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## Cross-national differences in income poverty among Europe's 50+

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*Department of Economics*

# Cross-national differences in income poverty among Europe's 50+

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## CROSS-NATIONAL DIFFERENCES IN INCOME POVERTY AMONG EUROPE'S 50+

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# Cross-national differences in income poverty among Europe's 50+\*

Daniel Hallberg\*\*

June 25, 2006

**Abstract.** This paper studies income poverty among the 50+ population in 10 EU countries using newly collected data from the SHARE (Survey of Health, Ageing and Retirement in Europe) project. A measure of the household's disposable annual income is used. Relative income poverty range from 10 percent (in Sweden) to 22 percent (in Switzerland). Logistic regression estimates show that unemployment, being a homemaker, self-employed, living single, and having a child living close, are associated with an increased likelihood of poverty. Less risk of poverty can be found among those that have supervision over the workplace, have obtained more education, are home owners, and, in some countries, among those that are relatively old.

**Keywords:** Poverty, disposable income, household income, cross-country comparison, relative poverty

**JEL classification:** D31, I31, I32, J14

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## 1. Introduction

A vast body of empirical research shows that poverty – both in terms of levels and dynamics – is closely related to a country’s welfare regime and that (continental western) Europe can be divided in three broad clusters (e.g., Vogel 1999; Layte & Whelan 2003; Fouarge & Layte 2005): *first*, a Nordic cluster with large social spending, high labor force participation, and weak family ties, *second*, a southern cluster with relatively low welfare provisions, low employment, but strong family ties, and, *third*, a central European cluster, which is in-between. The Nordic cluster is characterized by low income inequality and poverty but high levels of inequality between generations, while the southern cluster exhibits high levels of income inequality, poverty and class inequality, but low levels of generational inequality.

The risk of being poor, however, not only varies across welfare regimes, it also varies across an individual’s life-course. While much of the recent literature pays particular attention to child poverty (e.g., Bradbury et al. 2001; Jenkins & Schluter 2003; Vleminckx & Smeeding 2001), the focus of this paper is on the older population (see also Lyberaki & Tinios 2005). By 2025, about one third of Europe’s population will be aged 60 or over, but our knowledge about the social and economic consequences of such rapid population ageing is yet incomplete. There is no doubt, however, that our social security systems’ capacity to maintain today’s standard of living for future generations of older people will be severely challenged.

This study uses data from the first public release version of ‘Survey of Health, Aging and Retirement in Europe’ (SHARE, collected in 2003) to examine one particular dimension of cross-national differences in poverty among older Europeans: poverty with regard to *disposable income*. While other dimensions of economic well-

being might be similarly important if one is concerned with social inequality in a more fundamental sense, disposable income is clearly most relevant with regard to the individual's ability to participate in everyday social life ('social inclusion'). The data is very advantageous since they allow us to account for a large number of micro-level determinants of income poverty, such as education, employment related factors, health, and demographic characteristics.

The remainder of the paper is disposed as follows: *Section 2* gives a short description of the data. *Section 3* provides a brief description of the income distribution and poverty rates in the SHARE population, focusing on disposable income. In *Section 4*, adjusted poverty rates are presented, which are based on logistic regressions controlling for population composition in the countries under study. *Section 5* gives some concluding remarks.

## **2. Data description**

The data are taken from the first wave of 'Survey of Health, Aging and Retirement in Europe' (SHARE) study. SHARE, which was collected in 2003, is the first cross national data set to combine extensive survey information on socio-economics status, health, and family relationships. Currently, 10 European countries are included: Sweden, Denmark, Germany, the Netherlands, France, Switzerland, Austria, Italy, Spain, and Greece. The target population is households where at least one member was aged 50 or older (born in 1954 or earlier). Also the partner to the age eligible individual was interviewed. This resulted in some 22,000 individuals altogether, or about 15,000 households, in the complete sample. A second data collection is scheduled in 2006. Future releases of the SHARE baseline study will also contain data from Belgium and Israel. (For detailed information, see Börsch-Supan et al. (2005))

and <http://www.share-project.org/>.) Relating to the previous literature on low income groups (see Sections 1), three sets of background controls are included in the present analysis; demographic factors, health, and labor market factors (see Section 4 for descriptive statistics).

### **3. Distribution of (disposable) income and poverty rates**

#### *3.1 Definition of disposable income and poverty rate*

The degree of income redistribution varies substantially between countries (cf. Immervoll et al. 2005) and it goes without saying that a household's disposable income is highly affected by a country's tax system, its social security regulations, as well as other public (and private) transfers. The present study is therefore based on a measure of the *household's disposable annual income* that includes the following components for the year 2003: gross income from employment, self-employment, pensions and other social security benefits, private regular transfers, asset income, and rent payments received *minus* taxes and social security contributions. In case of missing values, imputed information on income is used, which is provided with the data by the SHARE group (see Brugiavini et al., 2005b, for a detailed description of the applied imputation procedures). Lacking direct information from the survey, taxes were approximated using the following information: OECD average tax rates and social security contribution (SSC) rates for singles and couples, and country specific and age specific tax and social security exemption rates for various types of income. The tax rate and the SSC rates were linearly interpolated for all income levels, except for the highest threshold.

Assuming that the household is an income pooling unit that realizes economies of scale, the household's equivalent income is used, which is obtain by dividing the

household's total income by the square root of the number of household members. Income in all countries is converted into Euros and adjusted for differences in purchasing power.

The unit of observation is the *individual*. Thus, poverty is defined from the individual's position in the age- (50+) and country-specific income distribution ('head count ratio'), employing a commonly used *relative poverty measure*, based on 50 percent of the median household income. This results in different poverty lines (in terms of Euro amounts) for each country. This procedure is quite standard in the literature. For a discussion of methodological issues, see Buhmann et al. (1988) and Jäntti & Danziger (2000), for example.

### *3.2. Distribution of disposable income across SHARE countries*

A first inspection of the data reveals substantial cross-country differences with regard to the overall level of disposable income among the 50+ and regarding the extent of within-country variation (see Table 1). Henceforth the following abbreviations are used: SE: Sweden, DK: Denmark, DE: Germany, NL: Netherlands, FR: France, CH: Switzerland, AT: Austria, IT: Italy, ES: Spain, GR: Greece. Switzerland's 50+ population exhibits both the highest median disposable income (40,000 Euro) and the widest spread (measured by the interquartile range, p75-p25). A 'core' set of six countries in the north and center of Europe (Sweden, Denmark, Germany, the Netherlands, France, and Austria) is characterized by relatively similar levels of median income and income dispersion. By EU-15 standards, the Mediterranean countries (Italy, Spain and Greece) may be classified as 'low-income' countries. For example, the median income in Italy (8,800 Euro) – which is the highest in southern Europe – is almost equal to the 25<sup>th</sup> percentile income in Austria (8,400 Euro).



Table 1 Annual disposable household equivalent income in Euro, 50+ population, by country

	<i>p10</i>	<i>p25</i>	<i>p50</i>	<i>p75</i>	<i>p90</i>	<i>p75 - p25</i>	<i>(p75 - p25)/p50 (* )</i>	<i>Poverty line: 50 percent of median</i>
SE	10 244	14 566	21 100	30 631	45 605	16 065	0.76	10 550
DK	11 548	16 332	26 273	41 491	62 670	25 159	0.96	13 136
DE	4 805	9 898	16 751	25 980	47 849	16 082	0.96	8 376
NL	8 306	13 781	21 424	37 463	68 529	23 681	1.11	10 712
FR	5 724	11 025	17 056	29 602	58 058	18 576	1.09	8 528
CH	6 112	21 322	40 059	72 296	123 426	50 975	1.27	20 029
AT	2 728	8 416	14 226	23 225	48 165	14 809	1.04	7 113
IT	283	4 993	8 832	13 466	23 415	8 473	0.96	4 416
ES	281	2 827	5 050	8 736	16 245	5 909	1.17	2 525
GR	1 879	3 826	6 108	10 602	19 039	6 776	1.11	3 054

Note. Rounded to integers (except \*)

The country specific poverty line, given in the last column of the table, is in the range of the 10<sup>th</sup> and the 25<sup>th</sup> percentiles for all the selected countries, but while, e.g., the threshold for Switzerland (20,000 Euro) is very close to the 25<sup>th</sup> percentile (21,300 Euro), the threshold for Sweden (10,500 Euro) is very near the 10<sup>th</sup> percentile (10,200 Euro). This will result in more individuals regarded as poor in Switzerland compared to Sweden. One can also note that in Sweden and in Denmark the first decile is higher than any other of the selected countries. The group with lowest incomes in the Nordic countries thus has a higher absolute income level than comparable groups elsewhere, also those in Switzerland.

The selected countries differ in their degree of income redistribution. The Nordic nations with a system with large income redistribution have high taxes but also large income transfer systems (see, e.g., Immervoll et al. 2005), resulting in an income structure that is relatively more compressed. A way to measure the degree of income dispersion is calculate the normalized interquartile range (i.e., the difference between the 75<sup>th</sup> and the 25<sup>th</sup> percentiles, divided by the median). This index is related to the poverty rate – a country with a high income compression, a low index, usually has a low poverty rate and vice versa – since a more compressed income structure should result in thinner tails in the income distribution and more density around the distribution's center. However, relative poverty also depends on the upper tail of the distribution. The SHARE data suggest that for the studied population this index is smallest for Sweden (0.8), Denmark, Germany, and Italy (all 1.0), while it is largest for Switzerland (1.3) and Spain (1.2). The data hence support a general presumption about ranking with respect to the degree of income dispersion.

Naturally the income source is important for this study, e.g., since the income coverage in the social security programs vary in the selected countries, but also since

labor market status is not random in the population. The status is presumably endogenous to income current (and future) policies of redistribution, institutional context, and social norms. The relative importance of various income components – gross income from employment, self-employment, pensions and other social security benefits, private regular transfers, asset income, and rent payments received – for the old household's total income vary considerable across countries, particularly due to variation in labor force participation rates at older ages across countries. It is often found that much of these differences are explained by the different behavior of women across Europe (cf. Brugiavini et al. 2005a, for example, and Section 4 Table 4). In the Nordic countries, there are high labor force participation rates among elderly (females) while in the Mediterranean countries the relative proportions of (female) homemakers are high. In Table 2 and Table 3 we compare the annual disposable income distribution for the employed (or self-employed) and retired, respectively (note that disability pensioners are included among the retired). The data show important differences, both within and between countries, in the disposable income measure that seem to depend on labor market status. For all countries, we note a higher median and a larger interquartile range among those active in the labor market (employed and self-employed) compared to non-active (retired). The normalized interquartile range (cf. above) shows that the annual disposable income is more compressed among non-active compared to the active. We should hence in most countries expect more relative economic inequality among active compared to inactive old households.

Additional descriptive information is given in the last two columns of these two tables. These show, respectively, the 75<sup>th</sup> /50<sup>th</sup> percentiles quota and the 25<sup>th</sup> /50<sup>th</sup> percentiles quota, separately for employed (or self-employed) and retired. The previous index depended on the relation between the lower and upper parts of the

distribution. It was therefore less informative about how the income level in low (high) income groups is compared to that in the middle of the income distribution. The two current measures enables a comparison of the relative income standards within a given labor market status across countries. The 75<sup>th</sup> /50<sup>th</sup> percentile quota reveals that there seems to be relatively small differences both between countries and labor market status. We see that this index ranges from 1.4 to 1.9, which implies that the upper quartile income ranges from 140 to 190 percent of the median income in each studied labor market status group and country. However, for the low income groups who are employed, the 25<sup>th</sup> /50<sup>th</sup> percentiles quota shows a dramatic variation across Europe. This says, for instance, that employed low income groups in Austria, Switzerland and Spain are worse off compared to employed low income groups in the rest of the studied countries, relative the median of the specific country and group. For these countries the current index range from 0.2 to 0.4, which means that low income employed earn only about 20 to 40 percent of the median income in the group who are employed. In other countries this index is well over 0.5. In Sweden and Denmark the index is highest, 0.7. Among low income retired we cannot find the same difference across countries, as low income groups among the retired have about the same 25<sup>th</sup> /50<sup>th</sup> percentiles quota independently of which country we look at. For retired, this quota lies between 0.6 and 0.7. One should remember though, that the absolute income levels between countries as well as between groups with different labor market statuses in the same country may be quite disparate.

Table 2 Annual disposable household equivalent income in Euro, employed or self-employed, 50+ population, by country

	<i>p10</i>	<i>p25</i>	<i>p50</i>	<i>p75</i>	<i>p90</i>	<i>p75 - p25</i>	<i>(p75 - p25)/p50</i>	<i>p75/p50</i>	<i>p25/p50</i>
							(*)	(*)	(*)
SE	13 542	19 078	26 490	36 972	51 340	17 894	0.68	1.40	0.72
DK	17 127	27 758	39 770	54 306	69 573	26 548	0.67	1.37	0.70
DE	4 259	13 447	24 252	41 739	76 822	28 292	1.17	1.72	0.55
NL	8 531	16 260	26 150	41 835	65 599	25 576	0.98	1.60	0.62
FR	8 293	13 578	21 939	34 616	65 718	21 038	0.96	1.58	0.62
CH	4 346	18 193	54 313	90 602	134 664	72 409	1.33	1.67	0.33
AT	264	3 124	14 807	22 920	42 368	19 796	1.34	1.55	0.21
IT	668	6 401	11 442	21 630	39 208	15 230	1.33	1.89	0.56
ES	567	3 031	7 690	14 484	26 353	11 453	1.49	1.88	0.39
GR	2 635	5 778	9 951	16 756	22 882	10 978	1.10	1.68	0.58

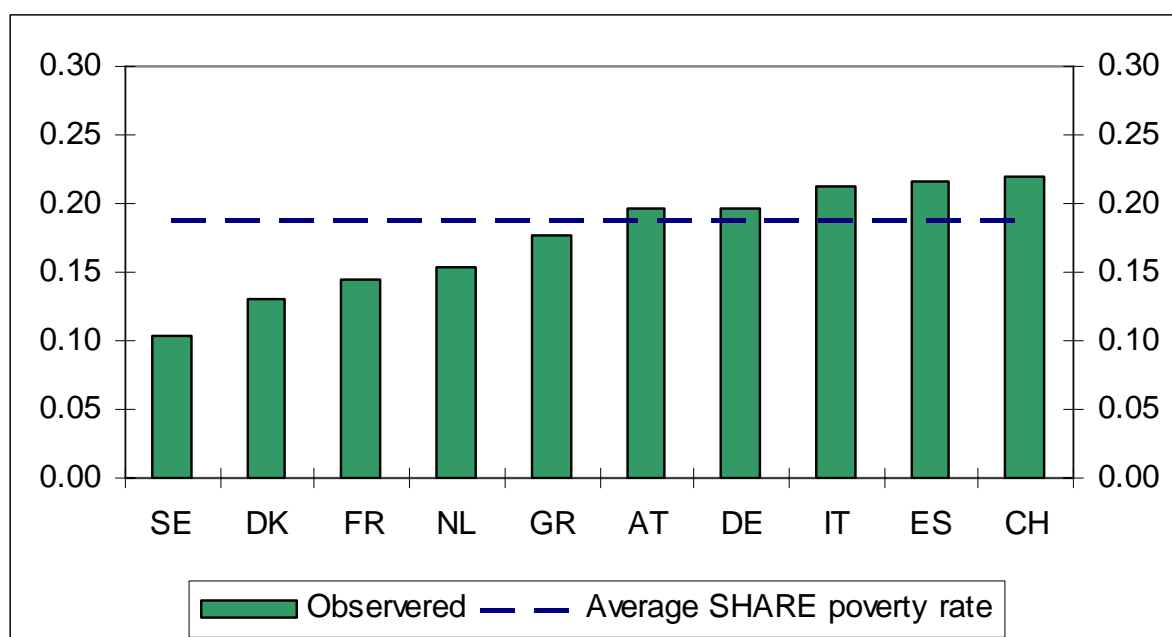
Note. Rounded to integers (except \*)

Table 3 Annual disposable household equivalent income in Euro, retired, 50+ population, by country

	<i>p10</i>	<i>p25</i>	<i>p50</i>	<i>p75</i>	<i>p90</i>	<i>p75 - p25</i>	<i>(p75</i> <i>- p25)/p50</i>	<i>p75/p50</i>	<i>p25/p50</i>
							(*)	(*)	(*)
SE	9 131	13 183	18 324	26 118	38 637	12 935	0.71	1.43	0.72
DK	11 812	14 855	20 048	30 963	43 696	16 108	0.80	1.54	0.74
DE	6 178	10 258	15 841	21 498	32 171	11 240	0.71	1.36	0.65
NL	10 171	13 896	20 447	36 766	82 173	22 870	1.12	1.80	0.68
FR	8 119	12 129	16 995	27 781	55 943	15 652	0.92	1.63	0.71
CH	16 787	22 342	34 620	59 119	110 895	36 777	1.06	1.71	0.65
AT	6 556	10 219	15 380	24 791	58 841	14 572	0.95	1.61	0.66
IT	3 198	5 951	9 468	13 100	20 583	7 149	0.76	1.38	0.63
ES	2 427	3 499	5 426	8 463	13 211	4 965	0.92	1.56	0.64
GR	2 194	3 679	5 627	8 990	16 327	5 311	0.94	1.60	0.65

Note. Rounded to integers (except \*)

Figure 1 Poverty rates with household equivalent disposable income

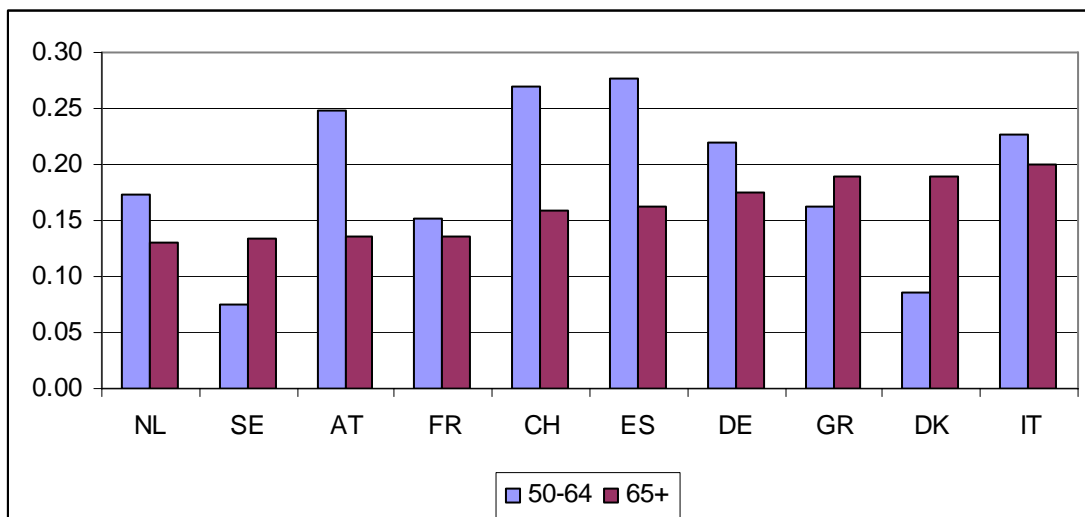


### 3.3 Poverty rates across SHARE countries

Income poverty ranking based on disposable income in the examined countries is shown in Figure 1. The data suggest that the (weighted) average poverty rate is 18.7 percent among elderly aged 50+. With some exceptions, that there is a north-to-south grouping of countries with respect to poverty. Switzerland, Spain, and Italy, have the highest poverty rates (between 21 and 22 percent), while Sweden, Denmark, France, and the Netherlands have the lowest (10 to 15 percent). In the middle group we find Germany, Austria, and Greece. The north-to-south ranking can be found in many studies. However, in relation to other studies, the poverty rates in SHARE data may seem somewhat high. Using the entire population, Förster & d’Ercole (2005) estimates income poverty rates around the year 2000 for the selected countries to be in the range of 5 percent (Sweden and Denmark) to 14 percent (Italy and Greece). Recall, however, that the poverty line used in the present study is based on the income distribution of a

restricted part of the population who are 50 years or older. A direct translation of our results is therefore less clear. For instance, using the Luxembourg Income Study from the late 1980s and early 1990s, Jäntti & Danziger (2000) presents estimates for elderly (above 65 year of age). Förster & d’Ercole (2005) presents more recent results for the population 65 year of age and older. One might consider using auxiliary information on median income of the entire population in each country to correct the poverty line but in the present study this has not been done. Diverging results with other studies might also arise since other cross national comparisons (e.g. the Luxembourg Income Study) often have to rely on national income studies, where income measures may be based on questions that may be phrased in inharmonious ways across nations. Before they can be used, data therefore have to be adapted. SHARE has a maintained set of questions regarding income measure across all examined countries and concern the same period of time.

Figure 2 Poverty rates for different age groups





The rather high poverty rate for Switzerland might be unexpected, since this is not what is found in other studies. Some of the discrepancies to other studies may lay in SHARE's age selection criteria. In Figure 2 poverty rates for different age groups is shown (with same country specific poverty rates as above). In the figure the nations are sorted (from left to right) in ascending poverty rate for the age group 65 or older. For Switzerland, but also for Austria and Spain, we see that the poverty among the older group is considerably lower relative the younger one. The poverty rate in Switzerland and Spain is about 6 percentage points lower among elderly aged 65 years or more compared to the aggregate level in Figure 1. In the Nordic countries the relation between poverty in these two age groups is the opposite. Denmark's and Sweden's elderly aged 65 years or more seem to experience a substantially higher poverty rate compared to those aged 50-64. This is in line with results from Eurostat (2005); for Denmark, the poverty rate is 5 percent for the age group 50-64 and 21 percent for the age group 65+. Eurostat (2005) defines the poverty rate as the share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers. In general, elderly people not working and living alone are at a greater risk of poverty than others, and according to Förster & d'Ercole (2005), this risk increased in the second half of the 1990s in many countries, including Denmark, Sweden, and Germany.

### **3. Poverty in a multivariate analysis**

We now turn to a multivariate analysis and present country specific logit estimates in Table 5. The following covariates are included to explain differences in poverty.

*Demographic factors* include gender, single status, whether there is a child (including

biological children, foster children, adopted children and stepchildren) living closer than 1 kilometer, in the same building or in the same household, whether the family owns their residence and age (by five-year age dummies). *Health* is approximated by indicators for less than good self-reported health, personal and instrumental activities of daily life limitations. As controls for *labor market factors* we include the level and length of education, current labor market status (dummies for being employed, retired, unemployed, sick or disable, or homemaker), whether the individual has withdrawn from the labor market within the last five years, whether self-employed at the current or last job and whether the respondent has/had supervisory duties at the current or last job.

The data show some quite interesting differences across Europe in the characteristics of the 50+ population. In Table 4 the fractions in employment or self-employment, retirement, unemployment, sickness and disability, and being a homemaker is given by country. Just as above, disability pensioners are coded as retired. Those reporting permanently sick or disabled are not necessarily disability pensioners. A closer look shows that it is almost only women that report themselves as homemakers. The data suggest that, as was noted Section 3.2, the fraction of female homemakers is highest in the Mediterranean countries and in the Netherlands, while it is lowest in Sweden and Denmark. There is an interesting North-to-South pattern, with high employment and self-employment rates in Sweden and Denmark, but also in Switzerland, and low rates in Italy, Austria, Greece Spain and France. The typical explanation for this pattern is that females in the Nordic countries on average work more and to much lesser extent are home wives compared to the rest of the SHARE countries.

Table 4 Descriptive statistics, means (except where indicated)

	SE	DK	DE	NL	FR	CH	AT	IT	ES	GR	Pooled
Employed or self-employed	0.400	0.389	0.295	0.345	0.294	0.414	0.222	0.210	0.275	0.253	0.281
Retired	0.546	0.523	0.539	0.342	0.542	0.454	0.623	0.550	0.349	0.508	0.505
Unemployed	0.021	0.043	0.048	0.018	0.035	0.017	0.027	0.014	0.033	0.016	0.032
Permanently sick or disable	0.025	0.031	0.026	0.084	0.023	0.031	0.015	0.007	0.040	0.015	0.026
Homemaker	0.008	0.014	0.092	0.211	0.106	0.084	0.113	0.219	0.303	0.208	0.156
Recent withdrawal	0.161	0.175	0.174	0.135	0.151	0.155	0.201	0.130	0.141	0.135	0.152
Self-employed	0.138	0.147	0.094	0.113	0.133	0.231	0.119	0.218	0.193	0.294	0.154
Supervisor	0.271	0.266	0.270	0.246	0.267	0.298	0.239	0.125	0.121	0.139	0.213
Female	0.530	0.535	0.551	0.531	0.548	0.540	0.555	0.553	0.544	0.535	0.547
Single	0.369	0.339	0.347	0.307	0.314	0.311	0.384	0.350	0.357	0.336	0.341
Less than good SRH	0.372	0.309	0.467	0.322	0.372	0.197	0.387	0.496	0.494	0.388	0.435
ADL	0.105	0.105	0.105	0.086	0.127	0.069	0.100	0.114	0.128	0.093	0.112
IADL	0.173	0.172	0.152	0.163	0.177	0.086	0.184	0.147	0.240	0.191	0.170
Low education	0.548	0.251	0.207	0.582	0.549	0.539	0.310	0.725	0.841	0.657	0.521
High education	0.202	0.325	0.239	0.192	0.177	0.245	0.203	0.074	0.082	0.130	0.165
Years of education	10.092	12.696	13.309	10.892	8.025	11.765	11.340	7.583	5.636	8.250	9.585
<i>st.dev. (Years of education)</i>	<i>3.449</i>	<i>3.820</i>	<i>3.040</i>	<i>3.634</i>	<i>5.610</i>	<i>4.818</i>	<i>2.949</i>	<i>4.648</i>	<i>4.330</i>	<i>4.878</i>	<i>5.085</i>
Have a child close	0.283	0.267	0.397	0.373	0.357	0.401	0.445	0.632	0.658	0.658	0.477
Owns ones home	0.691	0.714	0.521	0.558	0.749	0.526	0.593	0.746	0.849	0.847	0.679
age55-59	0.191	0.200	0.141	0.208	0.182	0.180	0.207	0.192	0.160	0.146	0.170
age60-64	0.148	0.171	0.173	0.153	0.128	0.155	0.163	0.162	0.135	0.172	0.154
age65-69	0.134	0.119	0.170	0.124	0.129	0.136	0.136	0.142	0.139	0.160	0.147
age70-79	0.201	0.189	0.214	0.197	0.226	0.207	0.229	0.242	0.248	0.236	0.226
age80+	0.152	0.116	0.112	0.106	0.128	0.104	0.099	0.119	0.137	0.101	0.120
Observations	2985	1592	2921	2715	1650	935	1903	2473	2308	1955	21437

Note: Weighted data. SRH is “Self-reported health”. ADL is one or more activities of daily life limitations. IADL is one or more Instrumental activities of daily life limitations. ‘Recent withdrawal’ is 1 if retired from work in the last five years, 0 else. *Low education*: primary education, lower secondary education. *Mid education*: upper secondary education, post-secondary, and first stage of tertiary education. *High education*: second stage of tertiary education.

Table 5 Logit estimates of poverty, by country, disposable income

Variable	SE	DK	DE	NL	FR	CH	AT	IT	ES	GR	Pooled
Retired	0.646*	-0.061	0.233	0.132	-0.457	-0.029	-1.104***	0.038	-0.475*	0.311	-0.008
Unemployed	0.66	0.575	1.133***	0.828*	1.210**	0.021	0.108	2.069***	0.521	2.086***	1.180***
Permanently sick or disable	-0.458	0.973*	0.603	0.358	0.847	0.183	0.018	0.255	-0.464	0.693	0.343*
Homemaker	0.48	1.321*	0.461*	0.455*	0.668*	0.291	-0.342	1.036**	0.644***	0.577*	0.697***
Recent withdrawal	0.348	0.201	-0.189	-0.079	0.34	-0.283	-0.052	-0.313	0.193	0.178	-0.11
Self-employed	0.572**	0.129	0.347	0.508**	0.543*	0.440*	-0.047	-0.032	-0.078	0.437**	0.193*
Supervisor	-0.709***	-0.663**	-0.309*	-0.07	-0.504*	0.04	-0.576**	-1.065*	-0.337	-0.36	-0.476***
Female	0.532***	-0.122	0.158	0.139	-0.214	0.079	0.138	-0.075	0.22	0.166	0.103
Single	0.414**	0.666***	0.258*	-0.056	0.723***	0.09	0.486***	-0.132	-0.425**	0.24	0.153*
Less than good SRH	0.01	0.298	0.182	0.034	0.201	0.09	-0.061	0.04	-0.069	0.141	0.138*
ADL	-0.101	-0.188	0.134	-0.128	-0.1	-0.159	0.632**	-0.195	-0.127	-0.288	-0.025
IADL	0.018	-0.16	0.14	0.128	-0.054	0.029	-0.264	0.07	-0.139	0.07	0.027
Low education	-0.041	0.5	0.486*	-0.068	0.283	-0.505	-0.005	-0.343	0.178	0.175	0.219*
High education	-0.339	0.001	-0.357	-0.296	0.387	-0.623*	0.182	0.44	0.279	-0.33	-0.186
Years of education	-0.083*	0.01	0.017	-0.094***	-0.049	-0.068*	-0.004	-0.044	-0.016	-0.02	0.007
Have a child close	0.243	-0.295	0.340**	0.186	0.575***	0.083	0.542***	-0.23	0.201	0.035	0.231***
Owens ones home	-0.23	-0.368	-0.307**	0.071	-0.395*	-0.251	-0.099	-0.084	-0.495**	0.017	-0.345***
age55-59	0.124	-0.075	0.15	0.26	0.246	-0.357	-0.103	-0.268	0.138	-0.364	0.028
age60-64	-0.2	-0.152	0.026	-0.305	0.294	-0.375	-0.657**	-0.06	-0.004	-0.496*	-0.002
age65-69	-0.259	0.439	-0.352	-0.278	0.305	-0.934*	-0.523	-0.319	-0.338	-0.784**	-0.217
age70-79	-0.353	0.813*	-0.476*	-0.588*	-0.02	-0.894*	-0.429	-0.381	-0.501*	-0.525*	-0.355**
age80+	0.265	0.762	-0.945**	-0.608	0.413	-1.063*	-1.054**	-0.315	-0.352	0.13	-0.329*
Constant	-2.090***	-2.458**	-1.940***	-0.881*	-1.998***	0.352	-0.774	-0.444	-0.914*	-1.872***	-1.683***
Observations	2985	1592	2921	2715	1650	935	1903	2473	2308	1955	21437
Log Likelihood	-899.839	-551.357	-1368.46	-1113.33	-603.582	-468.046	-844.155	-1197.45	-1111.16	-855.281	-9810.47

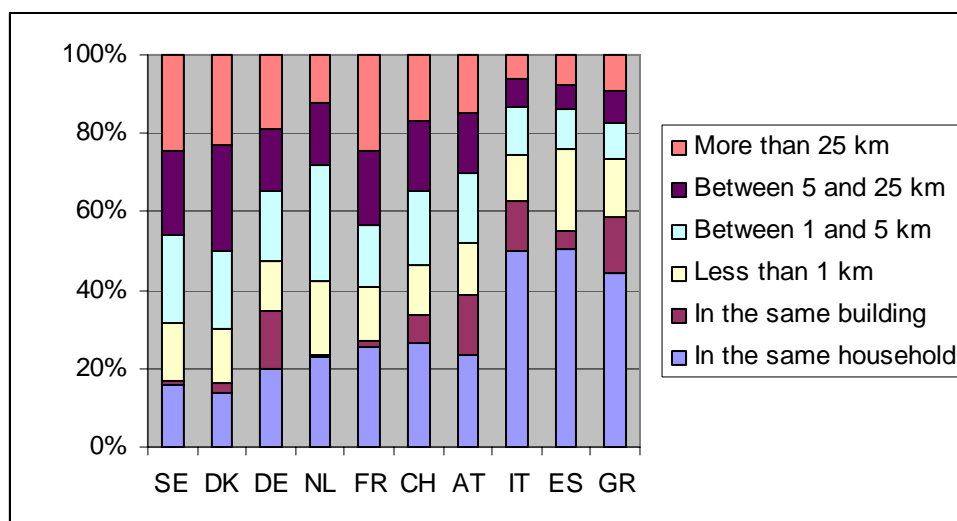
Note: \* p<0.05; \*\* p<0.01; \*\*\* p<0.001. Weighted data. Poverty line at 50% of median per capita ppp-adjusted household disposable income. Median calculated from distribution of individuals in countries separately. See Table 4 for more notes.

The multivariate analysis suggests that there is no consensus in the selected countries that retired has a higher likelihood of poverty compared to the reference group, which is employed. In Sweden, retirement is linked to income poverty, while in Austria and Spain the likelihood for poverty is lower for retired compared to employed. Those currently unemployed, homemakers, and those that currently are self-employed or were self-employed during active working career are however – in most of Europe – associated with an increased likelihood of poverty.

Significant differences across Europe also appear in the endowment of formal education. From the original questions in SHARE the level and length of an education were coded. The years of education naturally depends on the formal educational systems in a particular country, but are nevertheless often used to capture one dimension of the educational level in a country. Table 5 shows that south Europe seem to have fewer years on average in education; while the Spaniards on average have 6 years of education, Germans top the distribution with more than the double. As one could expect the logit estimates suggest that those that have obtained more education are associated with a lower poverty risk compared to others.

Other associated effects are that those that have or had supervision over the workplace during their current or last job or own their home are associated with a lower poverty risk compared to others. This might proxy for high job stability and good economic stability.

Figure 3 Distance to nearest child



An institutional difference in the selected countries that are important for the elderly is the availability (or lack of) of public assistance and support to older people. It is notable that such help has been increasingly supplemented by the efforts of relatives. If relatives are to provide such aid (but also to receive help from the parent), one prerequisite is that they live near their parents. Figure 3 shows the closeness in kilometers (km) to nearest child by country coded from the survey information in SHARE. In southern Europe it is common to live in the same household or the same building as the (grown up) children. This is not the case in the northern part of Europe, where the distance is on average much longer. It is likely that a nearby (adult) child has more possibilities to help the parent more than a child that lives further away. The logit estimates show that in mid-Europe countries (Germany, France, and Austria), poor are more likely to have a (grown-up) child living close compared to non-poor. As it is much more common in the south to have a grown-up child living close compared to elsewhere in Europe, one interpretation could be that grown up children in the south assist their parents more independently of the difficulty of the economic situation of

the parents. It might also be that aid to the parents is less associated with distance in some countries because of a relatively more dense population structure.

For the selected age group health is naturally a determining factor for many of the choices and outcomes of the individual. SHARE contains a quite detailed battery of questions related to health and health expenditure. In the present paper I have chosen to pick out only some of these measures. One measure often used in the health literature is self-perceived health. By looking at Table 4 we see again that there is a north to south pattern in the fraction that report “less than good health”. The fractions of less than good health seem to be higher in South Europe compared to the mid and north parts. Switzerland stands out as a country with very low fractions of less than good self-perceived health. As for this health factor and those mentioned above, however, there is little in the regression results that suggest that poor are worse off in terms of bad health than others. Only the pooled, restricted, estimates using all the SHARE countries suggest that this might be the case.

In the sample the age structure are very similar across countries. Above it was noted that poverty was associated with age group but that the direction of this association varied over countries (see Figure 2). The multivariate analysis shows that less risk of poverty can be found among those that are relatively old in some of the central European and Mediterranean countries, while the reverse is true for Denmark. There seems to be no significant relationship in Sweden, France, and Italy. Living single is linked to an increased likelihood of poverty in northern and most of central Europe. In the south, in particular in Spain, there is actually evidence of the opposite.

Since we are studying a measure of the household’s equivalent income the gender should not matter, unless gender proxy something else that is important for the likelihood of poverty. As expected, females does not suffer more economically once

other demographic factors, and health and labor market factors, are controlled for.

Swedish women – for whom we find a higher poverty risk compared to Swedish men – seem to be an exception, however.

#### **4. Conclusions**

This paper presents a first analysis of newly collected survey data from the SHARE study. It examines low income groups measured by the disposable household income among those over their fifties in Europe. The current sample of nations reveals a quite large variation in many dimensions, e.g., labor force participation, education, availability of closely living relatives, etc. The findings with respect to poverty broadly support the disparate welfare regime setting in the studied countries with respect to their social, institutional, and intergenerational context.

The findings suggest that the poverty rate range from 10 percent (in Sweden) to 22 percent (in Switzerland and Spain). The poverty rate is in general lower among the northern countries and higher in the southern countries. Estimates of country specific logit models show that the main factors for an increased poverty risk are unemployment, being a homemaker, self-employed, living single, and having a child living close. Less poverty risk can be found among those that had or have supervision over the workplace, have obtained more education, or are home owners. It is likely that a nearby living adult child has more possibilities to help out which is one interpretation of the above result. There is significantly higher poverty associated with 65+ age groups in Denmark and Sweden, while in Austria, Switzerland, and Spain this age group has a lower poverty risk. There is on the other hand no consensus in data that retired are more likely to be poor once other factors are controlled for, rather, for Austria, the reverse is true.



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