprivation rates between adults and children in the two vulnerable groups (lone parent families and families affected by working-age disability). As these are small groups, we combine the adults and children to give a six-group classification overall.

### 4.2 Deprivation and poverty by social risk group and country

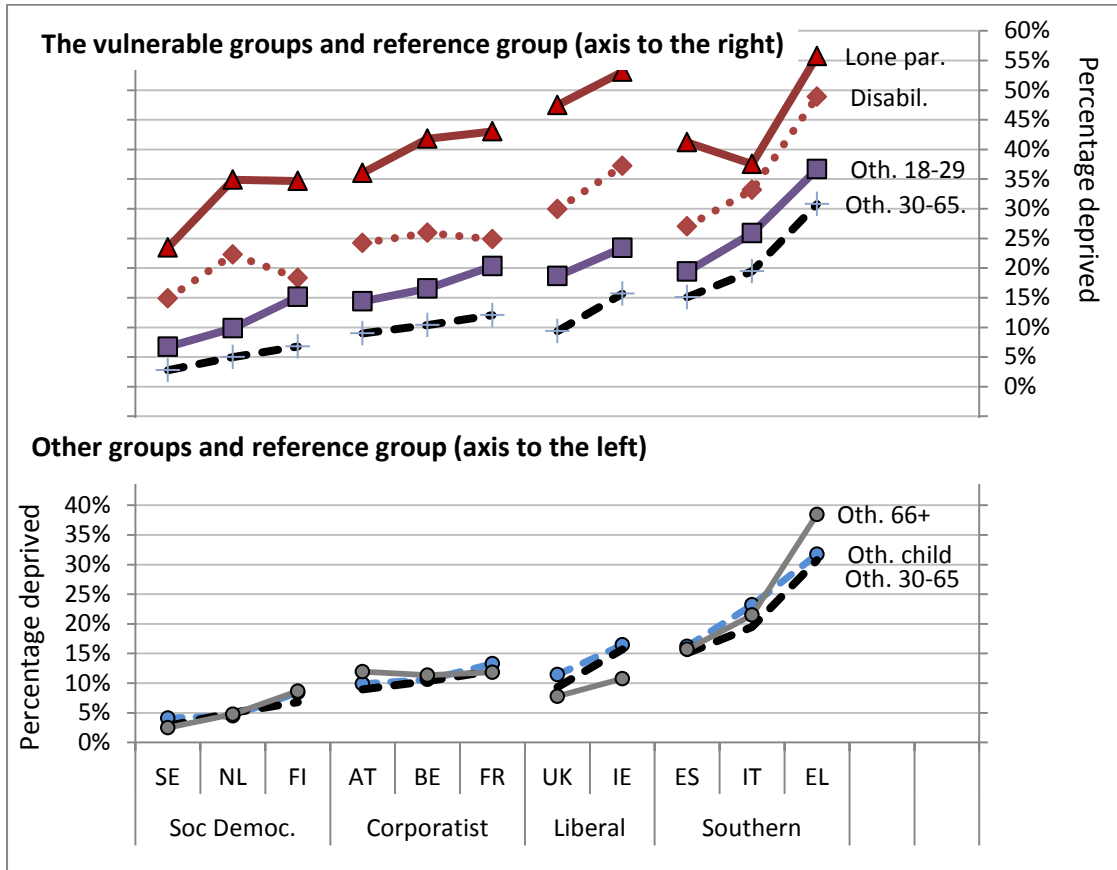
In this section, we ask whether the same social risk groups are at a higher risk of poverty and deprivation across the eleven countries. Compared to the reference group of adults aged 30-65, the rate of being materially deprived in either wave is significantly higher in all countries for families of lone parents, families of working-age adults with a disability and for young adults (see Figure 4.1). There are some differences between countries in the sizes of the gaps between these three groups—such as a smaller gap in Italy between lone parents and adults with a disability. Nevertheless, the deprivation rate for the three groups is markedly higher than for the other three social risk groups and the rank order of the top three remains the same.

In most countries, the rate for older adults and for other children is very close to that of the reference category of other adults aged 30-64. The rate for older adults is



significantly lower in Ireland and the UK, however, and significantly higher in Greece (at  $p < .003$ ).

**Figure 4.1 Deprivation rates of social risk groups by country**



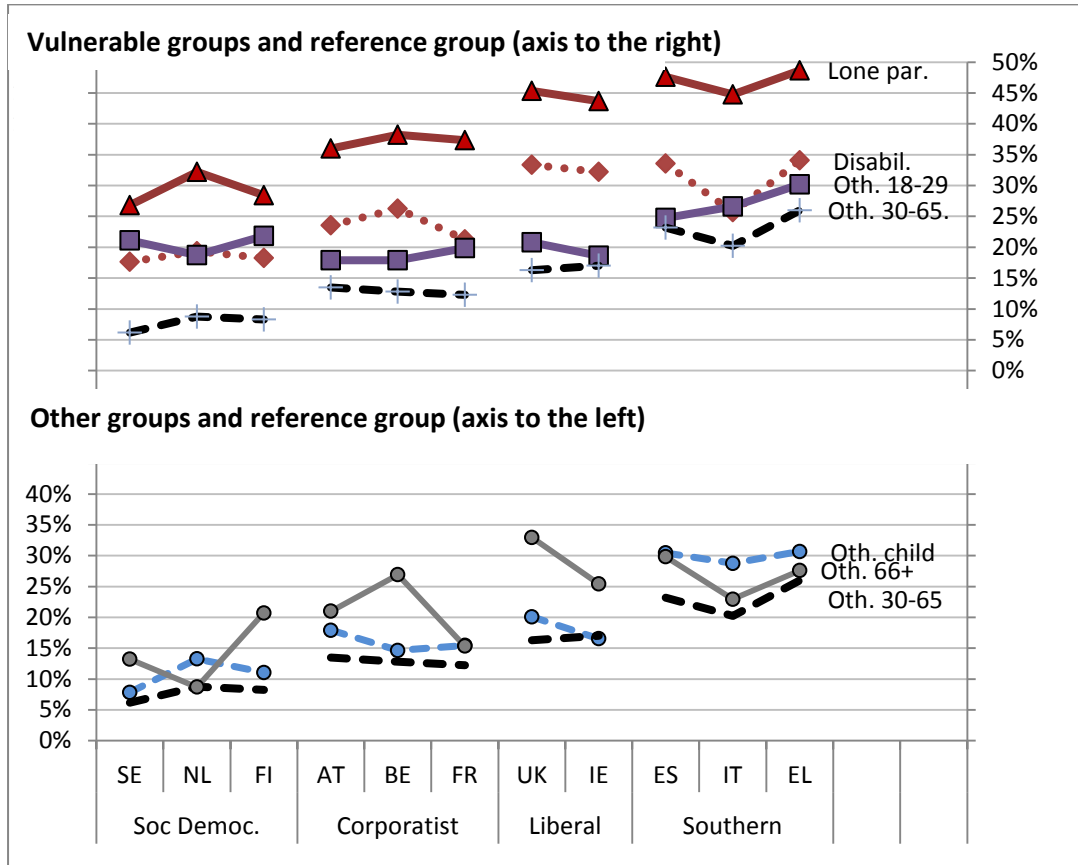
Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. N= 482,791.

The pattern for income poverty, as seen in Figure 4.2, varies more across countries than the pattern we saw for deprivation. Again, we consider being income poor in either wave. Compared to the reference group of adults aged 30-65, the rate of being income poor is significantly higher in all countries for families of lone parents, families of working-age adults with a disability and, apart from Ireland and Spain, for young adults. However, there are differences between countries in the relative position of young adults and adults with a disability. There is no significant difference between the poverty rates of the two groups in the Netherlands, France and Italy and it is higher (but by a small margin) for young adults in Sweden and Finland.

The rate for older adults compared to other adults aged 30 to 65 is very variable across countries. It is not significantly different from the reference group in the

Netherlands. Although it is significantly higher than the reference group in other countries, the size of the gap between older adults and other working-age adults is very variable, with a figure more than twice as high in Sweden, Finland, Belgium and the UK; about 1.5 times higher in Austria and Ireland and almost the same in the Netherlands and Greece.

**Figure 4.2 Income poverty rate of social risk groups by country**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Poverty rate refers to poverty in either wave. N= 490,216.

### 4.3 Country and regime differences in the social risk gap

The social risk gap is a way of summarising how much difference there is between the deprivation or poverty rate of the different social risk groups. We do this by comparing the rate of each social risk group to the rate for the reference (and largest) group of ‘other adults aged 30-64’. By taking the largest group as the reference category, we control for overall country differences in poverty and deprivation.

This calculation is shown for deprivation (any wave) of lone parents compared to the reference group in Table 4.1. The calculation can be done in two different ways, however. We can look at the relative gap, that is, the *ratio* of the rate for the vulnerable group to the rate for the reference group within country. Alternatively, we can look at the absolute gap: the *difference* between the rate for the vulnerable group and the rate for the reference group within country. The relative and absolute gaps can give different pictures of how groups compare, particularly when the rate is very low in the reference group (as it is in Sweden, for instance). As noted in Chapter 2, some of the items in the material deprivation set have virtually no cases in the more affluent countries. When the rate is very low for the reference group in some of the countries, as it is for the more affluent countries for material deprivation, slight differences in the rate for the reference group will have a disproportionate impact on the comparison.

For instance, suppose the rate for the reference group was 5 per cent in Country A and 2 per cent in Country B, but the rate for the vulnerable group is 30 per cent in both countries. The relative gap would show a rate for the vulnerable group that was 6 times higher than the reference group in Country A and 15 times higher in Country B. The absolute social risk gap would be 25 percentage points in Country A and 28 percentage points in Country B – much closer together than the relative gap would suggest. With a different set of deprivation items – one that captures a higher percentage of the population in the affluent countries – the distinction between conclusions based on the relative and absolute measures would not be as great.

Turning to Table 4.1, the relative gap in deprivation risk in Sweden is  $23/3 = 8.4$ . The ratio is by far the highest in Sweden, in part because this country has such a low rate for the reference group (at 3 per cent). It is lowest in Greece, at 1.8, despite the fact that Greece has the highest rate of deprivation for lone parents. The absolute gap, on the other hand, is 21 percentage points for lone parents compared to the reference category. The absolute gap in Sweden is rather low compared to the other countries (only Italy has a lower rate). Therefore, the relative and absolute gaps would give a very different picture of how Sweden compared to other countries.

Which is the best measure? We can only address this question as it applies to the issues addressed here. The relative gap tells us that the risk of deprivation is eight times higher for lone parents than for the reference group in Sweden but ‘only’ 1.8 times higher in Greece. However, how informative or useful is this when the rate for the reference group is 3 per cent in Sweden and 31 per cent in Greece? With a deprivation indicator that captured a higher proportion of the population in affluent countries, the relative gap may be more informative. The absolute gap tells us that an extra one fifth of lone parents in Sweden are deprived compared to the reference group while an extra one-quarter of lone parents are deprived in Greece. From the perspective of impact on individual’s lives and from the policy perspective, this absolute figure is particularly relevant.<sup>19</sup> Therefore, we will focus on the absolute gap in the remainder of this report.

**Table 4.1 Calculating the social risk gap in deprivation for lone parents**

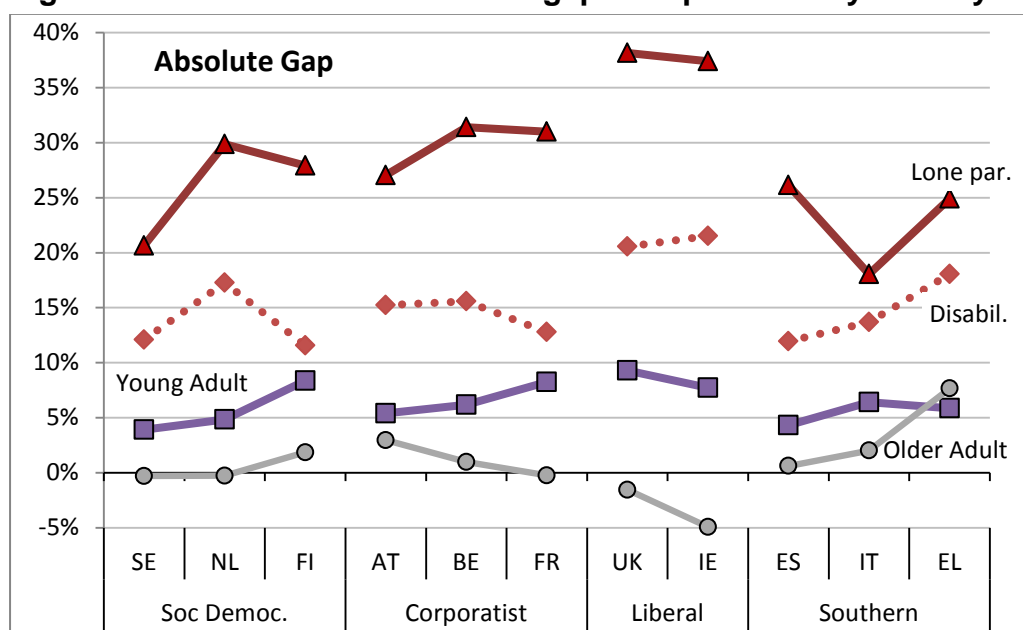
		A. Lone par. % deprived	B. Ref. group % deprived	Relative social risk gap (A/B)	Absolute social risk gap (A-B)
<b>Soc Democ.</b>	<b>SE</b>	23%	3%	8.4	21%
	<b>NL</b>	35%	5%	7.0	30%
	<b>FI</b>	35%	7%	5.1	28%
<b>Corporatist</b>	<b>AT</b>	36%	9%	4.0	27%
	<b>BE</b>	42%	10%	4.0	31%
	<b>FR</b>	43%	12%	3.6	31%
<b>Liberal</b>	<b>UK</b>	47%	9%	5.1	38%
	<b>IE</b>	53%	16%	3.4	37%
<b>Southern</b>	<b>ES</b>	41%	15%	2.7	26%
	<b>IT</b>	38%	19%	1.9	18%
	<b>EL</b>	56%	31%	1.8	25%

Source: EU-SILC longitudinal data for 2005-06, 2008-09 and 2013-14, analysis by authors. Note: due to rounding, the percentages may not add up to 100%. Deprivation refers to deprivation in either wave. N= 482,791.

<sup>19</sup> If we were concerned with assessing arguments about the consequences of relative positions (e.g. Wilkinson and Pickett, 2009), there would be a stronger case for focusing on the relative social risk gap. However, Whelan, Russell and Maître (2016) found no evidence that the impact of deprivation on economic stress differs across socio-economic groups in the Irish case.

Figure 4.3 shows the absolute social risk gap in deprivation by country for lone parent families, families of working-age adults with a disability, young adults (aged 18-29) and older adults (age 66 and over). A focus on the absolute gap for a group, say lone parents, is akin to asking how many extra people in lone parent families are deprived because of the higher risk associated with being in this social risk group than in the reference group. The gap is not particularly small in the Social democratic countries, although it is low in Sweden. In fact, the countries that stand out in terms of having a different absolute social risk gap for lone parents and families affected by disability are the Liberal countries (Ireland and the UK), where the gap is distinctly higher than elsewhere. The Liberal countries are also unusual in having a lower absolute social risk gap for older adults. In the UK and Ireland, older adults are *less* likely than the reference group to experience material deprivation.

**Figure 4.3 The absolute social risk gap in deprivation by country**



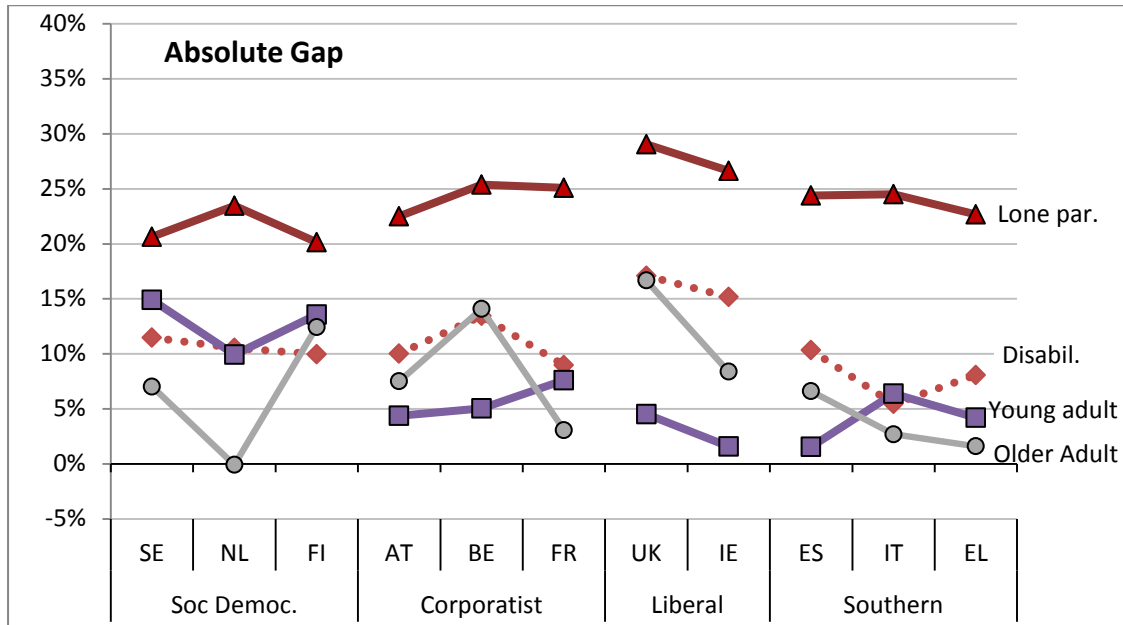
Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Deprivation refers to deprivation in either wave. N= 482,791.

Overall then, the social risk gap for lone parents and adults with a disability is distinctively wider in the Liberal countries than elsewhere. The difference is particularly marked for lone parenthood.

Figure 4.4 shows the absolute social risk gap in income poverty by country. In the case of lone parents, there is very little difference in the absolute gap across

countries: apart from the UK where it is 29 per cent and Ireland where it is 27 per cent, the gap in the other countries is in the range from 20 to 25 per cent. The absolute gap is also a little higher for families affected by disability in Ireland and the UK (15 to 17 per cent compared to an average of 10 per cent across the other nine countries). For both deprivation and poverty, then, the two Liberal countries stand out in terms of having a larger social risk gap for lone parents and for families affected by disability. These countries are also unusual in having a lower deprivation rate for older adults than for other working age adults, although this is not the case for income poverty.

**Figure 4.4 The absolute social risk gap in poverty by country**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Poverty refers to poverty in either wave. N= 490,216.

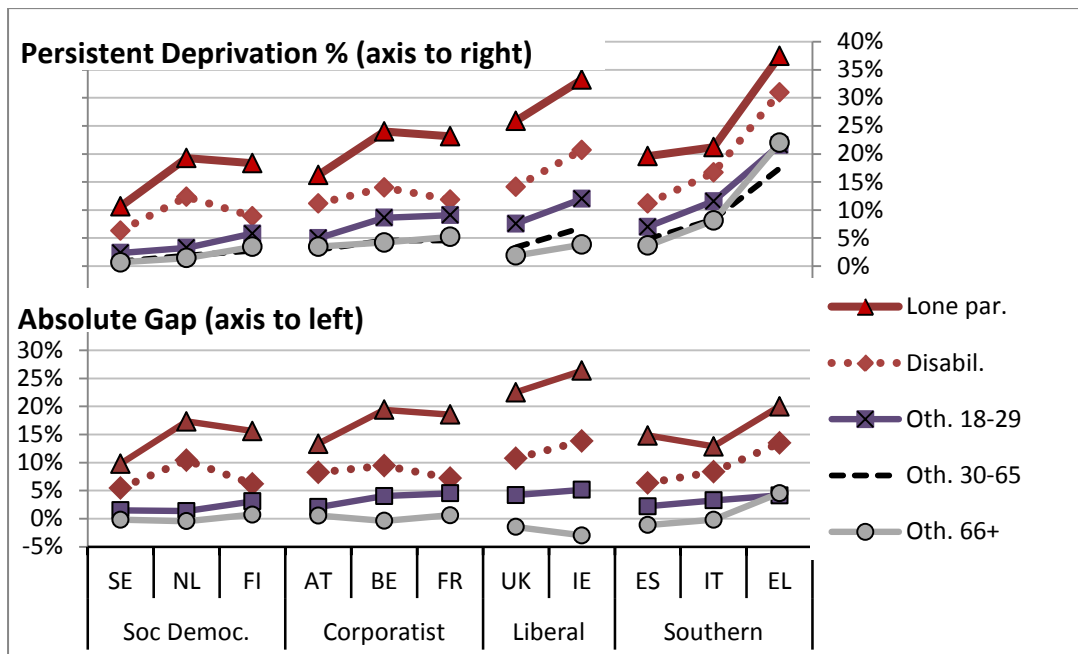
**4.7 Absolute social risk gap in persistent deprivation and poverty**

The analysis above provided some support for the idea that the social risk gap is smaller for vulnerable groups in Social democratic countries. This is true, however, only if we focus on the absolute social risk gap and when we compare the Social democratic to the Liberal countries. It is in the latter countries – the UK and Ireland – that the gap is largest between lone parents and working age adults with a disability, on the one hand, and the reference group of other working age adults, on the other. This pattern was more marked for deprivation than for poverty.

The above analysis focused on deprivation in either wave, however. Now we ask whether this is still true when we focus on persistent deprivation and poverty. Figure 4.5 looks at the rate of persistent deprivation for the different social risk groups and the absolute social risk gap in persistent deprivation. Recall that the absolute gap for a group is simply the difference in the persistent deprivation rate for that group compared to the reference social risk group of other adults aged 30-65.

Turning first to the persistent deprivation rate, shown in the top panel of the figure, we see that the lone parent families and families of working age adults with a disability have the highest rate of persistent deprivation in all countries. In most countries, the next highest persistent deprivation rate is found for young adults, though tied with older adults in Greece. These patterns are broadly similar to those observed earlier for deprivation in either wave.

**Figure 4.5 Persistent deprivation and absolute social risk gap by country**



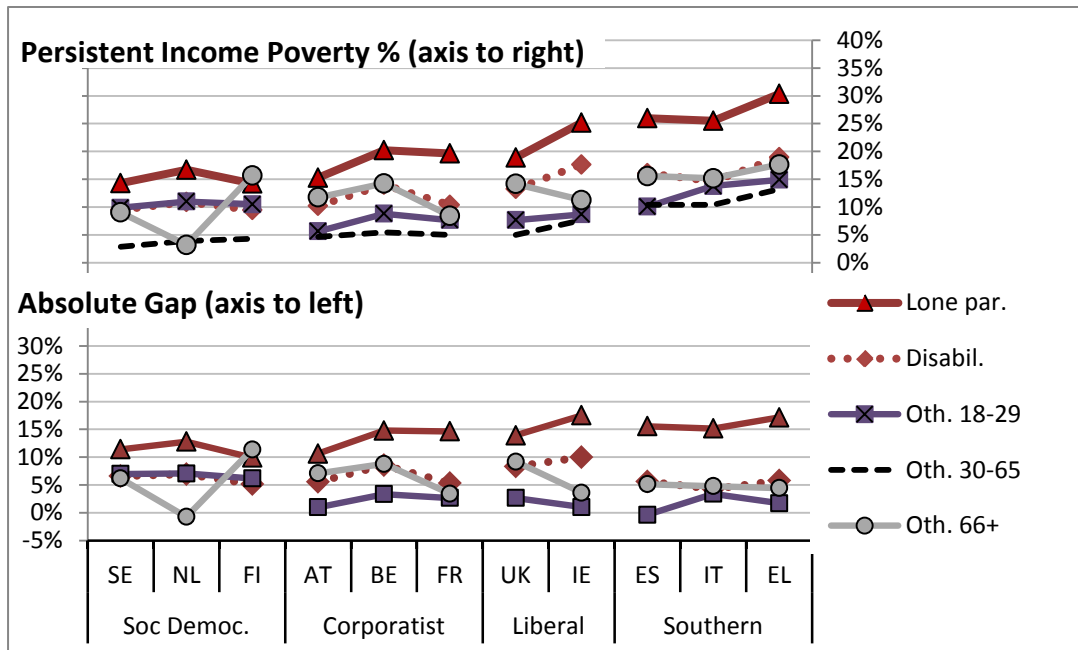
Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Deprivation in either wave. N= 482,791.

The lower panel of the figure shows the absolute social risk gap for persistent deprivation: the rate for the groups shown minus the rate for the reference group (other adults aged 30-65). Our expectation was that the gap would be smaller in Social democratic countries. This expectation is not supported. The gap is small in the three Social democratic countries, but not compared to the Corporatist or

Southern countries. It is the Liberal countries – Ireland and the UK – that stand out as having a higher social risk gap in the case of lone parents. When it comes to working age adults with a disability, the gap is high in Ireland and Greece but there is no clear pattern by group of countries. The absolute gap in persistent poverty is lower for older adults in the Liberal countries. The findings on the social risk gap for persistent deprivation are broadly similar to those for deprivation in either wave, with the Liberal countries having a larger gap for lone parents and a smaller gap for older adults. The findings are different for working age adults with a disability, however, with no clear difference between the Liberal and other regimes in the persistent deprivation gap.

We now turn to a consideration of persistent poverty and the social risk gap in persistent poverty, as shown in Figure 4.6. Recall that we saw above, for poverty in either wave, that there was a tendency for the social risk gap for lone parents and working age adults with a disability (and any children) to be larger in the Liberal countries. This does not emerge clearly in the case of the social risk gap in persistent income poverty, as shown in the lower panel of Figure 4.6.

**Figure 4.6 Persistent income poverty and absolute social risk gap by country**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Persistent poverty refers to income poverty in both waves. N=490,216.



When we consider persistent income poverty, the Liberal countries do not stand out in having a higher social risk gap for lone parents or working age adults with a disability. The gap is higher than elsewhere in Ireland, but the UK is similar to several other countries. Neither does the pattern conform to our initial expectation that the social risk gap would be smaller in the Social democratic countries.

#### **4.7 Summary**

In this chapter we explored country differences in the levels of poverty and deprivation among social risk groups. Our hypotheses at the outset were that the same social risk groups would have higher rates of deprivation in poverty across countries and that the differences between the social risk groups would be smaller in the Social democratic countries. We expected the latter because of the reduced reliance on the market in these countries for the provision of basic living standards and essential services.

In general, the first hypothesis was supported. People in lone parent families and those in families affected by working age disability had a markedly higher deprivation rate than the reference group of other adults aged 30-65, both in terms of deprivation in either wave and persistent deprivation, and this was found in all countries. The same was true for income poverty and persistent income poverty.

The second hypothesis was not supported. We looked at the social risk gap in absolute terms: the difference between the deprivation rate of the vulnerable groups and the rate for the reference group of other adults aged 30 to 65. In the case of material deprivation, the Social democratic countries did not stand out as having a markedly lower social risk gap in deprivation for either lone parent or working-age disability. It was the Liberal countries that stood out, with a higher social risk gap in Ireland and the UK, especially for lone parents. This was true for both deprivation and poverty, focusing on being deprived or poor in either wave. It was also true of persistent deprivation but the pattern was less clear for persistent poverty, where the gap was higher in Ireland for both vulnerable groups but not in the UK, the second country in the Liberal regime.

## Chapter 5: Changes over time – the economic crisis

### 5.1 Introduction

So far, we have examined differences in deprivation and poverty between social risk groups and across countries and asked whether the social risk gap differed across regimes. In this chapter, we introduce the dimension of time, specifically asking how the recession influenced the deprivation rate of social risk groups and whether this varied by country. In particular, we ask whether there was polarisation of risk with the recession. Based on the pattern we saw in Chapter 2, with material deprivation more responsive to the recession than income poverty, we might expect the pattern to be clearer for deprivation than for income poverty.

We focus on the absolute change in risk for the same reasons we focused on the absolute differences between social risk groups in the earlier chapters. We do this because the absolute change is more consequential in terms of the impact on people's lives and, hence, more relevant to policy, as we argued in the previous chapter.

We begin by looking at the overall change in deprivation and poverty (in either wave) between 2005 and 2014 for the different social risk groups, asking whether some were more affected than others by the recession. Next, we turn to the absolute change in the social risk gap by country for material deprivation and income poverty measured across two waves.

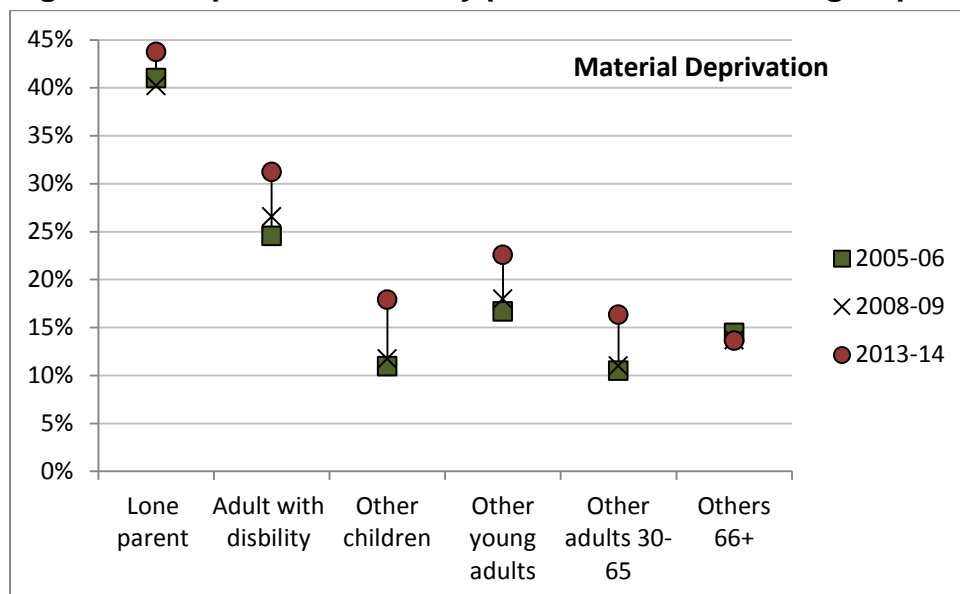
### 5.1 Change over time by social risk group

In Figure 5.1 we show the rate of being deprived in either wave for the different social risk groups in 2005-06, 2008-09 and 2013-14. The figures are weighted within country by population characteristics but each country is given equal weight so that the rates represent the average across countries. We use a less detailed breakdown of social risk groups here, combining children with parents in the lone parent and disability categories, because of the smaller number of cases when broken down by both period and category (See Appendix Table A5.1 for the number of cases).

Apart from older adults and lone parents where the change over time was not statistically significant, deprivation increased for the other social risk groups. Most of

the change took place between 2008-09 and 2013-14, that is, between early recession and early recovery. The rate in 2005-06 had been lowest for other adults aged 30-65 and other children. In 2013-14, however, the lowest rate was for older adults whose levels of deprivation changed least in the recession.

**Figure 5.1 Deprivation rates by period and social risk group**



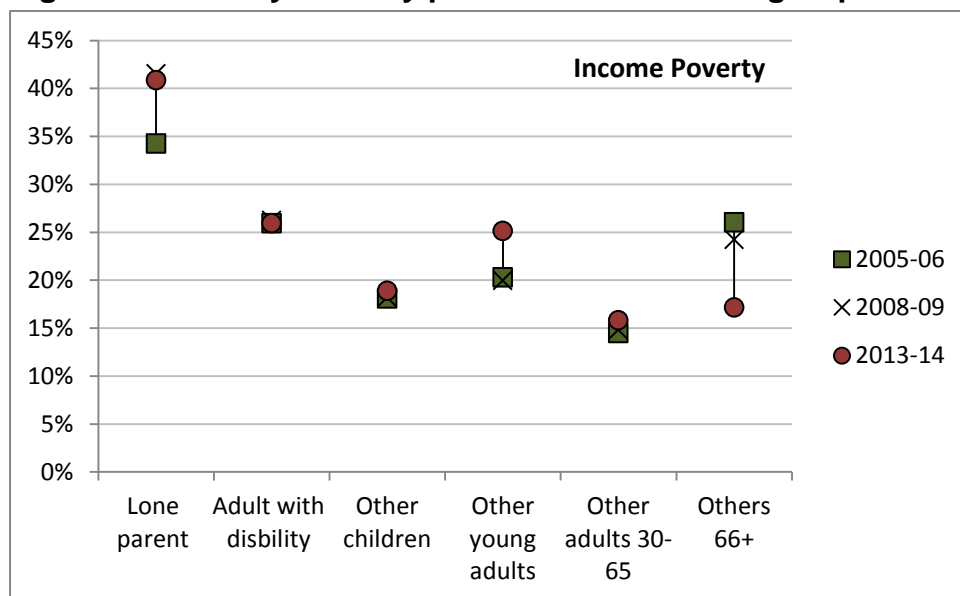
Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Deprivation in either wave. N cases= 482,791.

Overall, there is no evidence of polarisation in terms of the absolute change over time. A polarisation of risk implies that the rate would increase more for the two vulnerable groups, lone parent families and families affected by working-age disability. Instead, there was no significant change for lone parents but an increase of about seven percentage points for the reference group of other adults aged 30-65. The increase for adults with a disability was about 6 percentage points on average, with a similar magnitude of increase for young adults.

Figure 5.2 shows the corresponding figures for income poverty. Again, we focus on poverty in either wave and take the average across the eleven countries. As we anticipated, the changes over time in income poverty are not as clear in reflecting the impact of the recession. We saw no evidence of polarisation in the case of deprivation. The picture is more mixed for income poverty. There was a significant increase in poverty over time for lone parents and young adults, a small but significant increase for the reference group of adults aged 18-65 and a fall for older adults. The increase for lone parents and for young adults was significantly larger

than the increase for the reference group. There was no significant increase for adults with a disability. There is some evidence of polarisation, therefore, for lone parents and young adults but not for working age adults with a disability.

**Figure 5.2 Poverty rates by period and social risk group**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Poverty in either wave. N= 490,216.

In the case of deprivation, most of the change occurred between the early recession and early recovery, capturing the full force of the recession. In the case of income poverty, the timing of the change varied by social risk group: for lone parents most of the change had taken place by the early recession while for young adults, most of the change took place during the recession.

### 5.1.2 Polarisation and Convergence

Before moving to the discussion in the next section which involves comparing groups in eleven countries, it is worth clarifying what we mean by polarisation and convergence in this discussion. Recall that the social risk gap is the difference between the rate for the vulnerable group and the rate for the reference group. In the last chapter, we argued that the difference (vulnerable group rate minus the reference group rate) was more relevant than the ratio (vulnerable group rate divided by the reference group rate) in a context where the rate for the reference group is very low in some countries.

- Polarisation, as noted above, refers to an increase in the social risk gap over time. It means the gap in 2013/14 minus the gap in 2005/06 is greater than zero.
- Convergence refers to a *reduction* in the social risk gap over time. It means the gap in 2013/14 minus the gap in 2005/06 is less than zero.

Table 5.1 shows the calculation of the change between the two time periods in the social risk gap based on the figures underlying Figure 5.1 and Figure 5.2. For instance, lone parents had a material deprivation rate of 41 per cent in 2005-06 and 44 per cent in 2013-14, compared to figures of 10 per cent and 16 per cent, respectively, for the reference group of other adults aged 30 to 65.

**Table 5.1 Calculating change between 2005-06 and 2013-14 in social risk gap**

	Rate		Social Risk (SR) Gap		Change in SR Gap
	2005-06 %	2013-14%	2005-06	2013-14	
<b>Material Deprivation</b>					
Lone parent	41%	44%	31%	27%	-3%
Adult with disability	25%	31%	14%	15%	1%
Other children	11%	18%	0%	2%	1%
Other young adults	17%	23%	6%	6%	0%
Other adults 30-65	10%	16%	---	---	---
Others 66+	14%	14%	4%	-3%	-7%*
<b>Income Poverty</b>					
Lone parent	34%	41%	20%	25%	5%*
Adult with disability	26%	26%	11%	10%	-1%
Other children	18%	19%	4%	3%	-1%
Other young adults	20%	25%	6%	9%	3%*
Other adults 30-65	14%	16%	---	---	---
Others 66+	26%	17%	12%	1%	-10%*

Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Deprivation /poverty in either wave. N= 482,791 (deprivation) and 490,216 (poverty). \* indicates change in social risk gap statistically significant (at  $p \leq 0.05$ ).

The social risk gap is the difference in material deprivation rates for the vulnerable group and the reference group, giving 31 per cent in 2005-06 and 27 per cent in 2013-14 for lone parents. The change in the social risk gap is the difference between these two figures, or minus 3 percentage points (with rounding) in the case of deprivation for lone parents. This figure was not statistically significant, indicating stability rather than polarisation for lone parents compared to the reference group. In

fact, the only group for whom the social risk gap in deprivation changed significantly was older adults and the gap narrowed over time. In fact, this group moved from having a higher deprivation and poverty rate than the reference group at the beginning of the period to a rate that was lower (material deprivation) or about the same (income poverty) post-recession.

There is some evidence of polarisation for lone parents when it comes to income poverty: the social risk gap associated with lone parenthood increased by five percentage points over the period. The social risk gap in poverty also increased for young adults but decreased significantly for older adults.

## **5.2 Country differences in change between 2005 and 2014**

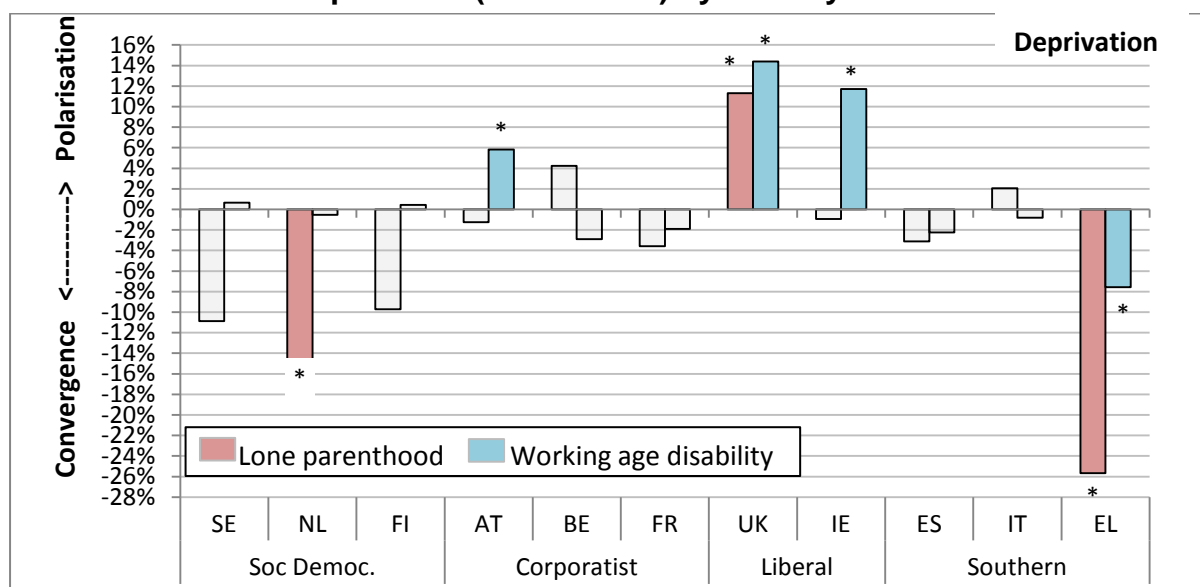
We now consider the differences between countries. We begin by examining deprivation in either wave. Figure 5.3 shows the change between the two time periods for the two most vulnerable social risk groups by country. With the smaller sample sizes here, particularly for lone parents in the Southern countries, many of the differences will not be statistically significant (see Appendix Table A5.2 for the underlying table). The significant changes in the social risk gap are indicated in the chart by an asterisk and solid bars. Transparent bars are used in the chart to indicate the non-significant patterns. For instance, the change over time compared to the reference group was not statistically significant in Sweden for either lone parents or those with a disability. In fact, the social risk gap did not change significantly for either vulnerable group in six of the eleven countries (Sweden, Finland, Belgium, France, Spain and Italy).

There are clear differences across the countries in the change between the two periods, especially for lone parents. In the Netherlands and Greece there was evidence of substantial convergence (a reduction in the social risk gap) while there was evidence of polarisation in the UK (an increase in the social risk gap). For working-age adults with a disability and their children, there was evidence of polarisation in Austria, the UK and Ireland and evidence of convergence in Greece.

Convergence, or narrowing of the social risk gap, can occur for two very distinct reasons and this is illustrated by the contrasting situations in the Netherlands and

Greece. Convergence can occur because the risk of deprivation falls for the vulnerable group: this is a ‘good news story’. This is close to what happened in the Netherlands in the period for material deprivation. The risk for lone parents fell substantially (from 43 per cent to 31 per cent) while there was a small increase for the reference group (from 5 to 7 per cent; see Appendix Table A5.2). On the other hand, convergence might arise where both groups experience a worsening of risk but the increase in deprivation is greater in absolute terms for the reference group. This is what happened in Greece in the period. It was mainly a ‘bad news story’: there was a modest reduction in the extremely high risk of material deprivation for lone parents (from 61 per cent to 56 per cent) but the main driver of the convergence was the very substantial increase in risk for the reference group (from 23 to 44 per cent).

**Figure 5.3 Change between 2005-06 and 2013-14 in the social risk gap in material deprivation (either wave) by country**



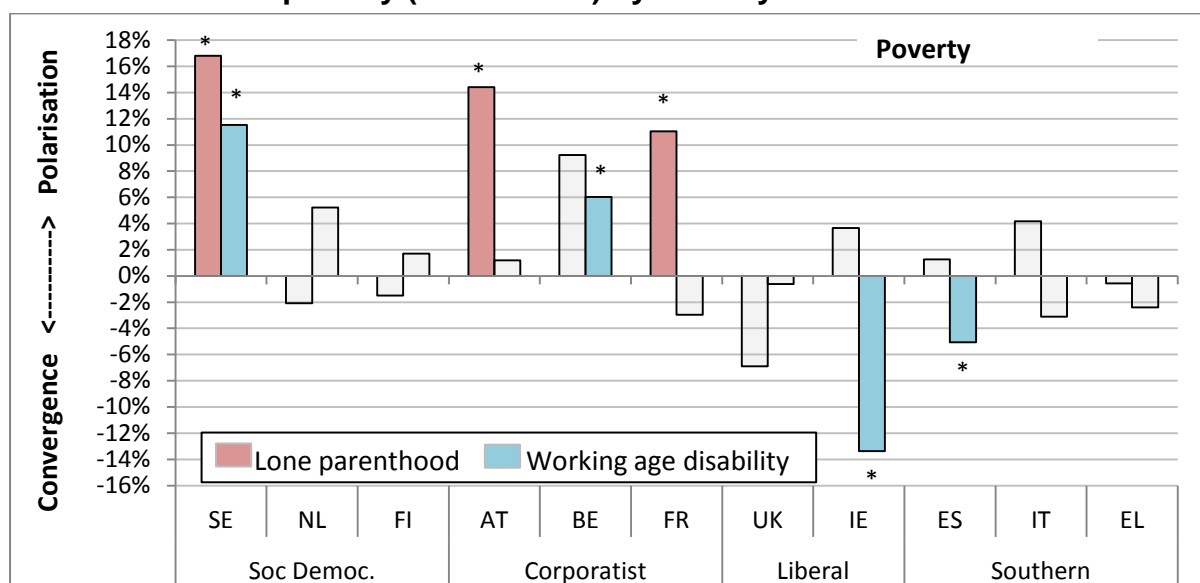
Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Deprivation refers to deprivation in either wave. The social risk gap is the difference in deprivation risk between the reference group (other adults aged 30-65) and the vulnerable groups (those affected by lone parenthood or working age disability). \* indicates statistically significant change in social risk gap.

In Figure 5.4 we turn to the corresponding figures for income poverty (see Appendix Table A5.3 for the underlying figures). The picture of change in the social risk gap in poverty between 2005-06 and 2013-14 is quite different to the pattern observed for material deprivation.

First, there is no evidence of polarisation in either of the two Liberal countries for lone parenthood or working-age disability. Indeed, in Ireland, the gap associated with

working age disability significantly narrowed in the period (by about 13 percentage points). There is evidence of polarisation in income poverty in Sweden for both lone parenthood and working-age disability (17 percentage points and 12 percentage points, respectively). There is also a pattern of polarisation in Austria and France for lone parenthood and in Belgium for adult disability. There is also a pattern of polarisation in Austria and France for lone parenthood and in Belgium for adult disability. In Spain, the social risk gap associated with working-age disability has narrowed significantly.

**Figure 5.4: Change between 2005-06 and 2013-14 in the social risk gap in income poverty (either wave) by country**



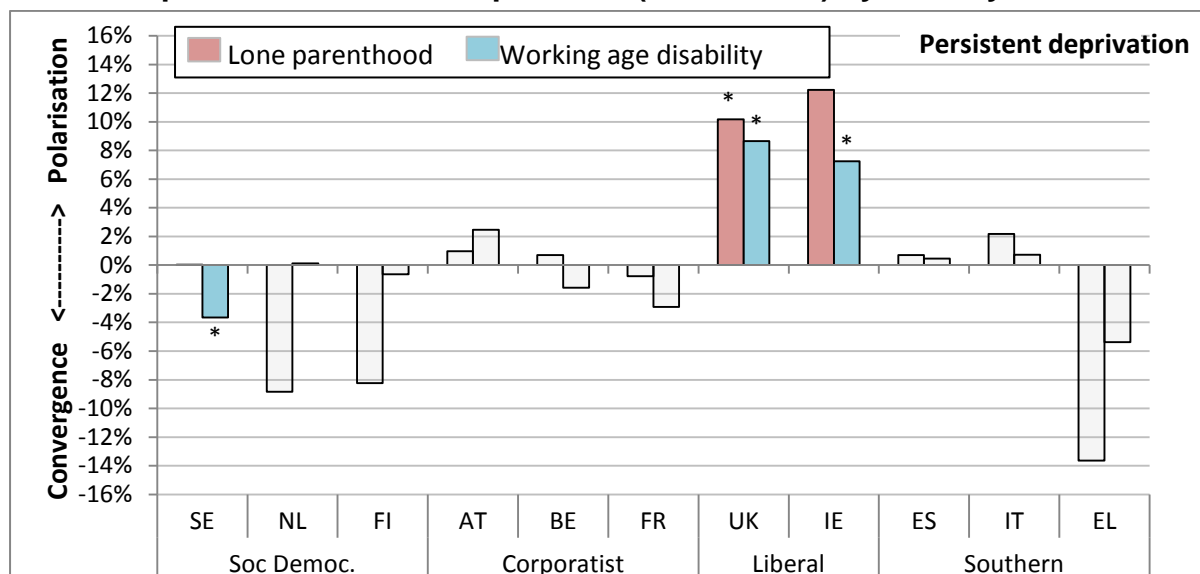
Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Poverty refers to poverty in either wave. Social risk gap is the difference in poverty risk between the reference group (other adults aged 30-65) and the vulnerable group (those affected by lone parenthood or working age disability). \* indicates statistically significant change in social risk gap.

### 5.3 Country differences in change in persistent poverty and deprivation

We saw above that in terms of deprivation in either wave, there was some evidence of polarisation in the Liberal countries. When we focus on persistent deprivation, as shown in Figure 5.5, evidence of polarisation in the Liberal countries is even clearer, with a significant increase in the social risk gap associated with both lone parenthood and working-age disability in the UK and Ireland. There is also a modest (-4 percentage points) but statistically significant reduction in the social risk gap associated with disability in Sweden (see Appendix A5.4 for the underlying table).



**Figure 5.5 Change between 2005-06 and 2013-14 in the social risk gap in persistent material deprivation (both waves) by country**



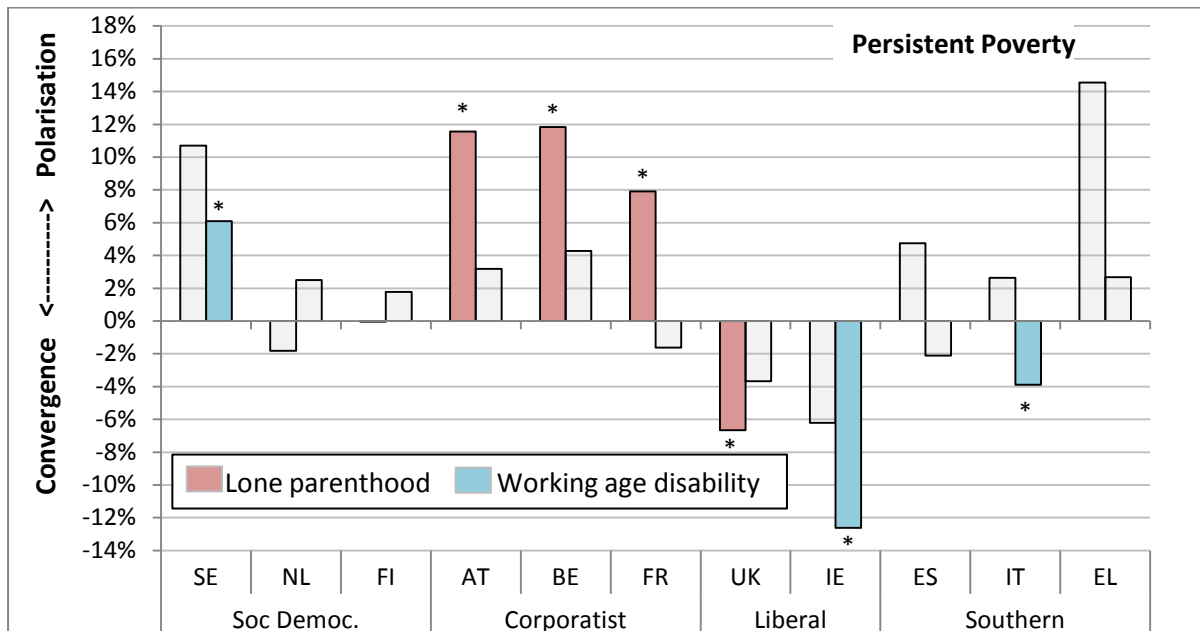
Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Persistent deprivation refers to deprivation in both waves. The social risk gap is the difference in persistent deprivation risk between the reference group (other adults aged 30-65) and the vulnerable group (lone parents and working age adults with disability). \* indicates statistically significant change in social risk gap.

Figure 5.6 shows the corresponding figure for persistent income poverty. As we saw above when focusing on poverty or deprivation status in either wave, the pattern is very different from that found for material deprivation. We see some evidence of convergence in the UK (for lone parents) and Ireland (for working-age adults with a disability). We also see a tendency towards polarisation in countries across very different regimes, such as Sweden, Austria, France and Belgium. There is a small reduction in the social risk gap associated with disability in Italy, that is statistically significant because of the very large sample size in this country (See Table 2.1).

There are contrasting patterns for persistent income poverty and persistent deprivation in the UK and Ireland, then: there is evidence of polarisation in the case of material deprivation and evidence of convergence in the case of income poverty. Undoubtedly part of the explanation for this paradoxical finding is the strange behaviour of the income poverty rate during the recession. With falling incomes, a household with little income change might find itself no longer poor simply because their income is now above the threshold. The improvement with respect to the income poverty line is only an artefact of the behaviour of relative income poverty in a period of very rapidly changing incomes. In this circumstance, direct measures of

living standard, such as the material deprivation indicator, are likely to provide a better picture of the actual experiences of households.

**Figure 5.6 Change between 2005-06 and 2013-14 in the social risk gap in persistent income poverty (both waves) by country**



Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors. Countries are weighted equally. Persistent poverty refers to poverty in both waves. The social risk gap is the difference in persistent poverty risk between the reference group of other adults aged 30-65 and the vulnerable groups (those affected by lone parenthood and working-age disability). \* indicates statistically significant change in social risk gap.

### 5.4 Summary

In this chapter our focus was on the impact of the recession and our third research question on whether the recession resulted in a polarisation of risk with the vulnerable groups experiencing a greater deterioration in deprivation and poverty. We drew on the idea of the social risk gap that we developed in the previous chapter – as the gap between vulnerable groups (those affected by lone parenthood or working age disability) and the reference group (others aged 30-65). We operationalised polarisation as an increase over time in the social risk gap while a reduction over time in the social risk gap is what characterises convergence.

Before looking at country differences, we saw that there was no overall evidence of polarisation for material deprivation but some evidence of polarisation for income poverty, but only for lone parents.

The differences across countries in material deprivation pointed to some evidence of polarisation in the Liberal countries for material deprivation, especially for persistent material deprivation. The results were more mixed for income poverty, with evidence of polarisation found in certain Social democratic and Corporatist countries, but not in the Liberal countries. In fact, there was a significant reduction in the social risk gap in poverty for people with a disability in Ireland – found for both persistent income poverty and poverty in either of the two waves -- and in persistent poverty for lone parents in UK.

In sum, there is some support for the idea of the polarisation of the social risk gap in material deprivation in the Liberal countries but the changes in income poverty point towards convergence in the Liberal countries. The difference in the patterns for material deprivation and poverty are linked to the very different behaviour of these two indicators as the countries went through the recession. The material deprivation indicators were linked to the same sets of good and services across the period and people's ability to afford these goods and services was eroded by the recession. Income poverty was measured with respect to the poverty line linked to median income in the country. With the general fall in incomes, the income poverty rate did not reflect the deterioration in household circumstances in this period of very rapid social change.

It is worth noting that the analysis here revealed that convergence – or a narrowing over time in the social risk gap – can be a 'good news' story if things improve for the vulnerable group (as we saw in the case of deprivation for the Netherlands) but that this is not necessarily the case. The social risk gap might narrow in a situation where circumstances change very little for the vulnerable group but there is a greater deterioration for the reference group (as we saw for deprivation in Greece). Similarly, polarisation could occur in the presence of an improvement in the situation of a vulnerable group if the situation improved even more for the reference group. This points to the importance of understanding how the polarisation or convergence came about and the implications in practical terms for the living standards of vulnerable groups.

## Chapter 6: Discussion and Implications

### 6.1 Introduction

In this report we drew on the longitudinal EU-SILC data to examine differences between social risk groups in material deprivation and income poverty. Social risk groups are groups that face different levels of difficulty in meeting their resource needs through the traditional pillars of market and family: lone parents and their children, working age adults with a disability and their children, young adults (aged 18-29), other children, older adults and (the reference group with fewest difficulties), other adults aged 30-65.

The analysis went beyond a description of the differences between social risk groups to examine how these differences are conditioned by the different welfare regimes and how they were affected by the recession. Specifically, we addressed three research questions:

1. Do we find higher risks of poverty (and greater persistence of poverty) among the same social risk groups in all countries?
2. Is the 'social risk gap' – the difference in poverty and deprivation across groups – smaller in Social democratic countries?
3. Did the recession lead to polarisation between high-risk and low-risk groups?

We included eleven countries in the analysis: three countries from the Social democratic regime that emphasises universalism, redistribution and a general provision of services (Sweden, Finland and the Netherlands); three countries from the Corporatist regime where entitlements are linked to employment (Austria, Belgium and France); two Liberal countries that emphasise provision through the market with the state providing highly targeted and means-tested benefits (Ireland and the UK); and three countries from the Southern Regime which places a strong emphasis on the family as the main provider of welfare (Italy, Spain and Greece).

We examined data from three periods, taking a pair of waves from each: 2005-2006 was a period of economic growth; 2008-2009 marked the beginning of the recession and 2013-14, the early recovery period. The analysis included individuals who were present in a household in both waves of each pair. We limited the longitudinal analysis to two waves in order to minimise the problems of attrition: a reduction in

sample size and potential non-representativeness of the longitudinal cases. Because we include just two waves, the definition of persistent deprivation (or poverty) here is in terms of being in that state for two consecutive waves.

## **6.2 Background on the Countries and the Period**

It is worth noting that the countries included in the analysis had very different experiences with the recession over the period. Focusing on the unemployment rate as a key indicator of the capacity of individuals and families to meet their needs through the market, three countries stand out. Spain and Greece experienced very sharp increases in unemployment levels in the period from initial levels that were already the highest across the eleven countries. Ireland experienced a very sharp increase from a level of unemployment which had been among the lowest across the eleven countries pre-recession.

These experiences are reflected in the changes over time in material deprivation, with very sharp increases in Greece from a level already high pre-recession; sharp increases in Ireland from a median level across the eleven countries pre-recession; and a substantial, though less dramatic, increase in Spain, perhaps moderated by familial supports in this country. Italy also experienced a sizeable increase in material deprivation, on a par with Ireland from 2010 onwards, though beginning from a higher figure pre-recession.

The impact of the recession is less clear in the income poverty trends. This is because income poverty is measured against the median income in the country. The countries that were worst affected by the recession had a fall in the poverty threshold as median incomes fell. As a result, income poverty does not capture as well as deprivation the falling standard of living of households in these countries. The income poverty rate rose markedly in Greece and Italy, but the change was more muted in Ireland and Spain. In contrast to their relatively stable and low levels of material deprivation, the Social democratic countries experienced an increase in income poverty with upward nudges in 2005-06, 2010-11 and 2013-14.

Most of the increase in deprivation happened during the course of the recession – or even late in the recession – rather than at the very start in 2008-09. This is

consistent with households maintaining their standard of living by drawing on accumulated resources in the early recession but curtailing consumption later as resources are eroded. The longitudinal data showed a substantial rise in persistent deprivation (from 7 per cent to 10 per cent) in the period. By 2013-14 the beginning of recovery was evident in a percentage exiting material deprivation (6 per cent) that was a little higher than the percentage entering deprivation (5 per cent). The rate of persistence for income poverty was higher than the rate for material deprivation, especially early in the period (at about 9-10 per cent for income poverty in 2013-14 compared to 7 per cent for material deprivation). In the two earlier periods, the percentages exiting poverty were a little higher than the percentages entering poverty. By the third period (2013-14) the two rates were very similar.

### **6.3 Deprivation and Poverty by Social Risk**

Two groups stood out as having substantially higher levels of material deprivation: those in lone parent families and, at some distance, those in families of working age adults with a disability. Taking the average across the eleven countries and the three time periods, and considering deprivation in either of the two waves, the rate of material deprivation was 43 per cent for lone parents, considerably ahead of the next highest level at 28 per cent for working age adults with a disability. Both of these groups had levels that were well above the 13 per cent for other adults aged 30 to 65. The rates for children within these broad groups (lone parenthood, working-age disability, other) were very similar to the rates for adults in the same group because deprivation is measured at the household level and there is no strong family size effect (beyond three children) which would affect more children than adults.

The other group that had a higher rate of deprivation than the reference group was other young adults, at 19 per cent. The rates were lowest and very close together for the reference group of adults aged 30-64, other children and older adults (13 to 14 per cent).

The pattern for income poverty was similar in that lone parents and working age adults with a disability had the highest rates of being poor in either wave (38 and 26 per cent, respectively) compared to 15 per cent for other adults aged 30-64. In third place, again, were young adults (22 per cent), but this time they were tied with older

adults (also 22 per cent). The position of older adults looks more disadvantaged when it comes to income poverty than when it comes to material deprivation. One reason for the divergence in the case of older adults is that although this group may have low incomes, many of their costs (particularly housing) are lower and they are more likely than younger adults to have accumulated savings.

The ratio of deprivation to poverty was higher for the vulnerable groups. For instance, the ratio was 1.11 for lone parents and 1.09 for working age adults with a disability compared to 0.84 for other adults aged 30-65. The higher ratio for vulnerable groups may reflect greater difficulty in translating resources into desired goods and services or greater needs than poverty equivalence scales allow for. This is akin to what Sen refers to as differences in the 'conversion factor' between groups (1992; 2009). As Sen stresses, one of the primary reasons why resource-based measures prove inadequate in capturing capabilities is because people may have different needs which means that they may require different levels of resources in order to achieve the same outcomes. As Sen puts it, different 'conversion' factors are involved.

The ratio of material deprivation to poverty is lowest for older adults (at 0.62). The lower ratio may be understood in terms of older adults having lower housing-related costs, lower work-related expenses and having accumulated savings.

Persistent material deprivation and income poverty is understood here as being in a household that is deprived or poor in two consecutive waves. We observed the same general pattern across groups as being deprived or poor in either wave. The persistent material deprivation rate was 24 per cent for lone parents, 14 per cent for working age adults with a disability, 9 per cent for other young adults and 5 per cent for the reference group of other adults aged 30-65.

Persistent poverty rates ranged from 23 per cent for lone parents, through 13 per cent for working age adults with a disability, 10 per cent for young adults and 7 per cent for other adults aged 30-64. The persistent poverty rate for older adults was relatively high, at 13 per cent it was about the same level as the rate for working age adults with a disability.

## 6.4 Country differences in the social risk gap

In Chapter 4 we examined similarities and differences across countries in the association between social risk groups and levels of deprivation and poverty. Our expectation was that the same groups, especially lone parents and working age adults with a disability, would show a higher level of deprivation and poverty across countries, but that the gap between these vulnerable groups and the reference group would be lower in Social democratic countries. In considering the patterns by country, we combined children and adults within the high risk groups (lone parent families and families affected by working age disability) to maximise the number of cases.

There were substantial differences between countries in the underlying levels of deprivation. Considering being deprived in either of two consecutive waves, taking the average across the three periods and focusing on the reference group of other adults aged 30-65, the rates ranged from 3 to 7 per cent in the Social democratic countries, 9 to 12 per cent in the Corporatist countries, 9 per cent in the UK and 16 per cent in Ireland and 15 to 19 per cent in the Spain and Italy and with Greece a clear outlier at 31 per cent. Across all countries, the highest material deprivation rates were found for the same two social risk groups, lone parents and working age adults with a disability. The material deprivation rates ranged from 23 to 56 per cent for lone parent families and from 15 to 49 per cent for families affected by working age disability. The next highest rates were for young adults (7 to 39 per cent), though the rate was about the same for older adults in Greece. In the other countries, the material deprivation rate for older adults tended to be about the same as for the reference group of other adults aged 30-65. Ireland and the UK stood out in having lower deprivation rates for older adults.

Examining the differences for income poverty, the highest rate in all countries was found for lone parents with rates ranging from 25 to 50 per cent. The pattern across other groups varied more by country for income poverty than it did for material deprivation, however. While the second highest figures were found for working age adults with a disability in most countries, the rate for young adults was very close to the rate for this group in France, Italy and the Netherlands and was slightly higher in Sweden and Finland. In addition, the gap between young adults and others aged



30-65 was smaller than elsewhere in Spain and Ireland. In general, there were more differences across countries in the relative position of the other four groups (young adults, other children, other adults aged 30-65 and older adults) in terms of income poverty than in terms of deprivation.

In examining the pattern across countries, we found it useful to draw on regime theory in order to frame our thinking about the kinds of differences we might expect. We expected that the generally higher levels of social support in Social democratic countries combined with state provision (or subsidy) of services would reduce the inequalities across social risk groups. We examined the social risk gap, that is, the difference between the deprivation (or poverty) rate of the reference group (other adults aged 30-65) and the rates associated with lone parenthood and disability. We anticipated that the social risk gap in poverty would be smaller in the Social democratic countries.

Contrary to expectations, we found that the social risk gap was not appreciably smaller in the Social democratic countries than in the Corporatist countries. On the other hand, the gap tended to be noticeably larger in the two Liberal countries: the UK and Ireland. This pattern was clearer for deprivation, especially persistent deprivation, than for income poverty.

In fact, it is striking that the same two groups – lone parents and working-age adults with a disability -- emerged as experiencing higher poverty rates across very different types of welfare system. This suggests that none of the systems are particularly successful at addressing the particular barriers faced by these groups, and that the Liberal systems may be worse in this respect. As we suggested in Chapter 1, these groups can be understood as facing barriers to accessing the market due to factors that are personal, family or social convention.

### **6.5 Change over time – polarisation or convergence by social risk?**

Apart from looking at the gap at a point in time, we went on to examine the change in the gap with the recession and ask whether this differed by regime. As noted above, the recession varied in its impact across countries, with particularly sharp rises in unemployment in Greece, Spain, Italy and Ireland. We expected that because of the

additional barriers they face to labour market access, lone parents and working age adults with a disability might experience a larger deterioration in their circumstances during the recession than the reference group of other working-age adults aged 30 to 65.

On average across the eleven countries, we saw an increase in material deprivation between 2005 and 2014 for all social risk groups except older adults, where the rate remained relatively stable. Most of the increase in deprivation happened during the course of the recession rather than in the first years of the recession (2008-2009). The percentage point increase in material deprivation compared to other adults aged 30 to 65 was smaller for lone parents and about the same for working age adults with a disability. So there was no evidence of polarisation here.

The changes over time in income poverty were not as clear in reflecting the impact of the recession. This is because income poverty is measured against median incomes and median incomes themselves fell. On average across the eleven countries, there was little change for the reference social risk group, a substantial fall for older adults a sizeable increase in risk for lone parents but essentially no change for working age adults with a disability. There is some suggestion of an increase in the social risk gap for lone parents in terms of income poverty, then, but not for working age adults with a disability.

In order to test our hypothesis, we needed to compare the change in the social risk gap between 2005-06 and 2013-14. Recall that the social risk gap is the difference in poverty rate between the vulnerable group and the reference group. We anticipated that the social risk gap would increase over time. We focused on the absolute percentage point difference in the social risk gap between 2005-06 and 2013-14. We also looked at country differences in the change in the social risk gap.

First, taking the average change in the social risk gap across countries, we saw that there was no evidence of polarisation for material deprivation but some evidence of polarisation for income poverty, but only for lone parents. In other words, the gap in material deprivation between the two vulnerable groups (lone parents and working age adults with a disability) and the reference group (other adults aged 30-65) did

not increase over time. However, the gap in income poverty between the reference group and lone parents did increase.

Turning to the country differences, again it was the Liberal countries that stood out but the pattern of change over time differed for material deprivation and income poverty. The social risk gap in material deprivation (the gap between the vulnerable groups and the reference group) widened in the UK and Ireland, suggesting polarisation of risk across groups. These patterns were even clearer for persistent material deprivation. On the contrary, for income poverty, where the change in the social risk gap was significant for the Liberal countries, it suggested convergence rather than polarisation.

The conclusions we would draw about whether the recession in Ireland and the UK led to a polarisation or convergence of risk across social risk groups would differ depending on whether we focus on deprivation or poverty. The pattern for material deprivation suggests polarisation while the pattern for income poverty suggests convergence.

The difference in the findings for material deprivation and poverty are linked to the very different behaviour of these two indicators in the recession. The material deprivation indicators are based on the same sets of goods and services across the period and people's ability to afford these goods and services was eroded by the recession. Income poverty was measured with respect to the poverty threshold linked to median income in the country. With the general fall in incomes, the income poverty rate reflected the relative position of different groups, but did not do as good a job at capturing absolute shifts in living standards. In fact, the changes in income poverty across the period were very modest for the reference group. The falling poverty threshold was at least partly responsible for the reduction in poverty observed for the vulnerable groups in the Liberal countries. Given the problems in using income poverty to track change over time in a period of rapidly changing incomes, the material deprivation indicator probably provides a better picture of the experience of households.

Before leaving the issue of polarisation and convergence it is worth noting that polarisation is not necessarily 'bad news' and convergence is not necessarily 'good

news' for the vulnerable groups. Convergence – or a narrowing over time in the social risk gap – can be a 'good news' story if things improve for the vulnerable group (as we saw in the case of deprivation for the Netherlands) but the social risk gap might also narrow in a situation where circumstances change very little for the vulnerable group but deteriorate for the reference group (as we saw for deprivation in Greece). Polarisation – or a widening of the social risk gap – could occur if the situation improves for the vulnerable group but improves by a greater amount for the reference group. This points to the importance of understanding how the polarisation or convergence came about and the implications in practical terms for the living standards of vulnerable groups.

## **6.6 Limitations and further research**

As with any piece of research, there were some issues not addressed here that could usefully be examined in future research. We restricted our focus to just two waves in order to avoid problems associated with attrition, such as reductions in sample size and potential lack of representativeness to the extent that attritions is linked to the issues we studied here. The feasibility of analysing patterns over three or four waves would depend on the countries chosen (some have particularly high attrition rates), on the sizes of the subgroups and on careful robustness checks to assess any impact of attrition.

In this analysis, we focused on the differences between social risk groups and variation in these patterns across countries and over time. It would be informative to assess the extent to which country differences were linked to different educational or social class profiles of the vulnerable groups, such as lone parents or working age adults with a disability. In particular, it would be informative to examine whether the growing economy as Ireland moves to a recovery phase has the result of closing the social class gap in deprivation to a greater extent than closing the social risk gap.

We saw that the shifting poverty threshold as median incomes fell with the recession meant that we could not rely on income poverty to trace the impact of the recession on household material wellbeing. One way to counter this would be to examine poverty anchored in time: that is comparing household equivalised income to a poverty threshold that is held constant (apart from adjustments for inflation) across

the period. This was not done in the present report, but such an exercise would usefully complement the analysis conducted here. We would expect the results to be much more consistent with those reported here for material deprivation.

One of the consequences of the recession in Ireland was a collapse in the property market with the result that there is a serious under-supply of housing post-recession and housing costs are rapidly approaching boom levels (Duffy and FitzGerald, 2012; McQuinn et al, 2017). The impact of housing costs on the living standards of families who are entering the market, either as renters or buyers, could usefully be compared across countries.

We have not conducted a detailed examination of the factors accounting for persistent poverty here since the goal was to discern country differences in the pattern across social risk groups. There is scope to examine the role of factors such as low levels of education and migrant experience. This exercise is particularly important as low levels of education may be linked to becoming a lone parent or to developing health problems that lead to disability as well as to an increased risk of persistent poverty.

Finally, as with all results based on nationally representative samples of the population living in private households, certain small but particularly vulnerable groups are either not included in the data (the homeless) or are not present in the sample in sufficient numbers to be identified separately (Travellers and Roma). An analysis of the persistence of homelessness and of the circumstances of numerically small ethnic groups would require a different approach than that adopted here.

## **6.7 Policy discussion**

The approach taken in this report was to provide a very general overview of how social risk groups fared across countries and over time. We did not provide a detailed account of policy in the eleven countries or of changes in this policy between 2005 and 2014. As a result, we can offer general lessons for policy but no specific policy recommendations.

The impact of the recession across the countries varied not only in terms of the different nature and intensity of the economic downturn experienced but also in the manner each welfare system operated. The policy responses to the crisis varied across countries and the countries that had initially a very strong welfare state were much more effective in moderating the impact of the recession, as we saw with the overall level of material deprivation in Social democratic countries in Chapter 2 ( see also Jenkins et al, 2013).

The cross-national comparisons showed that the countries with the lowest overall poverty rates do not necessarily also show a lower social risk gap between the vulnerable and advantaged groups. The Social democratic countries had the lowest deprivation rate overall, but the social risk gap was not noticeably smaller in these countries than in the Corporatist countries and, in looking at change over time, they did not appear to do a better job at protecting the most vulnerable social risk groups. Lone parents and working-age adults with a disability tend to do better in these countries than in other countries, but the protection is general – affecting the whole population – and not specific to the vulnerable groups. This is likely to be because the Universalist approach to welfare protects the population in general from poverty but without necessarily closing the gap between social risk groups.

On the other hand, the Liberal countries stood out in a number of respects. These countries place greater emphasis on means-tested, targeted cash transfers than on a mix of universalist benefits and service provision. As a result, their performance looks more favourable when we focus on income-based measures than when we look at direct measures of living standards. We can arrive at divergent conclusions depending on whether we focus on direct measures of living standards or relative measures of income poverty. The direct measure of material deprivation showed a larger social risk gap overall and an increase in this gap over time in the Liberal countries. This suggested that the level of disadvantage experienced by vulnerable groups (especially lone parents and especially for persistent deprivation) was greater than in other welfare regimes, particularly towards the end of the period. On the other hand, there was some mixed evidence of convergence in the Liberal countries when we focused on income poverty.

There are substantial differences between countries in how social risk groups fare and in how their circumstances changed over time. Some of the difference may be due to differences in social protection policy. However, the patterns we observed did not clearly support our initial expectations of better protection for vulnerable groups in the Social democratic countries, either at a point in time or in term of changes over time. Understanding what matters in policy terms clearly requires further detailed analysis – controlling for the market power of the different social risk groups – especially their education, employment and occupational profile – and the economic context of the countries as well as the mix of social protection policies and other services in areas such as health, education, public transport and housing.

We also saw the importance of lone parenthood and working age disability in accounting for the higher poverty rate of children, compared to adults, in many countries, as we saw for earlier research on Ireland (Watson et al., 2016b). The gap between ‘other working age adults’ and ‘other children’ is much smaller than the gap between all adults and children, including those in lone parent families and families of working-age adults with a disability. A higher proportion of children than of adults lives in households affected by lone parenthood and by working-age disability. The higher risk of deprivation and poverty of these two groups needs to be addressed in order to close the gap in poverty risk between life cycle stages. Policies targeting all children may not be the most effective or efficient in reducing child poverty.

A focus on questions of polarisation or convergence in examining change over time can lead to important nuances being overlooked. In Chapter 5, we found contrasting patterns for persistent income poverty and persistent deprivation in the UK and Ireland. There was evidence of polarisation in the case of material deprivation and evidence of convergence in the case of income poverty. Undoubtedly part of the explanation for this paradoxical finding is an artefact of the behaviour of the relative income poverty indicator in a period of rapidly changing incomes. With falling incomes, and a falling income poverty threshold, a household might find itself no longer poor (with no change in its income) if the threshold falls below its income level. In this circumstance, direct measures of living standard, such as the material deprivation indicator, are likely to provide a better picture of the actual experiences of households. This reinforces the importance of looking closely at what is driving the apparent polarisation or convergence. We tend to think of polarisation as bad and

convergence as good. However, convergence is not a good news story if it is caused by a deterioration in the situation of the reference group but with no improvement in the circumstances of the vulnerable group. Polarisation may hide a good news story if what is happening is an improvement for all groups but with a more rapid improvement for the initially more advantaged group.

In terms of poverty measurement, there are two points worth emphasising. The first is to reinforce the usefulness of cross-sectional data as a tool to inform policy. There is always a danger that there might be important differences between the groups most at risk of persistent poverty and those with a higher level of poverty at a point in time, because of short-term movements into and out of poverty. We found here that, at least in the case of social risk groups, those with the highest cross-sectional deprivation and income poverty risk are also the groups with the highest persistent deprivation and income poverty risk. Lone parent families and families of working-age adults with a disability stood out as being particularly vulnerable in all countries. Not only did these groups have higher rates of material deprivation and poverty at a point in time and higher rates of persistent deprivation and poverty, but the level of persistence was greater. At least in this time period and for this set of countries, a focus on cross-sectional poverty rates would not result in a mis-identification of the groups most affected by poverty.

The second lesson on poverty measurement is the importance of having multiple indicators of social exclusion. Because of shifts in the poverty threshold with the recession, income poverty rates did not perform well in tracking changes in the material circumstance of households over time. The material deprivation indicator proved important in tracing the changing material wellbeing of households in this period of dramatic economic shifts. We anticipate that the rising incomes as countries move into recovery might lead to relative stability in the income poverty rate but a fall in material deprivation. This is indeed what we saw in the Irish data in 2015 and 2016 (CSO, 2017). As incomes rise, the poverty threshold rises so that even if households are a little better off (and deprivation levels fall), the income poverty measure does not necessarily reflect this improvement.



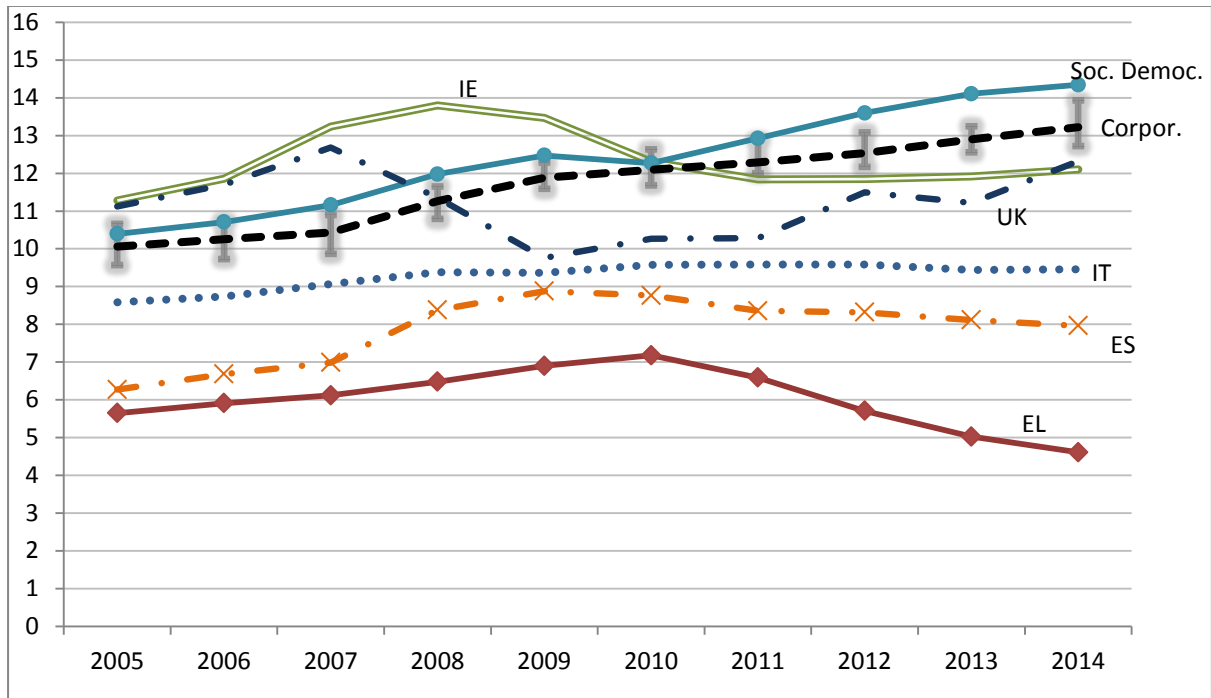
## Appendix tables

Appendix Table A2.1 Social risk groups – number of cases by country and period

	Minimum per country /period	Average per country/ period	Total (all countries, periods)
Lone parents (not married or cohabiting and has child under age 18)	66	262	8,635
Child under age 18 of lone parent (not a lone parent himself or herself)	115	467	15,403
Working-age adult aged 18-65 with a disability (excluding lone parents)	395	1416	46,734
Child under age 18 of a working-age adult with a disability (excluding lone parents or children of lone parents)	175	493	16,270
Other children aged 0 to 17 (not lone parent, children of lone parents or child of a working-age adult with a disability)	858	2163	71,372
Young adults (aged 18-29, not a lone parent of person with a disability)	392	1620	53,475
Other working-age adults aged 30-65 (not lone parent or person with a disability)	1965	5963	196,781
Older people	942	2478	81,775

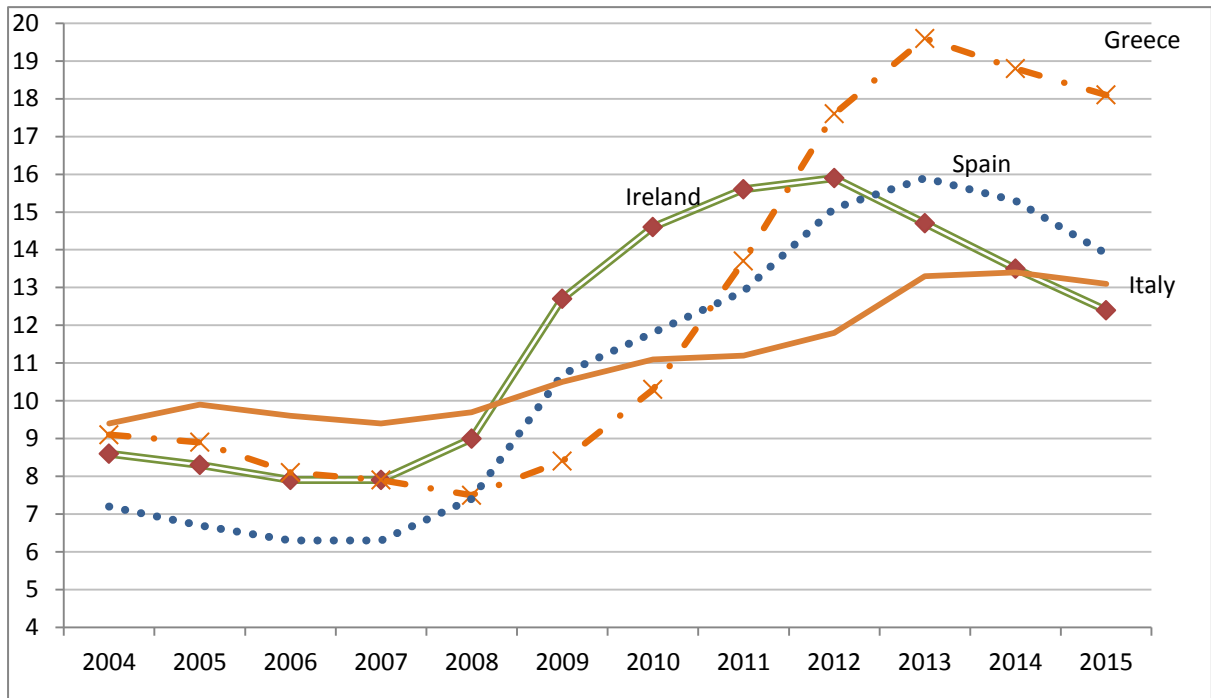
Source: EU SILC longitudinal data for eleven countries in three periods (2005-06, 3008-09 and 2013-14), unweighted, analysis by authors

**Appendix Figure A2.1: Change in poverty threshold for single adult, 2005-2014 in eleven EU countries**



Source: EU SILC Tables from Eurostat (Table tessi014, downloaded October 24, 2017), chart by authors

**Appendix Figure A2.2: Percentage of Adults aged 18-59 in Jobless Households in selected Countries**



Source: EU LFS Tables from Eurostat (Table lfsi\_jhh\_a, downloaded October 25, 2017), chart by authors

**Appendix Table A2.2 Impact of lone parenthood and disability on poverty and deprivation in either wave (odds ratios)**

		Deprivation	Poverty
<b>Social Risk</b>	<b>Lone parent</b>	6.11***	3.79***
	<b>Child of lone parent</b>	5.72***	3.86***
	<b>Adult with disability</b>	2.87***	1.98***
	<b>Child of adult with disability</b>	2.76***	2.14***
	<b>Other children</b>	1.11***	1.30***
	<b>Other young adults</b>	1.67***	1.59***
	<b>Other adults 30-65</b>	(Ref.)	(Ref.)
	<b>Other adults 66+</b>	1.10***	1.62***
<b>Country</b>	<b>SE</b>	(Ref.)	(Ref.)
	<b>NL</b>	1.66***	1.16**
	<b>FI</b>	2.15***	1.30***
	<b>AT</b>	2.71***	1.70***
	<b>BE</b>	3.04***	1.80***
	<b>FR</b>	3.39***	1.52***
	<b>UK</b>	3.27***	2.41***
	<b>IE</b>	4.69***	2.15***
	<b>ES</b>	4.04***	3.01***
	<b>IT</b>	5.72***	2.49***
	<b>EL</b>	10.97***	3.32***
<b>Period</b>	<b>2005-06</b>	(Ref.)	(Ref.)
<b>2</b>	<b>2008-09</b>	1.03	1.01
<b>3</b>	<b>2013-14</b>	1.41***	1.00
<b>Constant</b>		0.03***	0.09***
<b>N cases</b>		476,412	490,216

Source: EU-SILC data for three periods (2005-06; 2008-2009; 2013-2014), weighted data analysis by authors. Showing odds ratios from a logistic regression model on weighted data with standard errors adjusted for weights and clustering. \*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$ .

**Appendix Table A5.1 Number of cases for each social risk group by country and period**

Regime	Country	Lone parent and child(ren)	Adult with disability and child(ren)	Other children	Other young adults	Adults 30-65	Older adults
2005-2006	SE	618	825	2111	1274	4446	1209
	NL	629	1390	3945	1616	8144	1440
	FI	524	2121	2140	1416	5267	1229
	AT	523	1622	1276	1046	3471	1245
	BE	626	1145	1143	941	3076	1118
	FR	1023	1928	2406	1771	5922	2102
	UK	1365	2002	2127	1393	5780	2351
	IE	581	816	858	392	1965	1096
2008-2009	ES	784	3316	2920	3121	8858	3655
	IT	1112	3428	4868	4619	15981	6931
	EL	181	946	1476	1300	4005	2046
	SE	383	667	2118	1312	4832	1553
	NL	626	1605	3174	1407	7297	1742
	FI	355	1308	1966	1236	4883	1223
	AT	544	1632	1116	876	3128	1394
	BE	721	1218	1237	1118	3505	1323
	FR	1323	2588	3019	2257	7380	3011
	UK	859	1454	1544	981	4645	2278
	IE	499	868	899	444	2163	1369
	ES	961	3381	3185	3130	9724	4224
	IT	1159	4676	4180	3929	13793	6939
	EL	290	1028	1714	1428	4783	2555
2013-14	SE	242	570	1110	682	2807	1640
	NL	725	1960	2907	1559	7227	1990
	FI	616	3183	2880	1928	7523	2447
	AT	575	1574	950	844	3013	1425
	BE	738	1426	1162	1121	3470	1472
	FR	1376	2905	2691	1908	7352	3510
	UK	1341	2169	1888	1115	5327	3149
	IE	528	724	1033	438	1995	942
	ES	898	2925	2495	2378	8172	3690
	IT	994	4444	3186	3102	11606	6372
	EL	319	1160	1648	1393	5241	3105

Source: EU-SILC longitudinal data for eleven countries in 2005-06, 2008-09 and 2013-14, analysis by authors.

**Appendix Table A5.2 Material deprivation in either wave by period and country for vulnerable social risk groups and reference group**

Regime	Country	Lone parent		Adult with disability		Other adults 30-65	
		2005-06	2013-14	2005-06	2013-14	2005-06	2013-14
Soc Democ.	SE	31%	18%	16%	15%	4%	2%
	NL	43%	31%	24%	26%	5%	7%
	FI	40%	28%	18%	17%	8%	6%
Corporatist	AT	36%	35%	19%	25%	8%	8%
	BE	41%	45%	29%	26%	12%	11%
	FR	46%	40%	27%	23%	13%	11%
Liberal	UK	43%	59%	22%	40%	8%	12%
	IE	46%	61%	24%	52%	8%	25%
Southern	ES	38%	44%	26%	32%	12%	21%
	IT	32%	45%	29%	40%	15%	27%
	EL	61%	56%	43%	56%	23%	44%

Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Deprivation refers to deprivation in either wave.

**Appendix Table A5.3 Income Poverty in either wave by period and country for vulnerable social risk groups and reference group**

Regime	Country	Lone parent		Adult with disability		Other adults 30-65	
		2005-06	2013-14	2005-06	2013-14	2005-06	2013-14
Soc. Democ.	SE	19%	39%	12%	26%	5%	8%
	NL	31%	30%	17%	23%	9%	10%
	FI	25%	23%	17%	17%	9%	8%
Corporatist	AT	26%	41%	22%	24%	13%	14%
	BE	33%	41%	23%	28%	14%	12%
	FR	32%	41%	23%	18%	13%	12%
Liberal	UK	47%	39%	34%	33%	16%	15%
	IE	40%	47%	39%	28%	15%	18%
Southern	ES	43%	47%	33%	31%	21%	24%
	IT	43%	48%	29%	26%	20%	21%
	EL	47%	52%	32%	35%	24%	29%

Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Poverty refers to income poverty in either wave.

**Appendix Table A5.4 Persistent material deprivation by period and country for vulnerable social risk groups and reference group**

Regime	Country	Lone parent		Adult with disability		Other adults 30-65	
		2005-06	2013-14	2005-06	2013-14	2005-06	2013-14
Soc Democ.	SE	11%	11%	9%	5%	1%	1%
	NL	25%	17%	14%	15%	2%	3%
	FI	20%	11%	9%	8%	3%	2%
Corporatist	AT	13%	15%	8%	11%	2%	3%
	BE	24%	24%	15%	13%	5%	4%
	FR	23%	22%	13%	11%	5%	5%
Liberal	UK	23%	35%	9%	20%	2%	4%
	IE	26%	48%	12%	29%	3%	12%
Southern	ES	16%	22%	10%	15%	3%	8%
	IT	19%	27%	15%	21%	6%	12%
	EL	42%	41%	27%	35%	13%	27%

Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Persistent deprivation refers to deprivation in both waves.

**Appendix Table A5.5 Persistent Income Poverty by period and country for vulnerable social risk groups and reference group**

Regime	Country	Lone parent		Adult with disability		Other adults 30-65	
		2005-06	2013-14	2005-06	2013-14	2005-06	2013-14
Soc Democ.	SE	9%	22%	7%	15%	2%	4%
	NL	15%	16%	8%	13%	3%	5%
	FI	12%	12%	8%	9%	4%	4%
Corporatist	AT	8%	20%	9%	12%	4%	5%
	BE	12%	25%	11%	17%	5%	6%
	FR	15%	23%	11%	10%	5%	5%
Liberal	UK	22%	15%	16%	12%	5%	5%
	IE	28%	23%	26%	15%	7%	8%
Southern	ES	18%	29%	15%	19%	8%	14%
	IT	23%	28%	17%	15%	10%	12%
	EL	20%	38%	15%	20%	12%	15%

Source: EU-SILC longitudinal data for eleven countries in 2005-06 and 2013-14, analysis by authors. Persistent poverty refers to income poverty both waves.

## References

- Albertini, A., Kohli, M. and Vogel, C. (2007) Intergenerational transfers of time and money in European families: common patterns — different regimes? *Journal of European Social Policy*, 17(4): 319-334.
- Alcock, P. (1997) *Understanding Poverty*, Basingstoke: Macmillan Barnes, M., Heady, C. and Middleton, S. (eds) (2002) *Poverty and Social Exclusion in Europe*, London: Elgar
- Alkire, S. (2015). "Capability Approach and Well-being Measurement for Public Policy." OPHI Working Paper 94, Oxford University.
- Attias-Donfut, C., Ogg, J. and Wolff, F-C. (2005) 'European Patterns of Intergenerational Transfers', *European Journal of Ageing*, 2: 161—73
- Atkinson, A. B. and Morelli, S. (2011), Economic crises and Inequality, Human Development Research Paper 2011/06. Research Background paper for the Human Development Report 2011, New York: UNDP/UN.
- Ayllón, S. (2008). "Modelling poverty transitions in Spain: Do attrition and initial conditions really matter?" IRISS working paper n°2008-08, CEPS/INSTEAD, Differdange.
- Ayllón, S. and Gábos, A. (2017) The Interrelationships between the Europe 2020 Poverty and Social Exclusion Indicators. *Social Indicators Research*, 130:1025–1049
- Ayllón, S., 2013. Understanding poverty persistence in Spain. *SERIEs: Journal of the Spanish Economic Association*, pp.1-33.
- Bane, M.J., Ellwood, D. (1986) Slipping into and out of poverty: the dynamics of spells. *Journal of Human resources*. Vol. 21: 1-23.
- Barnes, M., Heady, C., Middleton, S., Millar, J., Papadopoulos, F., Room, G. and Tsakloglou, P. (2002) *Poverty and social exclusion in Europe*, Cheltenham: Edward Elgar.
- Biewen, M. (2009). 'Measuring state dependence in individual poverty histories when there is feedback to employment status and household composition', *Journal of Applied Econometrics*, 24(7): 1095-1116.
- Bukodi, E. and Róbert, P. (2007) *Occupational Mobility in Europe*. European Foundation for the Improvement of Living and Working Conditions. Luxembourg: Office for Official Publications of the European Communities.
- Burkhauser, R.V., (2001) What policymakers need to know about poverty dynamics. *Journal of Policy Analysis and Management*, 20(4), pp.757-759.
- Cappellari, L. and Jenkins, S.P. (2004). "Modelling low income transitions", *Journal of Applied Econometrics*, vol. 19, n°5, pp. 593-610.
- Cellini, S.R., McKernan, S.M. and Ratcliffe, C., (2008). The dynamics of poverty in the United States: A review of data, methods, and findings. *Journal of Policy Analysis and Management*, 27(3), pp.577-605.
- Central Statistics Office (CSO) (2017) SILC – Survey on Income and Living Conditions 2016. Dublin: Central Statistics Office.
- Chiappero-Martinetti, E. and Roche, J. M. (2009). "Operationalization of the Capability Approach, from Theory to Practice: A Review of Techniques and Empirical Applications." In E. Chiappero-Martinetti (ed.), *Debating Global Society: Reach and Limits of the Capability Approach* (pp.157–203). Fondazione Feltrinelli.
- Cullinan, J., Gannon, B. and Lyons, S. (2010). 'Estimating the extra cost of living for people with disabilities', *Health Economics*, published online June 2010, doi:10.1002/hec.1619.

- Dennis, I. and Guio, A.-C. (2003). 'Poverty and social exclusion in the EU after Laeken – part 1', *Statistics in Focus, Population and Social Conditions, Theme 3 – 8/2003*, Eurostat, Luxembourg
- Devicenti, F. (2001) 'Estimating poverty persistence in Britain', Working Paper 1, Torino, Italy: LABORatorio R. Revelli.
- Dewilde, C. (2003), 'A life course perspective on social exclusion and income poverty', *British Journal of Sociology*, 54.(1): 109-128.
- Di Prete, T. and Mcmanus, P. (2000) 'Family change, employment transitions and the welfare state: Household income dynamics in the United States and Germany', *American Sociological Review* 65: 343-70.
- Duffy, D., FitzGerald, J.(2012). "The Irish Housing Market ", *Quarterly Economic Commentary*, Special Article, Summer, Dublin: Economic and Social Research Institute Economic and Social
- Duncan, G. J., Gustafsson, B., Hauser, R., Schmauss, G., Messinger, H., Muffels, R., Nolan, B. and Ray, J.-C. (1993) 'Poverty dynamics in eight countries', *Journal of Population Economics* 6: 215-34
- Duncan, G.J., Brooks-Gunn, J. (1999) *Consequences of growing up poor*. New York: Russell Sage Foundation.
- Esping-Andersen, G., 1990, *The Three Worlds of Welfare Capitalism*, Oxford: Polity Press.
- Esping-Andersen, G. and Myles, J. (2009) 'Inequality and the Welfare State', in W. Salverda, B. Nolan and T.M. Smeeding (eds) *The Oxford Handbook of Economic Inequality*. Oxford: Oxford University Press.
- Eurofound (2007), *Occupational mobility in Europe*, Publications Office of the European Union, Luxembourg.
- European Commission (2009). 'Portfolio of indicators for the monitoring of the European strategy for social protection and social inclusion. 2009 update'
- European Commission (2010) *Income poverty and material deprivation in European countries*, Luxembourg: Publications Office of the European Union
- European Commission (2013a), *Social Developments Employment in Europe 2012*, Brussels: European Commission.
- European Commission (2015). 'Portfolio of EU Social Indicators for the Monitoring of Progress Towards the EU Objectives for Social Protection and Social Inclusion – 2015 update'. Brussels: Directorate for Employment, Social Affairs and Equal Opportunities, European Commission. <http://ec.europa.eu/social/BlobServlet?docId=14239&langId=en> .
- Eurostat (2013). 'Methodological Guidelines and Description of Eu-SILC Target Variables: 2014 operation (Version September 2010)', Document EU SILC 065 (2014 operation). Luxembourg: Eurostat.
- Eurostat (2014) 'Lot 1: EU-SILC (European Union Statistics on income and Living Conditions): Methodological studies and publications', working paper with the description of the 'Income and living conditions dataset' available at <https://circabc.europa.eu/sd/a/038d0218-6ec6-41e1-8b37-9d293b5fef49/0.%20Description%20of%20Datasets%20on%20Income%20and%20Living%20Conditions.pdf>
- Fouarge, D. and Layte, R. (2005) 'Welfare regimes and poverty dynamics: The duration and recurrence of poverty spells in Europe', *Journal of Social Policy* 34: 407-26.
- Fritzell, J and Ritakallio VM (2010) Societal shifts and changed patterns of poverty, *International Journal of Social Welfare*, 19(1):525-541.



- Fritzell, J., Bäckman, O. and Ritakallio, V.M., (2012) 'Income inequality and poverty: do the Nordic countries still constitute a family of their own', in J. Kvist, J. Fritzell, B. Hvinden, O. Kangas (eds) *Changing social equality The Nordic welfare model in the 21st century*. Gallie, D. and Paugam, S. (2000) 'The Experience of Unemployment in Europe', in D. Gallie and S. Paugam (eds) *Welfare Regimes and the Experience of Unemployment in Europe*. Oxford: Oxford University Press.
- Gardiner, K. and Hills, J. (1999) Policy implications of new data on income mobility. *The Economic Journal*. Vol. 109: F91-F111.
- Goldthorpe, J. H. (2007), 'Globalisation and Social Class' in H. Goldthorpe, *On Sociology Second Edition, Volume One: Critique and Programme*, Stanford: Stanford University Press
- Grasso, M. (2002) A Dynamic Operationalization of Sen's Capability Approach; Working Paper 59, Dipartimento di Sociologia e Ricerca Sociale, Università degli Studi di Milano Bicocca.
- Grotti, R., Maître, B., Watson, D. and Whelan, C. (2017) 'Poverty Transitions in Ireland: An Analysis of the longitudinal Central Statistics Office (CSO) Survey on Income and Living Conditions (SILC), 2004 -2015'. Social Inclusion Technical Paper No. 8, Dublin: Department of Employment Affairs and Social Protection.
- Guio, A.-C. and Marlier, E (2017) Amending the EU Deprivation Indicator: Impact on Size and Composition of Deprived Population, pp 193-208 in A.B. Atkinson, A-C Guio and E Marlier (eds) *Monitoring social inclusion in Europe*. Luxembourg: Publications Office of the European Union.
- Guio, A.-C., Marlier, E., and Pomati, M. (2017a) "Evolution of material deprivation over time: the impact of the great recession in EU countries", pp. 367-384 in A.B. Atkinson, A-C Guio and E Marlier (eds) *Monitoring social inclusion in Europe*. Luxembourg: Publications Office of the European Union.
- Guio, A.-C., and Pomati, M. (2017b) "How do European citizens cope with economic shocks? The longitudinal order of deprivation" pp. 385-400 in A.B. Atkinson, A-C Guio and E Marlier (eds) *Monitoring social inclusion in Europe*. Luxembourg: Publications Office of the European Union.
- Heckman, J. J. (1981). 'Heterogeneity and state dependence', pp. 91-140 in S. Rosen (eds.), *Studies in labor markets*. University of Chicago Press.
- Heeringa, S.G., West, B.T., Berglund, P.A. (2010) *Applied Survey Data Analysis*, (Boston: Chapman & Hall) Hardcover
- Hellevik, O. (2009). Linear versus logistic regression when the dependent variable is a dichotomy. *Quality & Quantity*, 43(1), 59-74.
- Hick, R. and Burchardt, T. (2016), 'Capability Deprivation', in Brady, D. and Burton, L. (eds), *The Oxford Handbook of the Social Science of Poverty*, Oxford, Oxford University Press.
- Immervoll, H. Jenkins, S P. and Königs, S (2015), Are Recipients of Social Assistance 'Benefit Dependent'? Concepts, Measurement and Results for Selected Countries. IZA Discussion Paper No. 8786.
- Jääntti, M., Törmälehto, V.-M., and Marlier, E. (2013), *The use of registers in the context of EU-SILC: challenges and opportunities*, Eurostat Methodologies and working papers, Publications office of the European Union, Luxembourg.
- Jenkins, S. (1999) 'Modelling household income dynamics', *Journal of Population Economics* 13: 529-67.
- Jenkins, S. P., Brandolini, A., Micklewright, J., and Nolan, B. (2013). *The Great Recession and the distribution of household income*. Oxford: Oxford University Press.

- Jenkins, S. and Van Kerm, P., (2011). Patterns of persistent poverty: Evidence from EU-SILC (No. 2011-30). ISER Working Paper Series.
- Jenkins, S.P. and Van Kerm, P (2012), The Relationship between EU Indicators of Persistent and Current Poverty. IZA Discussion Paper No. 7071.
- Jenkins, S.P. and Van Kerm, P., (2017). How does attrition affect estimates of persistent poverty rates? The case of EU SILC. pp. 401-418 in A.B. Atkinson, A-C Guio and E Marlier (eds) *Monitoring social inclusion in Europe*. Luxembourg: Publications Office of the European Union.
- Kautto M.(2002) 'Investing in services in West European welfare states'. *Journal of European Social Policy*,12(1):1253–65
- Kelly, E., McGuinness, S., O'Connell, P.J., Haugh, D. and Gonzalez, A. (2014) Transitions In and Out of Unemployment Among Young People in the Irish Recession, *Comparative Economic Studies*, 56: 616-634.
- Kohli, M, Albertini, M (2008) The family as a source of support for adult children's own family projects: European varieties. In: Saraceno, C (ed.) *Families, Ageing and Social Policy. Intergenerational Solidarity in European Welfare States*. Cheltenham: Edward Elgar, pp. 38–58.
- Korpi, W. and Palme, J. (1998) 'The Paradox of Redistribution and Strategies of Equality', *American Sociological Review* 63: 661–87.
- Krell, K. Frick, J. R., & Grabka, M. M. (2017). Measuring the Consistency of Cross-Sectional and Longitudinal Income Information in EU-SILC. *Review of Income and Wealth*, 63(1), 30-52.
- Layte, R., Maître, B., Nolan, B. and Whelan, C.T. (2001), "Persistent and consistent poverty in the 1994 and 1995 waves of the European Community Household Panel", *Review of Income and Wealth*, Series 47, No. 4, pp. 427-449
- Leisering, L and Liebfried, S. (1999), *Time and Income poverty in Western Welfare States: United Germany in Perspective*, Cambridge: Cambridge University Press
- Macmillan, Ross (2005) The Structure of the Life Course: Classic Issues and Current Controversies, *Advances in Life Course Research* 9:3-24.
- McQuinn, K., O'Toole, C., Economides, P., Monteiro, T. (2017), *Quarterly Economic Commentary - Winter*, Dublin, ESRI.
- Maître, B., Nolan, B. and Whelan, C.T. (2013) A Critical Evaluation of the EU 2020 Poverty and Social Exclusion Target: An Analysis of EU-SILC 2009. UCD Geary Institute Discussion Paper WP2013/09.
- McCoy, S; Smyth, E; Watson, D and Darmody, M. (2014). *Leaving School in Ireland: A Longitudinal Study of Post-School Transitions*. (Research Series Number 36). Dublin: The Economic and Social Research Institute.
- Matković, T., Šučur, Z., & Zrinščak, S. (2007). Inequality, Poverty, and Material Deprivation in New and Old Members of European Union. *Croatian Medical Journal*, 48(5), 636–652.
- Mood, C. and Jonsson, J.O., (2012), May. The Illusion of spells: making sense of poverty dynamics. In Population Association of America 2012 Annual Meeting. San Francisco (pp. 3-5).
- National Action Plan for Social Inclusion 2007 – 2016 (NAPInclusion)* (2007), Dublin: Stationery Office

- Nolan, B. & Whelan, C. T. (2010). Using non-monetary deprivation indicators to analyse poverty and social exclusion in rich countries: Lessons from Europe? *Journal of Policy Analysis and Management*, 29(2), 305-325.
- Nolan, B., Whelan, C.T., Calvert, E., Fahey, T., Healy, D., Mulcahy, A., Maître, B. and Norris, M. (2014), 'Ireland: Inequality and Its Impacts in Boom and Bust', in B. Nolan, W. Salverda, D. Checchi, I. Marx, A. McKnight, I.G. Tóth and H. van de Werfhorst, (eds.), *Changing Inequalities and Societal Impacts in Rich Countries: Thirty Countries' Experiences*, Oxford: Oxford University Press.
- Oxley, H. Thanh Dang, T., Antolin, P. (2000) Poverty dynamics in six OECD countries. *OECD Economic Studies*, No. 30, 2000/1. Paris: OECD.
- Palme, J. (2006) 'Welfare States and Inequality: Institutional Designs and Distributive Outcomes', *Research in Social Stratification and Mobility* 24: 387–403.
- Polin, V. and Raitano, M., 2014. Poverty Transitions and Trigger Events across EU Groups of Countries: Evidence from EU-SILC. *Journal of Social Policy*, 43(4), pp.745-772.
- Power, C., Manor, O., Matthews, S. (1999) The duration and timing of exposure: effects of socio-economic environment on adult health. *American Journal of Public Health*. Vol. 89: 1059-65
- Robeyns, I. (2006). "The Capability Approach in Practice." *Journal of Political Philosophy*, 14(3): 351–376
- Russell, H, Maître, B and Donnelly, N. (2011) *Financial Exclusion and Over-Indebtedness in Irish Households*. Dublin: Department of Community, Equality and Gaeltacht Affairs.
- Russell, H; Maitre, B; Nolan, B (2010) *Monitoring Poverty Trends in Ireland 2004-2007: Key Issues for Children, People of Working Age and Older People*. (Research Series 17) Dublin: ESRI.
- Savage, M., Callan, T., Nolan, B. and Colgan, B. (2015), 'The Great Recession, Austerity and Inequality: Evidence from Ireland.' (Working Paper499, April 2015). Dublin: Economic and Social Research Institute.
- Sen, A. K. (1992) *Inequality Reexamined*, Oxford: Oxford University Press.
- Sen, A. (2009). *The Idea of Justice*. London: Allen Lane
- Smeeding, T. (1997) *Financial Poverty in Developed Countries*. Luxembourg Income Study, Working Paper 115.
- Solon, G., Haider, S.J. and Wooldridge, J.M. (2015) What Are We Weighting For? *Journal of Human Resources*, 50(2): 301-316 doi: 10.3368/jhr.50.2.301
- StataCorp (2013a) *Stata: Release 13. Statistical Software*, College Station, TX: StataCorp LP
- StataCorp (2013b) *Stata Survey Data Reference Manual, Release 13*, College Station, TX: StataCorp LP
- Stewart, M. B. (2007). The interrelated dynamics of unemployment and low-wage employment. *Journal of applied econometrics*, 22(3), 511-531.
- Stevens, A.H. (1994) 'Persistence of poverty and welfare: the dynamics of poverty spells: updating Bane and Ellwood', *American Economic Review, Papers and Proceedings*, 84:34-37.
- Taylor-Gooby, P. (2004). *New Social Risks and Welfare States: New Paradigm and New Politics?* in: Taylor-Gooby, P. ed. *New Risks, New Welfare*. Oxford: Oxford University Press, pp. 209-248.

- Valletta, R.G., (2006). The ins and outs of poverty in advanced economies: Government policy and poverty dynamics in Canada, Germany, Great Britain, and the United States. *Review of Income and Wealth*, 52(2), pp.261-284.
- Vandecasteele, L., (2010a). 'Life course risks or cumulative disadvantage? The structuring effect of social stratification determinants and life course events on income poverty transitions in Europe', *European Sociological Review*, Vol. 27, No. 2, pp. 246–263.
- Vandecasteele, L., (2010b). Poverty trajectories after risky life course events in different European welfare regimes. *European Societies*, 12(2), pp.257-278.
- Verbist, G., M. Förster and M. Vaalavuo (2012), "The Impact of Publicly Provided Services on the Distribution of Resources: Review of New Results and Methods", OECD Social, Employment and Migration Working Papers, No. 130, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5k9h363c5szq-en>
- Walker, R. (1994) *Poverty Dynamics: Issues and Examples*, Aldershot: Avebury.
- Watson, D., and Maître, B (2012) Technical Paper on Poverty Indicators, Appendix C, *Report of the Review of the National Poverty Target*, Social Inclusion Technical Paper No. 2. Dublin: Department of Social Protection.
- Watson, D., and Maître, B. (2013) *Social Transfers and Income poverty Alleviation in Ireland: An Analysis of the Survey on Income and Living Conditions 2004 – 2011*. Dublin: ESRI and Department of Social Protection
- Watson, D., Kingston, G. and McGinnity, F. (2013) *Disability in the Irish Labour Market: Evidence from the QNHS Equality Module 2010*, Dublin: The Equality Authority and the ESRI
- Watson, D., Maître, B., and Russell, H. (2015) *Transitions into and out of Household Joblessness, 2004 to 2014: An Analysis of the Central Statistics Office (CSO) Quarterly National Household Survey (QNHS)*. Dublin: The Department of Social Protection and the ESRI.
- Watson, D., Maître, B. and Whelan, C.T. (2012) *Work and Poverty in Ireland: An Analysis of CSO Survey on Income and Living Conditions 2004-2010*. Dublin: ESRI and Department of Social Protection
- Watson, D., Maître, B., Whelan, C. and Williams, J. (2014) *Dynamics of Child Economic Vulnerability and Socio-Emotional Development: An Analysis of the First Two Waves of the Growing Up in Ireland Study*. Dublin: Department of Children and Youth Affairs
- Watson, D., Maître, B., Whelan, C.T. and Russell, H. (2016) *Poverty and Quality of Life of Social Risk Groups and Social Classes: An Analysis of the Central Statistics Office (CSO) Survey on Income and Living Conditions for Ireland, 2004 to 2013*. (ESRI Research Series) Dublin: ESRI.
- Watson, D., Maître, B., Whelan, C.T. and Williams, J. (2017) 'Socio-Economic Variation in the Impact of the Irish Recession on the Experience of Economic Stress among Families'. *Economic and Social Review (Special Issue on GUI)*, 47(4): 477-498.
- Watson, D. and Maître, B. (2013) *Social Transfers and Poverty Alleviation in Ireland: An Analysis of the Survey on Income and Living Conditions 2004 – 2011*. Dublin: ESRI and Social Inclusion Division of Department of Social Protection.
- Watson, D; Kingston, G and McGinnity, F. (2013) *Disability in the Irish Labour Market: Evidence from the QNHS Equality Module 2010*. Dublin: The Equality Authority and the ESRI
- Watson, D.; Maître, B. and Kingston, G.(2014) *Developing a country typology for analysing quality of life in Europe*, (A Report of the European Foundation for the Improvement of Living and Working Conditions), Luxembourg: Publications Office of the European Union.

- Western, B., Bloome, D., Sosnaud, B. and Tach, L. (2012) 'Economic Insecurity and Social Stratification,' *Annual Review of Sociology* 38: 341-359 (Volume publication date August 2012)
- Whelan, C., Layte, R., and Maître, B. (2002). 'Multiple deprivation and persistent poverty in the European Union', *Journal of European Social Policy*, 12 (2), 91–105.
- Whelan, C. T. and Maître, B. (2008) The Life Cycle Perspective on Social Inclusion in Ireland: An Analysis Of EU-SILC, ESRI Research Series, # 3, October 2008. Dublin: ESRI
- Whelan, C. T. and Maître, B (2010), 'Comparing Poverty Indicators in an Enlarged EU', *European Sociological Review*, 26(6): 713-730
- Whelan, C.T., Layte, R. and Maitre, B., 2003. Persistent income poverty and deprivation in the European Union: an analysis of the first three waves of the European Community Household Panel. *Journal of Social Policy*, 32(1), pp.1-18.
- Whelan, C.T., Russell, H. and Maître, B. (2016) "Economic Stress and the Great Recession in Ireland: Polarization, Individualization or 'Middle Class Squeeze'?" *Social Indicators Research*, 126 (2): 503-526.
- Wilkinson, R.G. and Pickett, K. (2009) *The Spirit Level: Why More Equal Societies Almost Always Do Better*. London, Allen Lane.
- Williams, B. (1978) *A Sampler on Sampling*. New York: Wiley
- Wright, E. O. (1978) *Class, Crisis and the State*. 1978: New Left Books

## Glossary

**At-risk-of-poverty:** a term used at EU level to denote whether a household's income falls below the 60% of median income threshold. It is also known as relative **income poverty**.

**At-risk-of-poverty thresholds (or income poverty thresholds):** income thresholds derived as proportions of median income. These are based on the household income adjusted for household size and composition (referred to as equivalised income). A household at-risk-of-poverty has an adjusted (or equivalised) income below 60% of the median adjusted household income. The at-risk-of-poverty rate takes account of household income from all sources, number of adults and number of children in the household. There are some minor differences in the income concept and the equivalence scale between the Irish and EU measures of at-risk-of-poverty.

**Basic deprivation:** people who are denied – through lack of income – at least **two items on this list of 11** are regarded as experiencing relative deprivation. This is enforced deprivation as distinct from the personal choice not to have the items. Eleven basic items are used to construct the deprivation index:

- unable to afford two pairs of strong shoes
- unable to afford a warm waterproof overcoat
- unable to afford new (not second-hand) clothes
- Unable to afford a meal with meat, chicken or fish (vegetarian equivalent) every second day
- unable to afford a roast joint or its equivalent once a week
- without heating at some stage in the last year through lack of money
- unable to afford to keep the home adequately warm
- unable to afford to buy presents for family or friends at least once a year
- unable to afford to replace any worn out furniture
- unable to afford to have family or friends for a drink or meal once a month
- unable to afford a morning, afternoon or evening out in the last fortnight for entertainment.

The indicator **of basic deprivation** was developed by the Economic and Social Research Institute using data from the *Survey on Income and Living Conditions*. See Maître B., Nolan B. and Whelan C. (2006) *Reconfiguring the Measurement of Deprivation and Consistent poverty in Ireland*, Dublin: ESRI, for further information on the indicator.

**Consistent poverty:** this is a measure of poverty used in the *National Action Plan for Social Inclusion 2007-2017 (NAPinclusion)* that takes account of the household's living standards as well as the household size, composition and total income. A household is consistently poor if the household income is below the at-risk-of-poverty threshold (or income poverty threshold, see above) and the household members are deprived of **at least 2 out of the 11 items** on the basic deprivation list.

**Deprivation:** see definition for 'basic deprivation' above for measure of deprivation used in the *NAPinclusion*. See definition for 'material deprivation' for the components of the EU 9-item indicator.

**Employment rate:** the employment rate is the proportion of the working-age population that is employed. The International Labour Organisation (ILO) definition of employed persons are those aged 15 years and over who have worked for payment or profit in the reference week (usually the week preceding the survey) or who had a job from which they were temporarily absent for reasons such as holidays, maternity leave or sick leave.

**Equivalence scales:** a set of relativities between the needs of households of differing size and composition, used to adjust household income to take into account the greater needs of larger households. In Ireland the national scale attributes a weight of one to the first adult (aged 14+) and 0.66 to each subsequent adult and a weight of 0.33 to each child. International comparisons such as the one done by Eurostat uses the modified OECD scale which attributes a weight of one to the first adult (aged 14+) and 0.5 to each subsequent adult and a weight of 0.3 to each child.

**Equivalised income:** This refers to household income from all sources adjusted for differences in household size and composition (number of adults and children). It is calculated by dividing total

disposable (i.e. after tax) household income by the equivalence scale value. It can be interpreted as income per adult-equivalent.

**EU-SILC:** *European Union Statistics on Income and Living Conditions*; this is a voluntary household survey carried out annually in a number of EU member states allowing comparable statistics on income and living conditions to be compiled. In Ireland, the Central Statistics Office (CSO) have been conducting the survey since 2003. The results are reported in the Survey on Income and Living Conditions (SILC). Any data as compiled by Eurostat and any reference to the questions or questionnaire in the household survey is here referred to as 'EU-SILC'.

**Household:** a household is usually defined for statistical purposes as either a person living alone or a group of people (not necessarily related) living at the same address with common housekeeping arrangements – that is, sharing at least one meal a day or sharing a living room or sitting room.

**Household equivalent (or equivalised) income:** household income adjusted to take account of differences in household size and composition by means of equivalence scales.

**Household joblessness:** the share of persons under the age of 60 in households where no working-age adult is in employment (according to the International Labour Organisation – see 'employment rate' definition above).

**Lone parent:** a parent who has primary custody of a dependent child and is not living with the other parent.

**Material deprivation (EU):** this is the nine-item indicator as endorsed in 2009 by the EU (European Commission, 2009) and is one of the European Commission's common indicators on social protection and social inclusion. It measures the proportion of the population in households lacking at least three out of the following nine items:

- arrears on mortgage or rent payments, utility bills, hire purchase instalments or other loan payments
- capacity to afford paying for one week's annual holiday away from home
- capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day
- capacity to face unexpected financial expenses (set amount corresponding to the monthly national at-risk-of-poverty threshold of the previous year)
- household cannot afford a telephone (including mobile phone)
- household cannot afford a colour TV
- household cannot afford a washing machine
- household cannot afford a car
- ability of the household to pay for keeping its home adequately warm.

A newer indicator of deprivation is being introduced, which includes a wider range of items (see Guio and Marlier, 2017), but the data are not yet available for comparisons over time.

**Median:** the value that divides a sample in half (e.g. the income level above and below which half the people in a sample fall).

**Median income:** is calculated by ranking the population by equivalised income from smallest to largest and the median or middle value is extracted. This is considered a more appropriate measure than mean income which can be skewed by extreme values.

**Odds ratios:** measure the association between a characteristic and an outcome. The odds ratio is the ratio of the odds that an outcome will occur given a particular characteristic, compared to the odds of the outcome occurring in the reference group. For instance, an odds ratio of 2.5 for employment entry (the outcome) for adults under age 25 (the characteristic) compared to those aged 55 to 59 (the reference group) means that the odds of entering employment is 2.5 times higher for the younger adults than for the older group, with other characteristics controlled. Odds ratios with a value greater than one indicate that the characteristic increases the chances of the outcome compared to the reference group. An odds ratio less than one means that the characteristic reduces the chances of the outcome compared to the reference group.

**Poverty gap:** the shortfall in incomes for those who fall below the at-risk-of-poverty threshold.

**Poverty and social exclusion:** these terms are defined in the *Updated National Action Plan for Social Inclusion 2015-2017* (NAPinclusion) as:

‘People are living in poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them from having a standard of living which is regarded as acceptable by Irish society generally. As a result of inadequate income and resources people may be excluded and marginalised from participating in activities which are considered the norm for other people in society.’

The two concepts are very similar when used in Irish policymaking but poverty is sometimes used in the narrower context to refer to low income (or wealth). On the other hand, social exclusion is almost always used in the broader sense, to refer to the inability to participate in society because of a lack of resources that are normally available to the general population.

**Severe material deprivation:** this EU indicator measures the proportion of the population lacking at least four of the nine items listed in the EU index of material deprivation (see definition above).

**SILC:** in Ireland, the Central Statistics Office (CSO) is responsible for carrying out the EU-SILC survey. They produce analysis in accordance with Irish national poverty targets, indicators and related issues. These results are reported in the Survey on Income and Living Conditions (SILC). Any data or analysis that is sourced specifically from the CSO is here referred to as ‘SILC’.

**Social welfare transfers:** cash receipts paid from various social welfare schemes received by the individual or household.

**Unemployment rate:** the unemployment rate is the proportion of the active (i.e. at work or unemployed) working-age population that is unemployed. The International Labour Organisation (ILO) definition of unemployed persons are those aged 15 years and over who are without work in the reference period (usually the week preceding the survey), are currently available for work and are seeking work. Those who are ‘inactive’ (i.e. not seeking and available for work) are not included in the denominator.