PUBLIC TRANSFERS AND THE AGE-PROFILE OF POVERTY IN EUROPE

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Ensuring adequate living standards to a growing number of elderly while restraining the growth of pension spending represents the main challenge for pension policy in most countries. There is a need for an in-depth analysis of the economic conditions of the elderly which can help targeting resources in the coming years to the more needy groups. Children are another potentially vulnerable group of the population: their poverty can affect human capital accumulation and have long lasting effects on life-time well-being. Using data from the latest wave of the EU Survey on Income and Living Conditions (SILC), we document that the poverty rates of these two age groups with respect to the other components of the population differ considerably across European countries. These differences are largely due to the different anti-poverty effectiveness of national social policies. In particular, in "Social-democratic" and "Corporatist" welfare states the age-profile of poverty is flat; on the contrary, in Anglo-saxon and especially in Southern European countries young and elderly groups show remarkably higher poverty rates.

1 Introduction

The main aim of this paper is to assess the extent of income deprivation among children and elderly in EU countries, as well as the role of social spending policies in shaping cross-country differences in the age-profile of poverty.

Focusing on poverty is especially relevant from a normative point of view. Indeed, while there is a lot of disagreement about the "just" or "fair" amount of inequality within a society, there is wide agreement that poverty and social exclusion are the source of huge individual and collective costs (see, e.g., Feldstein, 2005). Widespread poverty can put into question the European endeavour itself, which might be seen as unable to promote social cohesion and to protect the living conditions of a significant fraction of the European population. These concerns are confirmed by the inclusion of "eradication of poverty and social exclusion" as one of the main objectives of the Open method of co-ordination (OMC) on Social inclusion and social protection launched in 2006.[1] Focusing on the young and the old is also justified by the fact that these two subgroups are particularly vulnerable: indeed, we show below that both the elderly and the young face a higher-than-average risk of poverty, and that for both groups public transfers represent a large fraction of their resources. Children deserve particular attention for two further reasons: they do not bear responsibilities for their conditions, and deprivation in the first part of life can have long lasting effects on their lifetime well-being (OECD, 2009).

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The opinions expressed herein do not necessarily reflect those of Banca d'Italia.

[1] In the EU jargon, the OMC is an approach to the coordination of member states' policies which is intermediate between EU common policies and the policies left to the single countries. Under the OMC, the member states agree on common objectives and on a set of common indicators. They prepare national reports on a regular basis, in which plans are outlined in order to meet the common objectives, and plans are then evaluated in joint reports by the EU Commission and the Council. The OMC on Social inclusion and social protection brings together two previously separated sets of policies in the field of social inclusion and pensions, and encompasses for the first time the field of health and long-term care. This process has three "overarching objectives": promote social cohesion and equal opportunity for all; interact closely with the Lisbon objectives; strengthen governance, transparency and the involvement of the stakeholders in the design, implementation and monitoring of policy. It also has three more specific aims (one for each of the three policy areas): eradication of poverty and social exclusion, adequate and sustainable pensions, accessible, high-quality and sustainable health care and long-term care. Based on the work of its Indicators Subgroup, the Social Protection Committee of the European Union adopted a set of common indicators for the social protection and social inclusion process. It consists of a set of fourteen indicators meant to reflect the overarching objectives and of three sets of further indicators specific to the policy areas of social inclusion, pensions, and health and long-term care. See European Commission (2009a).

An in-depth examination of the conditions of these vulnerable age-groups is also particularly relevant from a public finance point of view. At the moment, most European countries are striving with difficult budgetary choices. On one side, it is urgent to gain fiscal room to finance expansionary stimulus packages. On the other side, long-term challenges, especially those due to the aging process and to the related spending pressures, are looming large. So it seems important that increasingly scarce fiscal resources are targeted toward the most needy groups of the population.

While it is well known that European countries differ markedly in the incidence of poverty among the population (Marlier *et al.*, 2007; European Commission, 2009a; OECD, 2008), in this paper we show that European countries differ with respect to another less-discussed dimension, namely the relative condition of children and elderly citizens with respect to the rest of the population.[2] Moreover, we show that in some – but not all – European countries the tax-benefit system is particularly effective in smoothing-out the age-profile of poverty, thereby reducing the differences in deprivation between young and elderly citizens and the other groups of the population.

An assessment of welfare policies is complicated by the fact that they differ along many dimensions across European countries. Following Esping-Andersen (1990), we group European welfare states into a small number of clusters: "Liberal" (the United Kingdom and Ireland), "Corporatist" (Austria, Belgium, France, Germany and Luxembourg), "Social-democratic" (which comprises the Scandinavian countries – Denmark, Finland, Iceland, Norway and Sweden – and the Netherlands), and "Southern European" (Cyprus, Greece, Italy, Spain and Portugal).

As the labels suggest, the typology is built to reflect hypotheses concerning (1) the common historical and political origins of each different welfare regime and (2) the common consequences in terms of inequality and class differences. It is argued that in Liberal regimes the state has a residual welfare role with respect to the market; it provides means-tested social benefits targeted to the very poor. Corporatist countries allegedly give less emphasis to redistribution and use welfare primarily for reasons of mutual aid and risk pooling, with rights to benefits depending on the individual being inserted in the labour market. In Social-democratic countries the state has instead a substantial redistributive role, through generous social welfare and unemployment benefits. Finally, the Southern European group is singled out for the strong role of family support, while labour market policies are relatively less developed and selective.

In what follows, we do not take a stance in this debate. However, although researchers disagree about the causes and consequences of different welfare regimes, they broadly agree on the grouping of countries (Arts and Gelissen, 2002). So we use the four-group distinction (to which we add the Post-communist country group) as a handy way to present and summarize our findings.[3]

The four groups also dovetail nicely in the two-dimensional classification proposed by Bonoli (1997), based on (1) the amount of spending, distinguishing small welfare states (Liberal and Southern) from large welfare states (Corporatist and Social-democratic) and (2) the redistributive impact of policies, separating Beveridgean welfare states (Liberal and Social-democratic) from Bismarkian welfare states (Southern and Corporatist). The significance of

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[2] Two exceptions are Smeeding and Sullivan (1998) and Dang *et al.* (2006). The former paper considers four countries (Canada, Sweden, UK and USA) over the 1974-1994 period. The latter uses data for the late nineties about 9 OECD countries. Both papers differ from ours because they rely on national surveys, each with a different questionnaire design and definition of variables.

[3] There is some disagreement about the usefulness of separating southern and corporatist countries (in favour of the separation are, for example, Bonoli (1997) and Ferrera (1996). There is also some debate about the right place for the Netherlands. We put it in the Social-democratic cluster following, among others, Nolan and Whelan (2007). Lynch (2006) provides an in-depth analysis of the post-war II evolution of the Netherlands welfare state towards Scandinavian standards.

these two dimensions has also been emphasized in the economics literature (e.g., Conde-Ruiz and Profeta, 2007; Koethenbuerger *et al.*, 2008).

The importance of the age-orientation of public spending has been stressed by several studies. The literature on generational accounting (Raffelhuschen, 1999; European Commission, 1999) takes an inter-temporal approach. Combining cross-sectional micro-data with macroeconomic and demographic projections, and imposing an economically meaningful inter-temporal government budget constraint, this stream of literature aims at assessing whether public policies treat different cohorts differently. Instead, we limit ourselves to the first step, taking a snapshot of differences in policies as of today. This might be a limit if one considers that in many European countries current fiscal policies might not be sustainable (they do not comply with the inter-temporal government budget constraint), so that they will have to be changed in some point in the future (see European Commission, 2009b; Balassone *et al.*, 2009).[4]

There are two more fundamental differences between the generational accounting approach and ours. First, we consider the distribution of resources across and within age groups, whereas the latter dimension is ignored in generational accounting studies. Second, while in generational accounting studies the approach is completely individualistic (it assumes the absence of resource-sharing within families), we assume that resources are shared equally among the members of the same household. Of course in the two frameworks the impact of public transfers on the well-being of different cohorts/age groups can be quite different. For example in our framework old-age pensions benefit not only the recipient, but also the people who live with her or him, some of which may be young.

Our paper is particularly related to Lynch (2001 and 2006), who has made the first attempt at measuring and explaining the age-orientation of developed countries' welfare states. We improve on her contribution in two respects: first, we provide more accurate and comprehensive measures of the age-bias of European social policies; second, we explore the impact of such age-bias on poverty.

The rest of the paper is organized as follows: in Chapter 2 we briefly describe our micro-data (drawn from the EU-SILC survey), review the main concepts usually employed in the study of poverty, and highlight their main limitations. In Chapter 3 we provide a short overview of poverty and deprivation across Europe, considering in particular the role played by living arrangements and working conditions. In Chapter 4 we focus on our main issue of interest: the age-profile of poverty and its cross-country variations. In Chapter 5 we provide measures of effectiveness, efficiency and age-orientation of public policies and evaluate their impact on the age-profile of poverty. Chapter 6 offers some tentative conclusion.

2 Data, definitions and measurement issues

Our analysis is based on data from the latest available wave of the European Union Survey on Income and Living Conditions (EU-SILC). It has been conducted in 2006 with reference to 2005 and contains data for twenty-six countries, namely all EU member states in that year except Malta plus Iceland and Norway.[5]

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[4] Moreover, government policies are already changing. In recent years, many countries have introduced pension reforms which are characterized by less generous benefits and tighter eligibility conditions (Feldstein and Siebert, 2002). As a result, the economic conditions of elderly people are likely to deteriorate with respect to those of workers, unless longer working lives and a quick development of private pensions can offset the less generous social security rules.

[5] The survey has been launched for the first time in 2004, with reference to 2003. EU-SILC is organised under a common framework and is compulsory for all EU member states. A Regulation defines the minimum effective sample size to be achieved. For the cross-sectional component, it is planned to achieve a minimum effective sample size of around 121,000 households or 250,000

(continues)

The EU-SILC sample covers about 203,000 households and 537,000 individuals. One sixth of these individuals are younger than 16, two thirds are in the 16 to 64 bracket, and one sixth are older than 64 (Table 1).

Among households, 30.3 per cent are composed by only one person, 36.5 per cent is made up of two or more adults without children. Among the households with children (32.5 per cent), those with a single parent are slightly more than 4 per cent (Table 2).[6]

EU-SILC, which adopts a questionnaire common to all countries, provides information on individuals living in private households.[7] It includes variables measured both at the household and individual level. These variables include: income, education, information on current and past working status, health, access to health care, detailed labour and career information.

An important goal of the survey is to provide both gross and net income data. In particular, three main aggregates are made available by EU-SILC: total disposable household income, total disposable household income less transfers, and total gross income (disposable income plus taxes and social contributions). However, the latter will only be fully available with the data concerning 2007. The years 2004-06 can be seen as transitional period as five countries, namely France, Greece, Italy, Latvia and Portugal, are allowed to deliver only net income components and for all countries a limited number of components is not compulsory.

Gross income components covered by EU-SILC are: employee income, self-employment income, imputed rents, property income, interests paid on mortgage, current transfers paid (this item is in turn made up of: tax on income and regular taxes on wealth, social security contributions and regular inter-household transfers), and current transfers received.

For our aims, transfers received from the government are particularly important. Social benefits are decomposed in: unemployment benefits, old-age benefits, survivor' benefits, sickness benefits, disability benefits and education related allowances. At the household level, we also have family/children related allowances, housing allowances, and a third item concerning other transfers generically directed to the problem of social exclusion.[8]

individuals older than sixteen years in the EU (respectively 127,000 and 260,000 including Iceland and Norway). Useful information about the EU-SILC survey can be found in Eurostat (2007b).

[6] Here and in what follows, we will focus on the population counterparts of the sample variables. The latter are derived from the former applying a specific set of weights. Indeed, if the sampling design is such that individuals in the population have different probabilities of sample participation, due to sampling design or to systematically different non-response behaviour, this may bias inference from the sample to the population, unless selection probabilities are properly taken into account through weights (see, e.g., the discussion in Deaton, 1997). In accordance with the Commission Regulation on sampling and tracing rules (Regulation No. 982/2003 of 21 October 2003, par. 7.4), EU-SILC provides weights "calculated as required to take into account the units' probability of selection, non-response and, as appropriate, to adjust the sample to external data relating to the distribution of households and persons in the target population, such as by sex, age (five-year age groups), household size and composition and region (NUTS II level), or relating to income data from other national sources where the Member States concerned consider such external data to be sufficiently reliable".

[7] All individuals living in collective households and in institutions are therefore excluded. In some countries this implies an under-representation of elderly people, which often live in specialised institutions. Furthermore, the exclusion of collective households, hospitals and prisons may conduct to an under-estimation of the incidence and intensity of poverty.

[8] In order to be considered as social transfers, the monetary benefit has to come from collectively organised schemes or by government units and non profit institutions serving households and should meet one of two criteria: coverage in the scheme is compulsory or it is based on the principle of social solidarity. In the EU-SILC, social benefits are consistent with the European System of integrated Social Protection Statistics (ESSPROS) classification, even if not all elements of ESSPROS itself are included (in particular, EU-SILC definition covers only cash benefits with the exceptions of housing and only current transfers; it includes the function education while ESSPROS does not; the ESSPROS definition, differently from EU-SILC, covers certain reductions on taxes different from family allowances if they meet the general criteria for social protection schemes and other specific criteria). The ESSPROS classification is in turn consistent with the COFOG classification of government expenditures by function. In some countries social transfers include the value of social contributions and income taxes payable on the benefits by the beneficiary.

Table 1

Individuals and Households in EU-SILC

Countries	Individuals				Households				
	Total	0-15	16-64	65+	Total	One-person Households	Households with Two or More Adults without Children	One-adult Households with Children	Two-adult Households with Children
Austria	14,883	2,778	9,680	2,425	6,028	1,754	2,192	273	1,809
Belgium	14,329	2,840	9,378	2,111	5,860	1,642	2,134	366	1,708
Cyprus	11,069	2,251	7,280	1,538	3,621	533	1,412	98	1,578
Czech Republic	17,830	2,907	11,807	3,116	7,483	2,923	2,916	361	2,083
Germany	31,777	5,515	20,400	5,862	13,799	3,832	5,415	1,016	3,521
Denmark	14,676	3,222	9,763	1,691	5,711	1,108	2,294	254	2,022
Estonia	15,840	2,503	10,830	2,507	5,631	1,139	1,960	326	2,180
Spain	34,694	5,667	22,896	6,131	12,205	1,981	5,246	314	4,521
Finland	28,039	5,768	19,125	3,146	10,868	2,377	4,408	392	3,691
France	24,940	5,279	15,966	3,695	10,036	2,752	3,452	536	3,242
Greece	15,190	2,415	9,475	3,300	5,700	1,228	2,558	102	1,793
Hungary	19,902	3,290	13,009	3,603	7,722	1,939	3,057	366	2,360
Ireland	14,634	3,139	8,600	2,895	5,836	1,816	2,065	312	1,643
Iceland	8,598	2,061	5,734	803	2,845	383	938	152	1,359
Italy	54,512	8,035	35,215	11,262	21,499	5,491	8,805	599	6,604
Lithuania	12,134	1,811	7,928	2,395	4,660	1,016	1,838	219	1,587
Luxembourg	10,242	2,391	6,857	994	3,836	866	1,306	199	1,465
Latvia	10,985	1,678	7,005	2,302	4,315	1,120	1,591	261	1,318
Netherlands	23,096	5,489	15,128	2,479	8,986	2,091	3,358	327	3,209
Norway	15,454	3,434	10,541	1,479	5,768	1,232	2,071	274	2,109
Poland	45,122	8,201	30,613	6,308	14,914	2,726	5,165	528	6,256
Portugal	12,071	1,788	7,820	2,463	4,367	770	1,933	112	1,545
Sweden	17,149	3,577	11,419	2,153	6,803	1,664	2,441	344	2,330
Slovenia	31,276	4,136	23,044	4,096	9,478	872	3,936	258	4,412
Slovakia	15,147	2,258	10,917	1,972	5,105	1,122	1,801	151	2,028
UK	23,365	4,789	14,592	3,984	9,902	2,768	3,983	634	2,309
Total	536,954	97,222	355,022	84,710	202,978	47,145	78,275	8,774	68,682

Table 2

Individuals and Households in EU-SILC (Weighted)

Countries	Individuals				Households				
	Total	0-15	16-64	65+	Total	One-person Households	Households with Two or More Adults without Children	One-adult Households with Children	Two-adult Households with Children
Austria	8,182,229	1,355,651	5,465,163	1,361,415	3,508,442	1,218,616	1,224,163	137,467	928,196
Belgium	10,432,483	1,848,167	6,840,279	1,744,037	4,521,958	1,510,535	1,593,291	236,457	1,175,082
Cyprus	762,164	148,087	522,308	91,770	256,600	41,096	94,566	6,594	114,344
Czech Republic	10,160,544	1,588,904	7,135,368	1,436,272	4,027,670	953,570	1,644,553	165,076	1,264,470
Germany	81,954,033	12,363,215	54,046,986	15,543,832	38,895,762	14,810,117	13,587,872	2,016,935	8,432,803
Denmark	5,365,079	1,054,800	3,474,598	835,681	2,661,145	1,165,972	782,542	142,808	563,791
Estonia	1,348,337	211,901	908,533	227,903	565,138	186,847	174,066	35,603	166,752
Spain	44,539,936	6,602,000	30,560,782	7,377,154	15,604,257	2,569,350	6,969,705	285,726	5,575,340
Finland	5,179,228	949,916	3,393,406	835,906	2,434,999	938,394	843,927	99,011	553,667
France	59,513,895	11,194,694	38,327,629	9,991,572	25,988,931	8,073,528	9,043,656	1,268,085	7,490,537
Greece	10,828,138	1,643,477	7,136,878	2,047,782	4,009,513	792,216	1,808,290	73,025	1,321,767
Hungary	9,927,583	1,765,058	6,636,188	1,526,337	3,810,173	942,461	1,419,344	197,435	1,250,933
Ireland	4,253,340	941,700	2,835,179	476,461	1,494,000	326,500	501,965	119,025	546,510
Iceland	281,817	78,893	176,506	26,418	104,685	25,262	27,502	9,035	42,280
Italy	58,839,605	8,799,229	38,026,793	12,013,583	23,907,410	6,851,696	9,157,601	636,373	7,261,741
Lithuania	3,389,407	595,433	2,255,037	538,937	1,326,551	373,219	397,332	72,507	483,492
Luxembourg	451,387	88,010	301,151	62,226	182,860	52,846	62,042	6,000	61,971
Latvia	2,249,039	364,142	1,516,631	368,266	856,874	208,973	302,153	46,577	293,521
Netherlands	16,237,968	3,166,257	10,771,522	2,300,189	7,146,088	2,498,086	2,493,229	234,477	1,919,879
Norway	4,602,262	953,564	2,952,756	695,942	2,101,694	871,295	599,855	113,522	496,055
Poland	37,925,985	6,492,843	26,250,536	5,182,606	13,318,760	3,290,217	4,273,567	395,116	5,150,441
Portugal	10,607,674	1,694,283	7,046,651	1,866,740	3,829,465	640,547	1,595,464	109,058	1,480,475
Sweden	9,153,151	1,870,151	5,781,016	1,501,984	4,344,671	1,792,642	1,259,193	259,256	1,025,979
Slovenia	2,005,885	303,331	1,383,967	318,586	710,818	145,078	272,712	24,830	268,197
Slovakia	5,388,751	853,000	3,820,762	714,990	1,872,687	453,877	638,538	54,574	724,700
United Kingdom	59,772,192	11,503,490	39,021,474	9,247,229	25,528,775	7,752,949	9,675,802	1,609,747	5,779,741
Total	463,352,111	78,430,196	306,588,097	78,333,818	193,009,927	58,485,889	70,442,930	8,354,319	54,372,664

We estimate household poverty considering the equivalised total disposable income obtained using the modified OECD equivalence scale.[9] This allows to take into account that larger households can exploit economies of scale in housing and in the consumption of goods and services.

As it is typical in poverty studies for rich countries, we endorse a relative concept of poverty.[10] This is not incompatible with an "absolute" view of deprivation, as long as the minimum amount of resources which are necessary to avoid social exclusion rises with general prosperity (Sen, 1983 and 1987). In particular, for each country we calculate the poverty line as the 60 per cent of the country median equivalised income and define as poor persons those living in households with a total equivalised disposable income lower than this threshold.[11] Robustness of the poverty rates is tested considering two alternative poverty lines (respectively equal to 50 and 70 per cent of the national median income).

Even controlling for family composition, other comparability problems remain. First of all, for a given level of income and for a given household composition, well-being also depends on personal characteristics, such as health, education and the amount of available leisure time. Secondly, we ignore in-kind transfers, which in many countries are quite sizable (Commission of the European Communities, 2002; Garfinkel *et al.*, 2006). Thirdly, we do not take into account the flow of benefits stemming from the ownership of durable consumption goods and real assets (however, we do try to capture some of the effects of real-asset ownership by taking into account imputed rents).

Finally, while in most of the paper we consider a nation-specific poverty line (as it is customary in cross-country studies), we also provide some poverty statistics using both a single EU-wide poverty line and a mixed poverty line (built as a geometric mean of the national and the EU-wide thresholds). These estimates are to be considered with extreme caution, given the many conceptual and empirical difficulties implied by this kind of exercises (see, e.g., Atkinson, 1998; Brandolini, 2007; Mogstad *et al.*, 2007).

3 A bird's eye on poverty in Europe

3.1 The incidence of poverty

Poverty rates among households differ widely across EU countries. They range from 8.6 per cent in the Czech Republic to 22.8 per cent in Latvia (Table 3). Four countries have poverty rates near or below 10 per cent (Czech Republic, the Netherlands, Slovakia and Iceland); eleven countries have rates between 11 and 15 per cent (Denmark, France, Sweden, Norway, Luxembourg, Belgium, Hungary, Slovenia, Finland, Austria and Germany); the remaining ones have poverty rates above 15 per cent. Eleven countries have poverty rates above the EU average (16.2 per cent).

The relative position of countries in terms of poverty rates does not change significantly if we use poverty lines equal to 50 and 70 per cent of the median equivalised disposable income (Table 4). The only exceptions are represented by Finland, Latvia, Austria and, to a lesser extent, Ireland and France, suggesting that in those countries there is a high number of people concentrated around the poverty line.

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[9] This scale assigns a unitary weight to the head of the household, a weight of 0.5 to each household component aged 14 and over at the end of the income reference period and a weight of 0.3 to members aged 13 or less. It is the scale endorsed by the EU in the construction of the indicators used in the OMC on Social inclusion and social protection.

[10] Relative poverty is also one of the indicators agreed upon by EU member states in the context of the OMC on Social protection and inclusion.

[11] This is consistent with the indicators used in the OMC on Social inclusion and social protection.

Table 3

Poverty Rates

Countries	Poverty Line: 60% of Median Income	Robustness Exercises		Unique Poverty Line[1]	Hybrid Poverty Line[2]
		50% of Median Income	70% of Median Income		
Austria	14.7	7.0	22.1	5.0	8.0
Belgium	14.2	7.3	22.7	7.7	9.9
Cyprus	19.6	11.9	27.1	14.0	14.0
Czech Republic	8.6	4.2	16.3	90.8	50.3
Germany	14.9	8.7	22.5	9.3	10.9
Denmark	12.1	6.5	20.5	3.0	4.4
Estonia	16.5	9.9	27.8	92.1	57.6
Spain	20.4	13.2	28.0	30.1	24.4
Finland	14.6	6.7	24.4	3.7	6.2
France	13.1	7.3	21.0	8.4	10.0
Greece	19.8	13.1	27.5	40.2	28.4
Hungary	14.5	9.0	22.3	93.3	61.1
Ireland	18.7	8.7	28.4	4.6	8.9
Iceland	10.3	5.4	18.7	1.3	3.2
Italy	19.6	12.5	27.0	17.9	18.4
Lithuania	18.2	11.5	27.4	96.8	69.9
Luxembourg	13.9	8.0	21.7	1.0	3.7
Latvia	22.8	12.7	30.5	95.7	67.0
Netherlands	10.0	5.3	19.0	4.8	6.4
Norway	13.4	6.9	21.4	2.2	3.7
Poland	17.7	11.2	25.8	95.3	67.5
Portugal	19.0	12.0	27.5	60.2	35.5
Sweden	13.2	8.1	20.7	6.4	8.3
Slovenia	14.5	8.0	21.8	39.6	20.8
Slovakia	10.1	5.6	17.5	97.5	69.4
United Kingdom	18.8	11.8	27.2	8.1	12.2
Min	8.6	4.2	16.3	1.0	3.2
Max	22.8	13.2	30.5	97.5	69.9
EU average	16.2	9.8	24.1	24.5	20.6
All countries average	16.2	9.7	24.1	24.3	20.4

[1] It is a poverty line calculated as 60 per cent of the European equivalised median income. It is equal for all counties.

[2] Calculated as $pl_i^{\alpha} \cdot \overline{p}^{1-\alpha}$, where the first term is the poverty line of each country (equal to 60 per cent of the median equivalised income) and the second term the unique poverty line described in footnote (1). We used $\alpha = ½$.

Table 4

Correlation between Poverty Rates Computed with Different Poverty Lines

Median Income	60%	50%	70%	EU-wide	Hybrid
60%	1.000	0,948	0.970	0.156	0.214
50%		1.000	0.898	0.240	0.294
70%			1.000	0.170	0.224
EU-wide				1.000	0.989
Hybrid					1.000

Table 5

Main Indicators by Welfare Regimes

	Social-democratic	Corporatist	Liberal	Southern	Post-communist
Poverty rates					
Overall	9.8	12.7	16.7	17.6	14.3
0-15	9.9	14.3	20.5	18.8	18.7
16-64	9.4	11.7	14.4	15.0	13.6
65+	11.1	14.5	22.2	29.1	12.1
Poverty rates pre-transfers					
0-15	27.7	22.5	28.4	23.6	30.1
16-64	27.7	28.0	24.5	27.3	30.1
65+	91.6	91.3	87.4	82.3	83.6
Overall	37.1	37.7	33.8	36.0	38.3
Age-bias index					
Old/Working age	4.19	4.07	4.17	3.53	3.78
Child/Working age	0.79	0.35	0.53	0.22	0.52
VEE					
Families with children	52.4	57.8	74.0	46.6	46.4
Families with working-age adults	67.3	71.9	54.1	52.7	58.7
Families with elderly	93.9	91.8	87.6	81.8	85.7

Overall, low levels of poverty rates characterise Social-democratic countries (12.3 per cent on average) and Corporatist countries (14.2 per cent), whereas above EU-average levels of poverty characterize Liberal (18.8 per cent), Southern (19.7 per cent) and Post-communist (15.4 per cent) countries (Table 5).

3.2 The intensity and inequality of poverty

Together with the incidence of poverty (how many are the poor) summarized by the poverty rate, a further dimension of poverty is its "intensity" (how poor are the poor). To capture intensity we computed the widely-used poverty gap, defined as the difference between the average income among poor families and the poverty line, expressed as a percentage of the latter.[12]

Neither the poverty ratios nor the poverty gaps are sensitive to changes in the income distribution among the poor (to the so called "inequality" of poverty). To keep this element into account we also consider a version of the so-called Forster-Greer-Thorbecke index (FGT2).[13] As with the poverty gap, this index can be seen as a weighted sum of the households' poverty gaps. The difference is that the weights are not equal for all: instead, in the summation the gaps of very poor households have bigger weights.

According to our data, poverty gaps in Europe range from around 20 per cent in Finland and Ireland to a maximum of 44 per cent in Norway (Table 6). However, the majority of countries has poverty gaps between 25 and 35 per cent, and the average poverty gap is slightly above 30 per cent. No clear-cut distinction emerges across different groups of countries. The poverty rates and the poverty gaps are weakly correlated: there are some countries with relatively high headcount ratios but relatively low poverty gaps (i.e., Cyprus, Finland and Ireland) and vice versa (*i.e.*, Denmark, Germany, Hungary, the Netherlands, Norway and Sweden) (Table 7). If one disregards outliers (Norway, Belgium and Germany), these considerations are confirmed if one looks at the FGT2 index.

3.3 Poverty and family composition

Behind national differences in poverty rates there can be differences in factors such as family structure and labour market characteristics.

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[12] Sometimes the poverty gap is averaged over the entire population (non-poor have obviously a gap of 0). Indeed the measure we show in the main text does not satisfy some desiderable monotonicity properties (for example, if one of the richest among the poor gets out of poverty, the index may well increase); besides it is not decomposable among subgroups (see the next footnote). However, the latter measure can be obtained as the product of the former times the headcount ratio:

$$\frac{\sum_i gap(i)}{Population} = \frac{\sum_i gap(i)}{\#\,Poor} \times \frac{\#\,Poor}{Population}$$

[13] Foster-Greer-Thoerbeke indices are calculated as:

$$\frac{\sum_i gap(i)^a}{Population}$$

where a is greater than or equal to 0 (if $a = 0$ one has the headcount ratio, with $a = 1$ one has the poverty gap). The poverty indices which are used more frequently in applied work belong to two main families: the family of Sen indices, which have the nice property to be sensitive to inequality among the poor, and the Foster-Shorrocks indices, which have the property of being decomposable among population subgroups. The poverty ratio and the poverty gap (averaged over the whole population) belong to the second family but not to the first. Foster-Greer-Thoerbeke indices with $a > 1$ share both set of properties. In our calculation we set $a = 2$ (for poverty indices a classic reference is Sen, 1997).

Table 6

Poverty Gaps

Countries	**Poverty Gap**	**Forster-Greer-Thorbecke Index** (FGT2)
Austria	24.8	1.7
Belgium	28.9	11.8
Cyprus	24.2	1.7
Czech Republic	21.2	0.7
Germany	35.6	13.3
Denmark	35.4	5.9
Estonia	29.6	2.8
Spain	30.7	3.3
Finland	20.5	1.2
France	24.6	1.5
Greece	32.2	5.5
Hungary	32.6	4.5
Ireland	19.0	1.2
Iceland	26.7	2.6
Italy	32.7	4.0
Lithuania	32.5	3.3
Luxembourg	26.7	2.8
Latvia	31.7	5.2
Netherlands	33.4	4.4
Norway	44.0	80.5
Poland	29.8	2.6
Portugal	28.8	2.6
Sweden	35.2	3.1
Slovenia	25.3	1.6
Slovakia	25.4	1.1
United Kingdom	30.5	3.2
Min	19.0	0.7
Max	44.0	80.5
EU average	30.7	5.3
All countries average	30.8	6.1

Table 7

Correlation among Poverty Indicators

	Poverty Rate	**Poverty Gap**	**FGT2**	**Poverty Rate × Poverty Gap**
Poverty rate	1.000	0.070	-0.100	0.810
Poverty gap		1.000	0.630	0.620
FGT2			1.000	0.260
Poverty rate × Poverty gap				1.000

Table 8

Poverty Rates by Household Types

Countries	One-person Households	Households with Two or More Adults Without Children	One-adult Households with Children	Two or More Adults with Children	Total
Austria	21.8	9.7	26.8	10.2	14.7
Belgium	19.9	11.3	25.2	8.6	14.2
Cyprus	40.9	25.0	26.6	7.0	19.6
Czech Republic	13.4	3.3	33.7	8.7	8.6
Germany	21.5	10.4	23.3	8.6	14.9
Denmark	20.5	5.2	9.9	5.0	12.1
Estonia	26.7	8.3	33.9	10.1	16.5
Spain	34.1	16.0	35.3	19.4	20.4
Finland	28.3	5.6	13.2	5.3	14.6
France	17.7	9.7	23.2	10.2	13.1
Greece	23.9	17.3	26.3	20.6	19.8
Hungary	12.2	18.3	35.1	16.8	14.5
Ireland	15.2	22.6	38.9	11.1	18.7
Iceland	5.9	11.5	25.7	7.9	10.3
Italy	16.8	29.0	27.5	20.9	19.6
Lithuania	9.8	20.9	33.3	15.1	18.2
Luxembourg	9.1	17.7	44.5	14.9	13.9
Latvia	19.3	30.3	31.3	15.9	22.8
Netherlands	5.3	11.4	27.3	8.3	10.0
Norway	4.3	13.6	14.1	5.3	13.4
Poland	14.7	28.7	29.6	22.5	17.7
Portugal	40.6	36.1	32.7	14.6	19.0
Sweden	3.9	11.3	25.5	8.5	13.2
Slovenia	16.1	20.1	17.7	7.1	14.5
Slovakia	7.0	12.6	23.8	11.1	10.1
United Kingdom	16.2	29.2	36.2	14.4	18.8
Min	13.4	3.3	9.9	5.0	8.6
Max	44.6	25.0	44.5	22.5	22.8
EU average	22.5	11.2	27.8	14.3	16.2
All countries average	22.5	11.2	27.6	14.2	16.2

Figure 1

Poverty Rates by Family Type

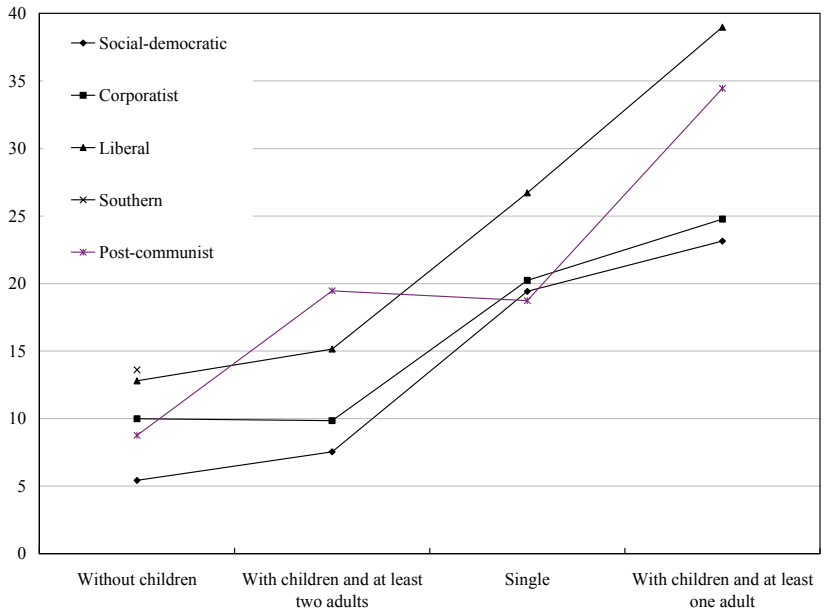
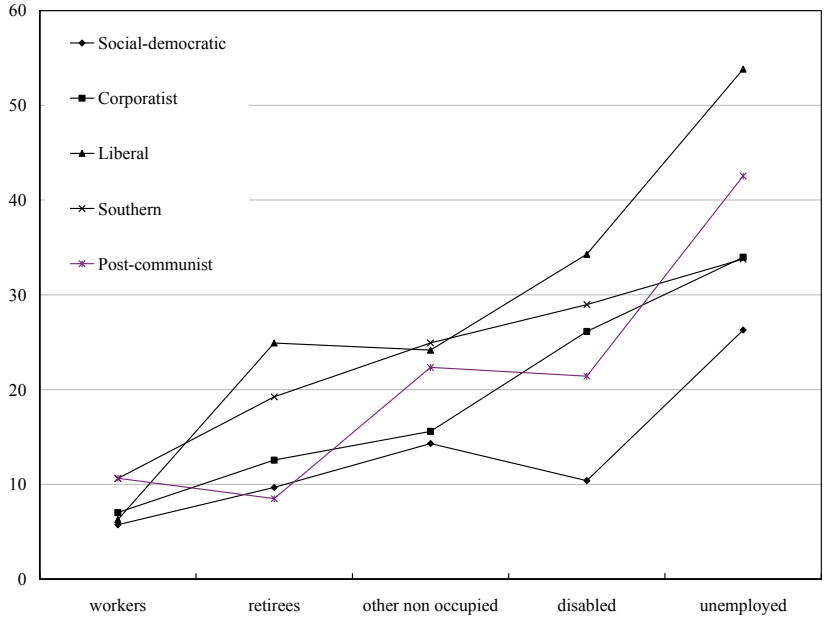


Figure 2

Poverty Rates by Economic Status



Indeed, poverty risks differ among household types (Table 8 and Figure 1). As one could expect, they are significantly higher than the average for one-person households (22.5 per cent) and especially for single-parent families (27.6 per cent).[14] Households with one adult are often those made up of younger or older people which are more likely to be in poverty conditions; in households with two adults there is generally income pooling which represent a cushion against temporary income shocks.

There are however huge differences across Europe. There are countries in which the poverty rate among one-adult households with dependent children is lower, or only slightly higher than the overall poverty rate (Denmark, Finland and Norway). At the other extreme, there are countries in which the poverty rate for single parent households is almost four times (Czech Republic) or three times (Luxemburg) higher than the overall average.

3.4 Poverty and occupation status

Poverty risks depend also on the

[14] We defined as dependent children household members aged 17 or less and economically inactive members aged between 18 and 24.

occupational status. We grouped individuals in five categories: workers, retirees, disabled, unemployed and other non-occupied individuals. As expected, workers have the lowest poverty rate (8.3 per cent on average for the European countries), followed, in order, by retirees (14.8 per cent), other non-occupied individuals (20.6 per cent), disabled (24.6 per cent) and unemployed (36.7 per cent) (Table 9 and Figure 2).

Poverty rates vary substantially between and within countries. For example, the poverty risks for workers range from 0.1 per cent in Lithuania to 15 per cent in Poland; those for retirees range from 3.9 per cent in the Czech Republic to 46.3 per cent in Cyprus. In some countries retirees have a poverty rate which is close to the rate of workers (Czech Republic, Sweden and Slovakia); in some other countries they are actually better-off (Hungary, Luxembourg, Netherlands and Poland) (Table 9).

Similar differences arise for the unemployed. Unsurprisingly, they always display higher poverty rates. In the Czech Republic their poverty rate is more than ten times the poverty rate of workers. In the United Kingdom, Finland, and Ireland it is more than seven times. In Cyprus, Spain, Greece, Iceland, Italy, Poland, Portugal and Sweden it is between two and four times higher.

4 The age profile of poverty

Children and elderly people tend to be poorer than individuals in working age. In Europe the poverty rate is 17.9 per cent for the young (less than 16-years-old) and 17.4 per cent for the old (more than 64-years-old). It is 14.1 per cent for the population in working age (between 16 and 64 years old). Therefore, on average, poverty among the young and among the old is about one quarter higher than among the working age people.

Table 10 shows that European countries differ not only with respect to the incidence of poverty, but also with respect to its age-profile. In four countries the risk of poverty among young people is even lower than that for the working age population (Cyprus, Denmark, Finland and Norway). In other countries the ratio between the two is quite high.

Looking at different groups of countries, poverty among the young is higher than among the working age people by 42 per cent in Liberal countries, 25 per cent in Southern countries, 22 per cent in Corporatist welfare states, 5 per cent in Social-democratic countries. It is 37 per cent higher in Post-communist states (Figure 3).

As for elderly people, in nine countries, most of which Post-communist (the Czech Republic, Estonia, Hungary, Lithuania, Luxembourg, the Netherlands, Poland, Sweden and Slovakia) their poverty rates are below national average.

Poverty among the elderly is higher than among the working age people by 66 per cent in Liberal countries, 45 per cent in Southern countries, 19 per cent in Corporatist countries, and 2 per cent in Social-democratic countries. It is 5 per cent lower than that among working age people in Post-communist states.

To sum up, Liberal and Southern welfare states display both a higher overall poverty rate, and a more pronounced V-shaped age profile of poverty, with respect to Corporatist and Social-democratic welfare states. In Post-communist countries the age profile of poverty is monotonically decreasing.

Table 9

Poverty Rates by Occupation Status

Countries	Workers	Unemployed	Retirees	Disabled	Other Unemployed
Austria	7.0	32.1	12.8	15.2	17.2
Belgium	4.3	31.5	15.6	24.7	16.3
Cyprus	6.7	20.3	46.3	28.0	10.9
Czech Republic	3.3	35.9	3.9	10.7	13.5
Germany	7.6	38.4	12.7	29.7	14.3
Denmark	4.4	20.2	8.6	6.4	15.1
Estonia	6.5	43.9	15.8	43.2	17.0
Spain	10.2	30.3	23.4	28.3	24.8
Finland	4.3	31.1	15.2	14.8	11.2
France	6.5	28.3	11.9	23.7	16.8
Greece	14.1	29.3	22.8	39.3	22.7
Hungary	8.3	43.9	7.8	21.5	23.7
Ireland	5.2	37.5	20.1	37.2	21.5
Iceland	6.3	21.4	10.5	5.4	12.7
Italy	10.4	39.8	16.0	28.2	26.0
Lithuania	0.1	45.1	15.7	23.8	21.3
Luxembourg	10.9	45.2	7.5	26.4	18.0
Latvia	9.8	49.8	25.9	30.4	23.1
Netherlands	5.8	28.0	5.6	10.0	14.0
Norway	5.4	24.4	14.6	9.7	12.8
Poland	15.0	44.7	7.9	22.6	25.8
Portugal	10.6	25.1	21.0	26.9	22.0
Sweden	7.3	23.5	9.6	10.9	17.1
Slovenia	4.4	27.1	14.4	38.6	10.2
Slovakia	6.1	34.9	6.7	8.6	14.1
United Kingdom	6.4	55.9	25.1	34.1	24.4
Min	0.1	20.2	3.9	5.4	10.2
Max	15.0	55.9	46.3	43.2	26.0
EU average	8.3	36.8	14.8	24.9	20.7
All countries average	8.3	36.7	14.8	24.6	20.6

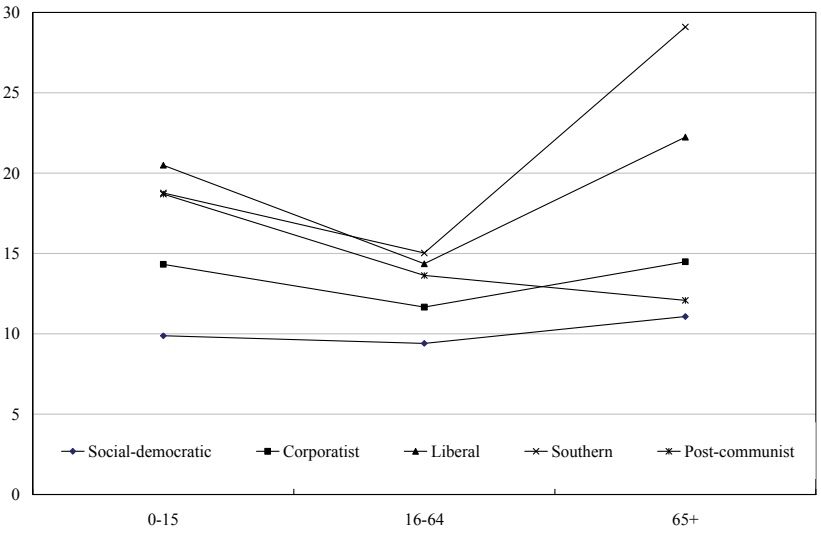
Table 10

Poverty Rates by Age

Countries	0-15	16-64	65+	Total
Austria	14.6	11.1	15.7	12.4
Belgium	12.6	10.6	19.6	12.4
Cyprus	8.8	9.5	48.1	14.0
Czech Republic	14.5	8.0	3.7	8.4
Germany	11.9	11.8	13.3	12.1
Denmark	7.2	9.2	9.9	8.9
Estonia	16.0	13.2	13.6	13.7
Spain	22.9	15.5	28.7	18.8
Finland	6.6	9.5	16.6	10.1
France	12.5	11.0	15.1	12.0
Greece	21.3	18.1	24.3	19.8
Hungary	24.1	14.5	8.8	15.3
Ireland	18.4	14.0	19.8	15.6
Iceland	11.7	8.3	9.6	9.4
Italy	23.1	17.3	20.6	18.9
Lithuania	21.0	16.6	14.9	17.1
Luxembourg	20.0	13.9	8.7	14.4
Latvia	21.8	17.4	22.6	19.0
Netherlands	13.4	9.1	5.8	9.5
Norway	7.5	9.4	14.6	9.8
Poland	27.7	21.1	8.7	20.5
Portugal	17.7	14.7	23.7	16.8
Sweden	12.9	11.0	9.8	11.2
Slovenia	10.1	8.4	17.3	10.1
Slovakia	14.4	9.8	6.9	10.1
United Kingdom	22.5	14.7	24.6	17.7
Min	6.6	8.0	3.7	8.4
Max	27.7	21.1	48.1	20.5
EU average	18.0	14.1	17.4	16.4
All countries average	17.9	14.1	17.4	16.4

Figure 3

Poverty Rates by Age Class



These results are substantially confirmed by a multivariate analysis (Table 11).[15] Estimating logistic regressions in which the probability of being poor is related to the age-group of the individual and its regime, allowing for interaction terms between the two, it appears that: (1) elderly people are poorer that working age people in Southern and especially Liberal countries, while their position is not much worse than those of the middle-aged in Corporatist countries. It is virtually identical in Social-democratic countries, while it is actually better in post-communist countries; (2) the relative conditions of children appear to be worse than those of working age people in all regimes. Their relative position is however somewhat better in Social-democratic and Corporatist countries, while it is especially critical in liberal countries.

Therefore, it remains true that the age profile of poverty is flatter in Social-democratic and Corporatist countries, whereas its V shaped profile is particularly pronounced in Liberal and Southern countries. Post-communist countries are somewhat a class of their own, due to the particularly good relative position of the elderly.

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[15] The underlying assumptions are: (i) the difference between the national poverty threshold and the equivalized household income is measured with some noise, so that it is equal to the "real" difference plus an i.i.d. error term distributed according to a logistic distribution function; (ii) the "real" difference depends linearly on the regime type, and on the age group at which the individual belongs (in some specification the age group is decomposed into a finer partition, and the specification allows for interaction terms):

$$P_i \equiv \text{Prob}(\text{poverty threshold} - \text{equivalized household income of person i} > 0) = \frac{e^{c+\sum_r \alpha_r regime_{ir} + \sum_a \beta_a age_{ia} + \sum_a \sum_r \gamma_{ra} regime_{ir} age_{ia}}}{1+e^{c+\sum_r \alpha_r regime_{ir} + \sum_a \beta_a age_{ia} + \sum_a \sum_r \gamma_{ra} regime_{ir} age_{ia}}}$$

where $regime_{i,r}$ (viz. $age_{i,a}$) is equal to 1 if i belongs to regime r (viz.: i belongs to the age group a), and 0 otherwise. So the odd-ratio of being in poverty for a person in regime r and age group a is: $O(r,a) \equiv \frac{P_i}{1-P_i} = e^{c+\alpha_r+\beta_a+\gamma_{ra}}$. An index of the relative disadvantage of group a' with respect to group a in regime r is given by: $\frac{O(r,a')}{O(r,a)} = e^{\beta_{a'}+\gamma_{ra'}-\beta_a-\gamma_{ra}}$, and to compare the relative disadvantage of group a' one can look at:

$$\frac{\frac{O(r,a')}{O(r,a)}}{\frac{O(r',a')}{O(r',a)}} = \frac{e^{\beta_{a'}+\gamma_{ra'}-\beta_a-\gamma_{ra}}}{e^{\beta_{a'}+\gamma_{r'a'}-\beta_a-\gamma_{r'a}}} = e^{\gamma_{ra'}-\gamma_{ra}-\gamma_{r'a'}+\gamma_{r'a}}$$

Notice that only the interaction terms matter.

Table 11

Risk To Be Poor with Respect to Age and Welfare Regime

Poors	Coefficient	Standard Error	*t*	*P* > | *t* |	95% Confidence Interval	
Age1	0.37548	0.02775	13.53	0.000	0.32109	0.42987
Age3	0.46378	0.02312	20.06	0.000	0.41847	0.50910
Corporatist	–0.42636	0.02322	–18.36	0.000	–0.47188	–0.38085
Liberal	–0.13760	0.02723	–5.05	0.000	–0.19097	–0.08422
Social-democratic	–0.61737	0.02786	–22.16	0.000	–0.67198	–0.56277
Post-communist	0.0154	0.01728	0.89	0.372	–0.01844	0.04930
Age1 × Social-democratic	–0.22845	0.05369	–4.25	0.000	–0.33369	–0.12321
Age3 × Social-democratic	–0.44004	0.05643	–7.80	0.000	–0.55065	–0.32943
Age1 × Corporatist	–0.28172	0.04622	–6.09	0.000	–0.37232	–0.19113
Age3 × Corporatist	–0.19432	0.04438	–4.38	0.000	–0.28130	–0.10733
Age1 × Liberal	0.134318	0.05029	2.67	0.008	0.03576	0.23288
Age3 × Liberal	0.166917	0.04980	3.35	0.001	0.06931	0.26452
Age1 × Post-communist	0.04586	0.03553	1.29	0.197	–0.02377	0.11550
Age3 × Post-communist	–1.15478	0.03865	–29.88	0.000	–1.23053	–1.07903
Constant	–1.62457	0.01304	–124.57	0.000	–1.65013	–1.59901

Logistic regression. Number of observations = 534,997. Wald χ^2 (14) = 3,797.31. Prob.> χ^2 = 0.0000.

Log pseudo-likelihood =-224,126.6. Pseudo R^2 = 0.0162.

If one takes a further step and distinguishes, inside the working age population, different working conditions, other interesting results emerge. It turns out that younger pensioners (*i.e.*, less than 65-years-old) are better off than the elderly in the south, they are equally well off in the social-democratic regime, and they are worse off in the remaining regimes (Table 12). This might be due to the generous early retirement schemes which characterize several of those countries (e.g., France, Germany and Italy).

Age seems to matter for poverty gaps as well, but the direction is opposite. For all groups of countries analysed in the paper poverty gaps have an hump-shaped curve if plotted against age classes. Middle-age individuals, if poor, are poorer than the other individuals.

Table 12

Risk To Be Poor with Respect to Age, Occupational Status and Welfare Regime

Poors	Coefficient	Standard Error	*t*	*P* > | *t* |	95% Confidence Interval	
Age1	0.8881	0.0319	27.85	0.000	0.8256	0.9506
Age2 × unemployed	1.4662	1.4662	34.04	0.000	1.3817	1.5506
Age2 × retiree	0.0649	0.0649	1.06	0.288	–0.0549	0.1846
Age2 × disabled	1.2333	1.2333	13.52	0.000	1.0544	1.4121
Age2 × non-occupied	1.0698	1.0698	35.85	0.000	1.0113	1.1283
Age3	0.9764	0.9764	34.94	0.000	0.9216	1.0311
Corporatist (C)	–0.5031	–0.5031	–13.67	0.000	–0.5752	–0.4310
Liberal (L)	–0.5749	–0.5749	–12.08	0.000	–0.6683	–0.4816
Social-democratic (SD)	–0.6619	–0.6619	–15.75	0.000	–0.7443	–0.5795
Post-communist (PC)	0.0176	0.0176	0.65	0.519	–0.0359	0.0712
Age1 × SD	–0.1839	–0.1839	–2.95	0.003	–0.3059	–0.0619
Age2 × unemployed × SD	0.3020	0.3020	2.96	0.003	0.10197	0.5021
Age2 × retiree × SD	–0.3915	–0.3915	–2.24	0.025	–0.7335	–0.0494
Age2 × disabled × SD	–0.5620	–0.5620	–3.97	0.000	–0.8392	–0.2849
Age2 × non-occupied ×	0.3954	0.3954	6.33	0.000	0.2730	0.5178
Age3 × SD	0.3955	–0.3955	–6.12	0.000	–0.5221	–0.2688
Age1 × C	–0.2050	–0.2050	–3.77	0.000	–0.3114	–0.0985
Age2 × unemployed × C	0.5430	0.5430	7.56	0.000	0.4022	0.6838
Age2 × retiree × C	0.3231	0.3231	3.22	0.001	0.1262	0.5199
Age2 × disabled × C	0.4227	0.4227	3.36	0.001	0.1764	0.6691
Age2 × non-occupied × C	0.0443	.04427	0.78	0.433	–0.0664	0.1550
Age3 × C	–0.1176	–0.1176	–2.23	0.026	–0.2210	–0.0141
Age1 × L	0.5717	0.5717	8.98	0.000	0.4469	0.6964
Age2 × unemployed × L	1.4155	1.4155	11.74	0.000	1.1792	1.6518
Age2 × retiree × L	1.4336	1.4336	12.64	0.000	1.2112	1.6560
Age2 × disabled × L	0.8814	0.8814	6.81	0.000	0.6279	1.1350
Age2 × non-occupied × L	0.6043	0.6043	9.21	0.000	0.4756	0.7329
Age3 × L	0.6043	0.6043	9.55	0.000	0.4802	0.7283
Age1 × PC	0.0437	0.0437	1.06	0.291	–0.0374	0.1247
Age2 × unemployed × PC	0.3535	0.3535	6.49	0.000	0.24668	0.4606
Age2 × retiree × PC	–0.3926	–0.3926	–4.95	0.000	–0.5482	–0.2370
Age2 × disabled × PC	–0.3130	–0.3130	–3.08	0.002	–0.5123	–0.1136
Age2 × non-occupied ×	–0.1540	–0.1540	–3.69	0.000	–0.2358	–0.0722
Age3 × PC	–1.1570	–1.1570	–26.26	0.000	–1.2433	–1.0701
Constant	–2.1371	–2.1372	–104.71	0.000	–2.1772	–2.0972

Logistic regression. Number of observations = 534,997. Wald χ^2 (34) =12,501.54. Prob.> χ^2 = 0.0000.

Log pseudo-likelihood = –213,392.62. Pseudo R^2 = 0.0633.

5 Public policies and the age-profile of poverty

In the previous chapter, we documented that poverty and its age-profile differ markedly across welfare regimes. Our next step is to show that social policies have a major role in shaping these differences.

5.1 Measuring the anti-poverty effectiveness of expenditures

The amount of transfers received by each family can be computed using EU-SILC data (Table 13). Reassuringly, there is a very high correlation (above 80 per cent) between social expenditure as taken from our micro-data, and the amount of social expenditures recorded in the national accounts by Eurostat (Table 14).

The amount of transfers can be used to compute some straightforward measure of the anti-poverty effectiveness of public policies. In particular, one can compare actual poverty with poverty computed in absence of government transfers (Tables 15 and Figure 4). It appears that anti-poverty effectiveness, defined as the ratio between the two (so that a higher value of the index means lower effectiveness), varies significantly across countries (Table 16).[16] The index is 58 per cent in Cyprus, while it is below 25 per cent in Netherlands, Norway, Finland and Denmark.

Anti-poverty effectiveness of public spending is highest in Social-democratic and Corporatist countries: the above mentioned index takes values, respectively, equal to 27 and 34 per cent, while effectiveness is much lower in Liberal and Southern welfare states (in both cases, the index is around 50 per cent).

Anti-poverty effectiveness can be also calculated for population subgroups. As with overall effectiveness, we find big differences. For example, in the case of children, poverty after transfers is just 22 per cent of poverty pre-transfer in the case of Finland, while it is still 87 per cent in the case of Greece. Concerning the elderly, the maximum reduction in poverty is achieved in the Czech Republic: post-transfers poverty is just 4.2 per cent of pre-transfer poverty; the minimum reduction is in Cyprus, where the index is equal to 57 per cent.

Across regimes, differences in the age-profile of poverty before social transfers are quite small (Figure 4). For example, while the post-transfer poverty rate of children in the liberal regime is on average twice that in the Social-democratic regime, the pre-transfer poverty rates are respectively equal to 28.4 and 27.7 per cent (Table 5). For the elderly, pre-transfers poverty rate are very high (above 80 per cent) in all regimes.

Therefore, most of the cross-regimes differences in the actual age-profile of poverty are attributable to differences in effectiveness. Social-democratic states are the most effective in reducing both child and old age poverty (with an index of 37 and 12 per cent respectively), while the Southern countries are the less effective (the index is equal to 79 and 35 per cent respectively).

As a more formal way to capture the link between public transfers and (the age-profile of) poverty, we run a logistic regression in which the individual probability to exit the poverty status thanks to government transfers is related to the age class and the welfare regime of the individual's country, also allowing for regime-age interaction terms. There are two main results (Tables 18 and 19):

- with respect to the other groups of the population, children have the highest probability to exit poverty in Social-democratic countries and the lowest in the Southern ones, while their probability to be in poverty before transfers is the same of that of the working age population in both groups of countries;

[16] The percentage reduction in the poverty rate has been used, among others, by Moller *et al.* (2003).

Table 13

Social Transfers in EU-SILC

Countries	**Social Transfers** *(percentage of national disposable income)*	**Average Social Transfers by Family Type** *(euros per equivalent household members)*				
		Families with Children	**Families with Working-age Adults**	**Families with Elderly**	**Young/ Working Age**	**Old/ Working Age**
Austria	10.33	835	3,662	14,755	0.23	4.03
Belgium	10.68	2,867	4,092	12,027	0.70	2.94
Cyprus	4.72	377	2,185	8,011	0.17	3.67
Czech Republic	8.45	375	922	3,435	0.41	3.73
Germany	13.12	1,099	3,292	14,541	0.33	4.42
Denmark	15.64	4,670	6,271	22,833	0.74	3.64
Estonia	6.32	137	387	2,080	0.35	5.37
Spain	7.14	532	1,657	6,815	0.32	4.11
Finland	13.34	3,802	4,710	16,259	0.81	3.45
France	12.12	1,281	4,175	15,550	0.31	3.72
Greece	8.05	284	1,870	6,278	0.15	3.36
Hungary	11.05	850	1,013	3,182	0.84	3.14
Ireland	5.24	1,591	3,335	11,538	0.48	3.46
Iceland	5.71	3,765	2,918	19,362	1.29	6.64
Italy	10.28	638	3,176	10,842	0.20	3.41
Lithuania	7.47	320	386	1,618	0.83	4.19
Luxembourg	7.94	962	4,758	25,019	0.20	5.26
Latvia	5.65	155	302	1,332	0.51	4.41
Netherlands	13.70	2,174	5,179	19,685	0.42	3.80
Norway	12.40	6,142	6,744	24,355	0.91	3.61
Poland	9.61	289	926	2,890	0.31	3.12
Portugal	8.45	504	1,829	5,691	0.28	3.11
Sweden	10.88	1,954	3,412	13,696	0.57	4.01
Slovenia	8.12	571	2,047	5,986	0.28	2.92
Slovakia	8.80	537	811	2,687	0.66	3.31
United Kingdom	7.93	1,660	2,857	13,959	0.58	4.89
Min		137	302	1,332	0.2	2.9
Max		6,142	6,744	25,019	1.3	6.6
All country average		1,476	2,804	10,939	0.5	3.9

Table 14

Public Expenditure from National Accounts

Countries	Total Government Expenditure *(percent of GDP)*	Health	Education	Social Protection						Other Non-age-specific Expenditure
				Sickness and Disability Benefits	Old-age Benefits	Survivors Benefits	Family Allowances	Unemployment Benefits	Housing Allowances	
AT	49.4	7.5	5.2	1.9	12.0	1.6	2.4	1.3	0.0	17.4
BE										
CY	43.4	3.1	7.2	0.2	4.4	0.1	1.9	0.8	0.1	25.6
CZ	43.8	7.2	4.9	2.8	6.6	0.7	1.5	0.3	0.1	19.7
DE	45.3	6.3	4.0	2.6	9.7	2.1	2.2	2.7	0.1	15.8
DK	51.6	7.1	7.7	4.8	7.6	0.0	5.0	2.6	0.7	16.1
EE	34.2	4.3	6.2	1.8	5.5	0.1	1.6	0.3	0.0	14.4
ES	38.5	5.7	4.3	2.1	6.2	1.9	0.5	1.6	0.1	16.2
FI	48.7	6.8	6.0	4.3	8.9	0.7	2.6	2.3	0.3	16.8
FR										
GR	42.2	5.0	2.9	1.8	12.2	1.3	0.6	0.4	0.1	17.9
HU	51.9	5.6	5.8	3.8	6.5	1.2	2.4	0.5	1.1	25.1
IE	34.1	7.8	4.3	1.8	2.7	0.9	2.1	0.9	0.6	12.9
IS										
IT	49.9	7.0	4.5	1.7	12.2	2.6	1.0	0.5	0.0	20.3
LT	33.6	4.6	5.4	2.4	4.7	0.4	1.0	0.4	0.1	14.7
LU										
LV										
MT	43.6	6.4	5.6	1.9	7.4	1.9	1.1	0.6	0.2	18.5
NL										
NO	40.5	6.9	5.4	5.8	4.9	0.3	3.1	0.4	0.1	13.6
PL	43.8	4.6	6.0	2.5	9.9	1.8	1.2	1.0	0.1	16.7
PT	46.3	7.1	7.1	1.6	9.5	1.6	1.1	1.2	0.0	17.0
SE	54.1	6.8	7.0	5.7	10.6	0.5	2.6	2.0	0.4	18.5
SI	44.5	6.0	6.3	2.7	10.2	0.3	1.9	0.7	0.0	16.4
SK										
UK	44.2	7.2	6.1	2.7	7.3	0.1	2.7	0.3	1.1	16.7
Simple average	43.4	6.1	5.3	2.7	7.4	1.0	1.9	1.0	0.2	17.7

Source: Calculations based on Eurostat data. Data refer to 2006 except for Ireland (2005). The item "Other Non-age-specific Expenditure" includes general public services, defense, public order, economic affairs, environment protection, housing and community amenities, recreation culture and religion, other non attributable social protection.

Table 15

Poverty Rates by Age in Absence of Social Transfers

Countries	0-15	16-64	65+	Total
Austria	21.3	26.1	87.2	35.5
Belgium	26.6	29.3	90.3	40.0
Cyprus	11.9	17.0	84.0	24.1
Czech Republic	21.9	24.7	88.2	33.2
Germany	21.2	29.8	94.7	40.8
Denmark	27.8	31.2	95.4	40.5
Estonia	21.1	21.8	79.8	31.5
Spain	29.0	29.7	83.0	38.5
Finland	30.2	31.9	93.8	41.6
France	19.8	28.8	95.6	38.3
Greece	24.5	30.8	80.8	39.3
Hungary	47.4	39.3	86.8	48.0
Ireland	25.8	24.1	83.7	31.2
Iceland	25.0	18.0	79.7	25.7
Italy	27.5	30.5	82.2	40.6
Lithuania	32.0	29.1	83.2	38.2
Luxembourg	23.6	25.9	88.6	34.1
Latvia	29.1	28.1	74.4	35.8
Netherlands	27.9	29.4	96.2	38.6
Norway	30.7	30.1	93.8	39.9
Poland	38.8	42.0	87.1	47.6
Portugal	24.9	28.6	81.5	37.3
Sweden	24.6	25.7	90.6	36.1
Slovenia	18.5	26.7	80.7	34.0
Slovakia	32.3	29.4	88.4	37.7
United Kingdom	30.9	24.9	91.1	36.3
Min	11.9	17.0	74.4	24.1
Max	47.4	42.0	96.2	48.0
EU average				
All countries average	26.7	28.2	87.0	37.1

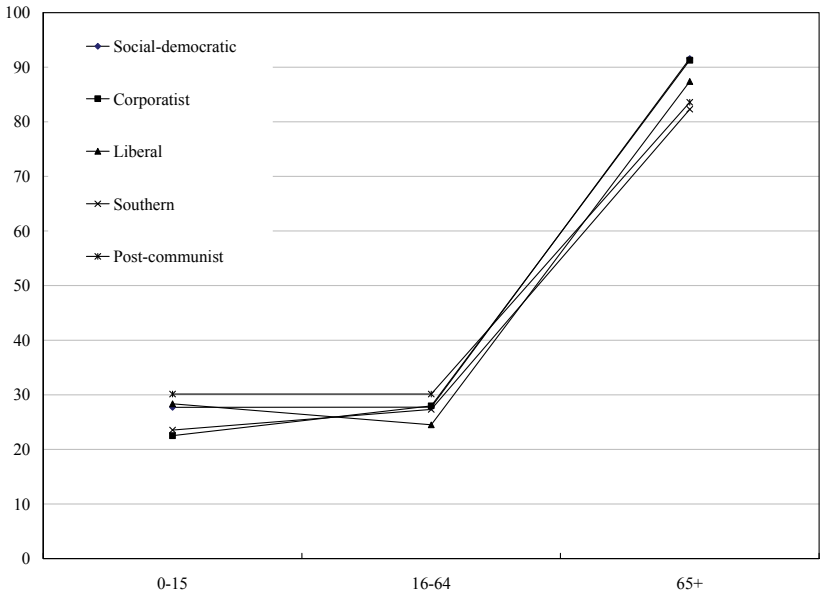
Table 16

Anti-poverty Effects of Transfers
(post-transfer poverty as a fraction of pre-transfer poverty)

Countries	Total	0-15	16-64	65+
Austria	0.35	0.69	0.42	0.18
Belgium	0.31	0.47	0.36	0.22
Cyprus	0.58	0.74	0.56	0.57
Czech Republic	0.25	0.66	0.32	0.04
Germany	0.30	0.56	0.40	0.14
Denmark	0.22	0.26	0.30	0.10
Estonia	0.43	0.76	0.60	0.17
Spain	0.49	0.79	0.52	0.35
Finland	0.24	0.22	0.30	0.18
France	0.31	0.63	0.38	0.16
Greece	0.50	0.87	0.59	0.30
Hungary	0.32	0.51	0.37	0.10
Ireland	0.50	0.71	0.58	0.24
Iceland	0.36	0.47	0.46	0.12
Italy	0.46	0.84	0.57	0.25
Lithuania	0.45	0.66	0.57	0.18
Luxembourg	0.42	0.85	0.54	0.10
Latvia	0.53	0.75	0.62	0.30
Netherlands	0.25	0.48	0.31	0.06
Norway	0.24	0.24	0.31	0.16
Poland	0.43	0.71	0.50	0.10
Portugal	0.45	0.71	0.51	0.29
Sweden	0.31	0.53	0.43	0.11
Slovenia	0.30	0.55	0.32	0.21
Slovakia	0.27	0.44	0.33	0.08
United Kingdom	0.49	0.73	0.59	0.27
Min	0.22	0.22	0.30	0.04
Max	0.58	0.87	0.62	0.57
All countries average	0.38	0.61	0.45	0.19

Figure 4

Poverty Rates by Age-class Pre-transfers



- the elderly have the highest probability to exit poverty thanks to transfers (relative to that of the working age population) in Southern countries and the lowest in the Social-democratic ones, notwithstanding a higher pre-transfer poverty rate with respect to working age people in the first group of countries with respect to the second group.

The next natural step is to understand better why the age-profile of effectiveness differs so much across countries and regimes.To this aim, we investigate its two fundamental determinants: the age distribution and the degree of targeting of social transfers.

5.2 The age-bias of European welfare states: a new measure

As already mentioned, our measure of poverty, as it is common to all the literature on this subject, assumes that all the resources of the individuals are shared with the other members of the household, so that all the members of the household have the same poverty status, determined by the level of the disposable (equivalized) household income. Therefore, old-age pensions might in principle benefit a child, if he lives with the pension recipient. So our first step to compare the age orientation of national social policies is to compute the average amount of transfers which in each country accrues, respectively, to families with children, to families with just working age components (*i.e.*, without children nor elderly) and to families with elderly components, in equivalized terms (in turns out that the number of families in which children and old people live together is negligible).[17] The distribution of transfers across family types is displayed in Table 13.

We propose a new index of pro-old bias of policies, defined as the ratio between the transfers accruing to families with elderly components and those accruing to families with working age people (both divided by the number of equivalent persons in the household). According to such measure, Social-democratic countries, Corporatist and Liberal countries are the more pro-elderly (with an index of about 4.0/4.2) and the Southern ones are the less pro-elderly (with an average index equal to 3.5).

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[17] We considered transfers gross of taxes. Only for the few countries for which this information was not available we used net amounts. This does not affect much our results, because generally transfers are not subject to taxes (as we could ascertain looking to those countries which report both figures).

Table 17

Vertical Expenditure Efficiency

Countries	Families with Children	Families with Working-age Components	Families with Elderly	Total
Austria	55.4	69.9	90.1	81.8
Belgium	46.9	69.6	90.8	76.7
Cyprus	40.1	41.2	79.3	64.1
Czech Republic	55.4	63.4	89.4	77.3
Germany	60.9	73.1	93.5	86.2
Denmark	57.1	76.4	96.9	83.7
Estonia	28.3	46.6	81.9	69.7
Spain	49.8	58.7	83.4	75.1
Finland	49.7	71.3	93.9	79.2
France	57.3	75.7	95.9	86.8
Greece	51.8	57.9	80.8	74.0
Hungary	59.3	65.3	87.1	75.4
Ireland	64.5	50.6	85.3	70.7
Iceland	43.1	45.4	90.0	65.9
Italy	37.6	52.4	81.5	72.1
Lithuania	44.9	54.1	85.5	70.2
Luxembourg	68.4	71.0	88.5	82.3
Latria	40.5	51.3	76.9	64.8
Netherlands	60.1	82.7	95.6	87.3
Norway	53.3	68.6	95.6	78.4
Poland	58.8	70.9	89.4	79.5
Portugal	53.9	53.4	84.1	72.4
Sweden	51.3	59.3	91.6	76.9
Slovenia	41.4	61.3	84.9	72.6
Slovakia	42.2	56.3	90.2	69.9
United Kingdom	83.4	57.6	89.8	80.8
Min	28.3	41.2	76.9	64.1
Max	83.4	82.7	96.9	87.3
All countries average	52.1	61.7	88.2	75.9

Table 18

Probability To Get Out of Poverty with Respect to Age and Welfare Regime

Poor	Coefficient	Standard Errors	*T*	*P* > | *t* |	95% Confidence Interval	
Age1	–3.2624	0.0466	–70.04	0.000	–3.3537	–3.1711
Age2	–2.2007	0.0215	–102.29	0.000	–2.2429	–2.1586
Corporatist	0.9773	0.0318	30.77	0.000	0.9150	1.0395
Liberal	0.3389	0.0374	9.07	0.000	0.2656	0.4121
Social-democratic	1.3377	0.0378	35.37	0.000	1.2636	1.4118
Post-communist	0.8992	0.0261	34.42	0.000	0.8480	0.9504
Age1 × Social-democratic	–0.0200	0.0626	–0.32	0.749	–0.1427	0.1026
Age2 × Social-democratic	–0.8909	0.0427	–20.88	0.000	–0.9745	–0.8073
Age1 × Corporatist	–0.4140	0.0666	–6.22	0.000	–0.5446	–0.2835
Age2× Corporatist	–0.7505	0.0378	–19.88	0.000	–0.8245	–0.6765
Age1 × Liberal	0.1849	0.0777	2.38	0.017	0.0324	0.3373
Age2 × Liberal	–0.6545	0.0479	–13.67	0.000	–0.7484	–0.5607
Age1 × Post-communist	0.0859	0.0557	1.54	0.123	–0.0233	0.1951
Age2 × Post-communist	–0.4333	0.0311	–13.92	0.000	–0.4943	–0.3723
Constant	0.3397	0.0167	20.31	0.000	0.3070	0.3725

Logistic regression. Number of observations = 534,997. Wald χ^2 (14) = 50,987.54. Prob.> χ^2 = 0.0000.

Log pseudo-likelihood = –230,934.65. Pseudo R^2 = 0.2156.

Table 19

Probability of Being Poor before Transfers with Respect to Age and Welfare Regime

Poors	Coefficient	Standard Errors	*t*	*P* > | *t* |	95% Confidence Interval	
Age1	–2.5093	0.0315	–79.570	0.000	–2.5711	–2.4475
Age2	–2.3857	0.0244	–97.790	0.000	–2.4335	–2.3379
Corporatist	1.0962	0.0459	23.890	0.000	1.0062	1.1861
Liberal	0.7469	0.0586	12.750	0.000	0.6321	0.8618
Social-democratic	1.2294	0.0488	25.200	0.000	1.1338	1.3251
Post-communist	0.3358	0.0331	10.150	0.000	0.2710	0.4007
Age1 × Social-democratic	–1.2145	0.0582	–20.880	0.000	–1.3285	–1.1006
Age2 × Social-democratic	–1.2657	0.0516	–24.530	0.000	–1.3668	–1.1646
Age1 × Corporatist	–1.4456	0.0574	–25.200	0.000	–1.5581	–1.3332
Age2× Corporatist	–1.2032	0.0488	–24.660	0.000	–1.2988	–1.1076
Age1 × Liberal	–0.5930	0.0700	–8.470	0.000	–0.7303	–0.4558
Age2 × Liberal	–1.0029	0.0625	–16.040	0.000	–1.1255	–0.8803
Age1 × Post-communist	0.0618	0.0433	1.430	0.154	–0.0231	0.1468
Age2 × Post-communist	–0.0370	0.0357	–1.030	0.301	–0.1070	0.0331
Constant	1.5344	0.0221	69.520	0.000	1.4912	1.5777

Logistic regression. Number of observations = 534,997. Wald χ^2 (14) = 38,301.22. Prob.> χ^2 = 0.0000.

Log pseudo-likelihood = –296,462.89. Pseudo R^2 = 0.1720.

Our index can be seen as a refined version of the one proposed by Lynch (2001 and 2006) based on national accounts data. First, as mentioned above, it takes the household as the unit of analysis, consistent with the literature on poverty and inequality. Second, it is more precise in estimating who gets what in the first place. For example Lynch assumes that all pension and survivors benefits are paid to elderly people, while a part of the benefits are actually paid to younger individuals. Symmetrically, unemployment benefits, which Lynch completely attributes to the working age group, can also be paid to elderly unemployed. Of course, even our refined index must be taken with caution. First, some important items which potentially show an age-related profile are not included in the index (this is the case of expenditure for health and education). Second, the revenue side of the budget is not taken into consideration.[18] One of the main reasons for the difference between the two indicators is the fact that a sizable share of pension benefits goes to people less than 65 years old.[19]

Shifting the focus from the elderly to the young, we compute an index of the pro-children bias of policies. It is defined as the ratio between the transfers accruing to families with children and those accruing to families with working age people (Table 13). Differences across countries are larger than those concerning the orientation towards the elderly. While in some countries the expenditure for families with children is less than 20 per cent of what is given to families with working age individuals, this ratio is above one in Iceland, close to one in Norway, and above 80 per cent in Finland, Hungary, and Lithuania. Concerning the different regimes, the ratio is highest in Social-democratic countries (0.8). and lowest in the Southern countries (0.2).

To sum up, Social-democratic and Southern countries appear to be polar cases: public spending in the former is the most pro-children and the most pro-elderly, while the opposite is true for Southern countries. The other regimes lie somewhere in between these two extremes.

5.3 The degree of targeting

Differences in effectiveness might be due not only to the distribution of transfers but also to the design of the transfer system itself. For example, even in a country in which most of the transfers go to families with elderly people, there is the possibility that these resources are enjoyed mainly by families which are not poor to start with.

A widely used indicator of the anti-poverty *efficiency* of public expenditure (first introduced by Beckerman, 1979) is the so-called Vertical Expenditure Efficiency index (VEE).[20] It is defined as the percentage of transfers going to households which would have been poor without the transfers. This component of spending has a clear impact in the direction of reducing poverty, whereas money going to those who are not poor to start with does not change overall poverty indices.

In Table 17, we display the Vertical Expenditure Efficiency (VEE) for each country. Data show that in several countries VEEs are lower than 70 per cent (Cyprus, Latvia, Iceland, Lithuania, Estonia and Slovakia), whereas in others it exceeds 80 per cent (the United Kingdom, Austria, Luxembourg, Denmark, France, Netherlands and Germany). However, there is not much difference in expenditure efficiency across country groups, as in all of them there are very efficient and very inefficient countries. For example, while on average Social-democratic countries have the highest

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[18] The correlation between the elderly-to-non-elderly spending ratio computed by Lynch and the ratio between transfers going to families with elderly and transfers going to the rest of the families computed by us from EU-SILC data is positive (56 per cent). Lynch has data for only 15 EU countries. She considers average spending between 1985 and 2000.

[19] An analysis of the economic conditions of older retirees relative to younger retirees for the case of a Southern country (Italy) can be found in Franco *et al.* (2008).

[20] See also Mitchell (1991).

Table 20

Determinants of the Age-poverty Profile

	Anti-poverty Effectiveness Index for the Middle-aged – Anti-poverty Effectiveness Index for the Young		**Anti-poverty Effectiveness Index for the Middle-aged – Anti-poverty Effectiveness Index for the Old**	
Constant	–0.285	***	0.204	
	(–4.03)		(0.63)	
Difference in VEE	–0.001		–0.002	
	(–0.45)		(–0.57)	
Pro-old Bias			0.060	**
			(2.66)	
Pro-young bias	0.317	***		
	(6.47)			
R^2	0.65		0.25	
Observations	26		26	

average VEE, Iceland has the lowest score of all countries (64 per cent). While the Southern group has the lowest VEE, Portugal displays a very high score (82 per cent). Moreover, VEE is positively, not negatively related to the overall amount of transfers: it seems that smaller welfare states are not more, but less efficient than the bigger ones.

We also compute VEE indicators for the different kinds of families. There are no big differences across regimes in the targeting of the transfers going to families with old age components (in all cases efficiency is above 80 per cent). The same is true for transfers accruing to families with children, with the exception of Liberal countries in which efficiency is relatively higher (74 per cent).

Before concluding this section, in order to get a feeling of how far our measures of age-orientation go in explaining anti-poverty effectiveness, we run two simple cross-country OLS regressions (Table 20). In the first, we relate the difference in the effectiveness indices of the middle-aged and of the young to our pro-young bias index, controlling for differences in the degree of vertical efficiency. As expected, the coefficient of the pro-young bias index is positive and significant. In the second regression, the difference in the effectiveness indices of the middle-aged and of the old is regressed on our pro-old bias index, again controlling for differences in the degree of vertical efficiency between the two age groups. Again, the coefficient of the pro-old bias index is positive and significant.

6 Conclusions and policy implications

We have documented that sizeable differences exist across Europe with respect to the relative conditions of young and elderly citizens: in some countries (mainly belonging to the Southern European and Anglo-Saxon groups) their poverty rate is indeed much higher than that of the remaining part of the population.

We showed that these cross-country differences are largely due to differences in the effectiveness of national social policies in lifting children and elderly people out of poverty, whereas pre-transfer age-poverty profiles are rather similar across countries.

Finally, we have proposed new country-level measures of the age-orientation of social spending, and argued that they can be useful to explain why in some countries (mainly belonging to the Social-democratic and Corporatist groups) the transfer system is relatively more effective in lifting children and elderly people out of poverty.

Understanding the determinants of the age-orientation of welfare states is an obvious area for further research. Concerning this issue, economists emphasize the role of the lobbying power of the elderly, given their-single-mindedness (they do not care about the adverse labour market implications of large spending programs) and their reduced opportunity cost of lobbying (Mulligan and Sala-i-Martín, 1999).[21] Political scientists add that the elderly and the retirees are over-represented and over-influential inside powerful collective actors (e.g. trade unions), and that certain characteristics of the political system may further enhance their influence (for example, the "familist" ideology of some Christian democratic parties).

Of course, our results do not mechanically translate into a value judgement, or a ranking of European welfare states. As a matter of fact, we just investigate one particular dimension of social spending effectiveness – namely, the degree of protection against the risk of poverty – which is not the only, and not even the main goal of welfare systems. Moreover, as Esping-Andersen emphasizes, national systems differ in their ultimate targets, shaped as they are by country-specific historical forces and political struggles. So it would be wrong to look for a one-size-fits-all template, and for a common reform path.

On the other hand, our findings are potentially relevant from a policy point of view, in particular for Southern countries, where the age-poverty profile is pronouncedly V shaped. The evidence provided in our paper suggests that they have ample room for a reorientation of expenditures towards the more vulnerable age groups. Another implication of our results is that generous and expensive pension systems, such as those which are in place in some Southern countries, do not automatically translate into low poverty levels for the elderly. Indeed, due to the rules of the system, a sizable fraction of pension expenditures might goto the richest part of the elderly population, and/or to working-age individuals.

As we remarked at the beginning, EU welfare states do face common challenges, due to common socio-economic changes (Esping-Andersen, 1999) and to adverse budgetary developments, mainly due to the looming population ageing. We believe that there is much to be learnt from one's neighbors. This also represents a test for European institutions and in particular for the OMC as a platform for mutual learning. If it succeeds, it might be also fruitfully applied to other policy areas, taking into account both EU-wide challenges and national peculiarities.

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[21] See also the survey papers by Mulligan and and Sala-i-Martín (2004a and 2004b) and Galasso and Profeta (2002). While most of the papers consider the political sustainability of pensions and, more generally, transfers from the workers to the retirees, there is a more recent literature which brings transfers to the youngest part of the population into the picture (e.g., Boldrin and Montes, 2005; Slavov, 2006).

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