

Poverty of the Aging Population: a Cross-country Analysis

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Introduction

- The aged as vulnerable group to poverty spells (OECD 2008).
- Poverty among the elderly tends to be more persistent than for other groups in society
- OECD countries devote a substantial share of national resources to protecting well-being through social insurance programs.
- International comparative studies:
 - We analyse the poverty status and its possible determinants among mature and elderly adults in 13 OECD countries which comparable longitudinal survey data.

Background

- Extensive literature on poverty and well-being of the aged.
 - Pension and other public institutions (i.e., Engelhardt and Gruber 2004, Engelhardt 2005, Ogg 2005, Hoff 2008, Zaidi et al. 2006)
 - Poverty for elderly women and singles (i.e. Rupp et al. 2003, Oxley et al. 2000, Hurd and Wise 1989 and 1991, Choi 2006, Thomson and Carasso 2002)
 - Living arrangements (Kim 1999, Levande et al.2000, Lee and Phillips, 2011)

Poverty measures

- Absolute poverty measures (AbsPc, AbsPhh):
 - Based on the official poverty thresholds in the U.S.
 - Per capita income: couple level or household level
- Relative poverty measures (RelPc, RelPhh):
 - Poverty line : 60% of the median income in the country at time t.
 - Per capita income: couple level or household level
- Subjective poverty measure (SubjP):
 - “thinking of your household’s total monthly income, would you say that your household is able to make ends meet?” Response: with great difficulty, with some difficulty, fairly easily, or easily.

Data

- Comparable population surveys of aged 50 and over during year 2002-2008.
 - Conducted Biannually
 - Nationally representative samples of older individuals.
- Health and Retirement Study (HRS) for the U.S.
- English Longitudinal Study of Ageing (ELSA)
- Study of Health, Ageing and Retirement in Europe (SHARE)
- Korean Longitudinal Study of Aging (KLoSA)

Harmonization Efforts

- As part as the RAND Survey Meta Data Repository
 - <https://mmicdata.rand.org/megametadata/>

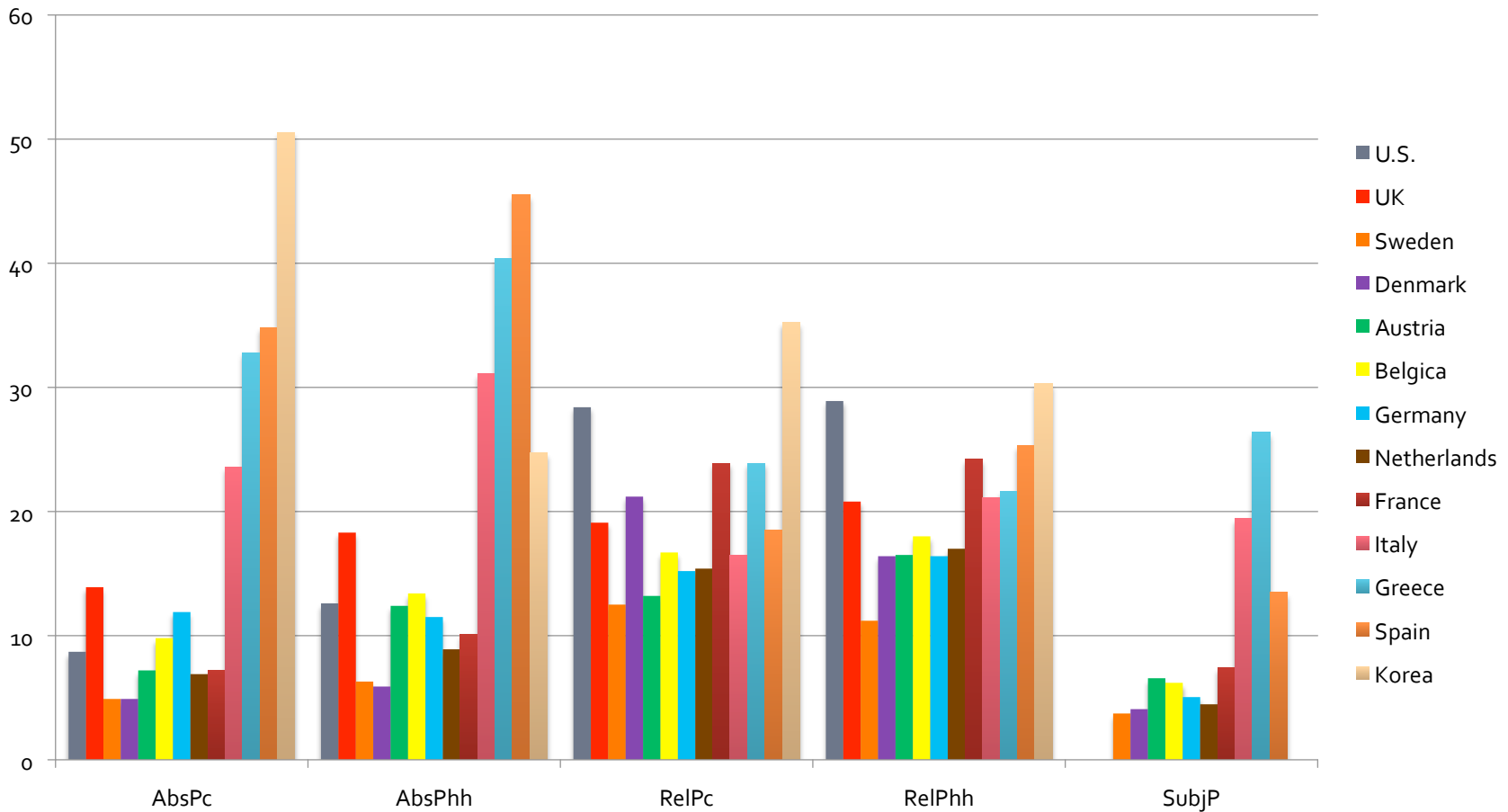
Financial Well-being in the HRS-ELSA-SHARE and KLoSA

| | HRS | ELSA | SHARE | KLoSA |
|---------------------------|--|---|--|--|
| | 1992-2010 | 2002-2008 | 2004-2006 | 2006-2008 |
| Waves | 10 | 4 | 2 | 2 |
| Unit of response | Couple | Individual/couple | Individual | Individual |
| Before/after tax | Before tax | Before and after tax for earnings; after tax for asset income | Before tax in wave 1; after tax in wave 2 | After tax |
| Aggregate measures | Total income at the couple level; total household income | Total income at the couple level; total household income | Total income at the couple level; total household income | Total income at the couple level; total household income |

Income measures

- All aggregate income measures include information on individual and spouse's earnings, income from:
 - earnings
 - employer pensions and annuities, individual income from social security retirement
 - family capital income,
 - and family government transfer income.
 - Private transfers (Korea)
- We construct income measures at the couple and household levels.
- We transformed all per-capita income measures into constant 2004 USD, using *Purchasing Power Parity* (PPP)

Absolute, relative and subjective poverty rates across countries

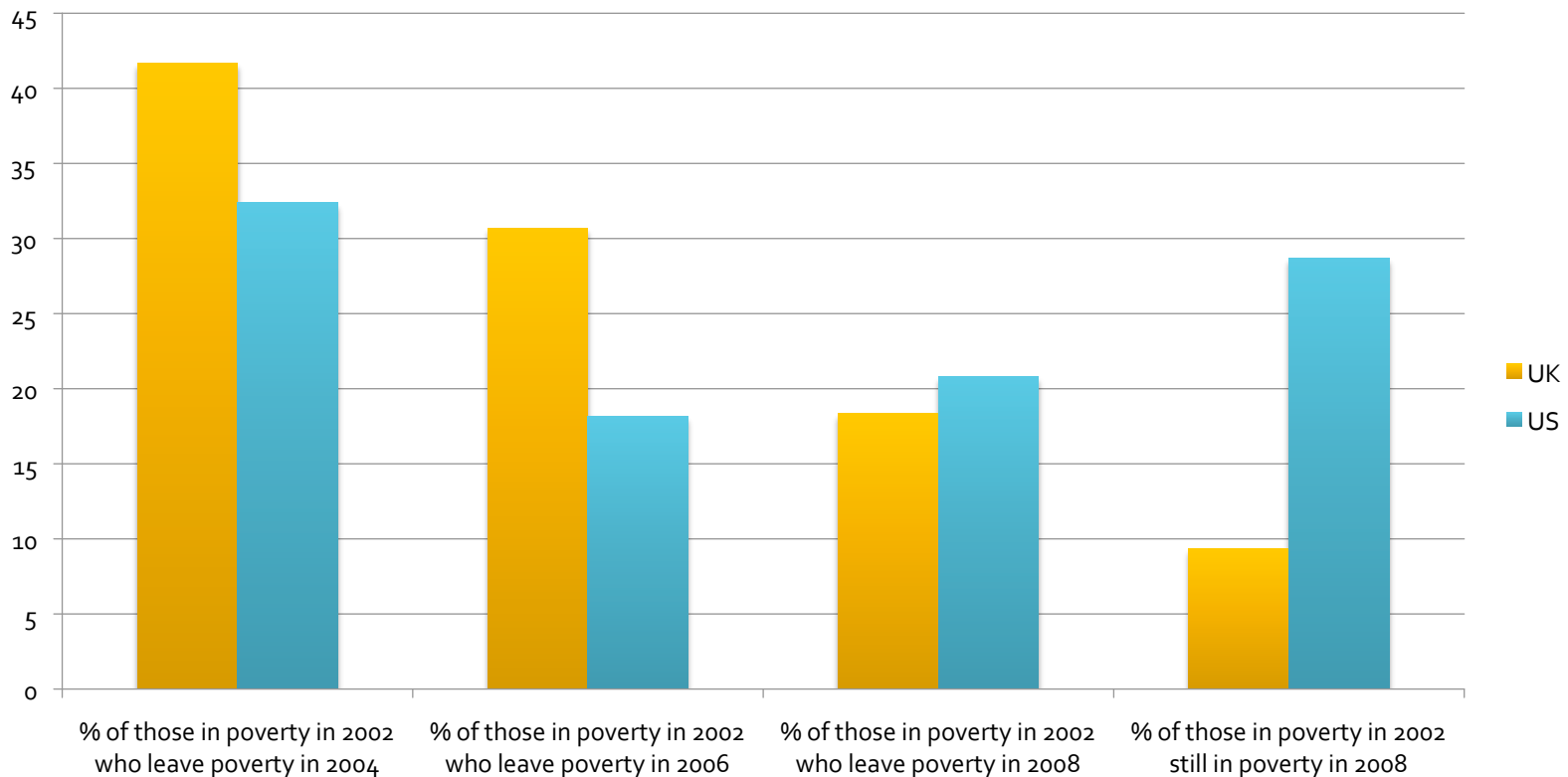


Marginal Effects of multivariate analysis of factors associated with poverty

| | ELSA | HRS | SHARE | | KIoSA |
|-----------------------------------|-------------|------------|--------------|-----------|--------------|
| | AbsPhh | AbsPhh | AbsPhh | SubjP | AbsPhh |
| Age | 0.004 | 0.000 | 0.002 | -0.014* | 0.002 |
| Female | 0.326*** | 0.432*** | 0.290** | 0.355** | 0.07 |
| Separated | 0.749*** | 1.454*** | 0.846*** | -0.011 | 0.683*** |
| Divorced | 0.659*** | 0.996*** | 0.951*** | 0.077 | 0.657*** |
| Widowed | 0.684*** | 0.868*** | 1.076*** | -0.363* | 0.567*** |
| Never married | 0.578*** | 1.334*** | 1.016*** | -0.222 | ... |
| Married*female | -0.164 | -0.524*** | -0.375** | -0.490*** | -0.309*** |
| College | -0.370*** | -0.795*** | -0.591*** | -0.540*** | -0.112* |
| High school | -0.202*** | -0.564*** | -0.293*** | -0.415*** | -0.721*** |
| Self employed | -0.457*** | -0.540*** | 0.213 | -0.381* | -0.606*** |
| Wage salaried | -1.030*** | -0.931*** | -0.615*** | -0.713*** | 0.456*** |
| Living alone | 0.222** | -0.084 | -0.412*** | 0.231* | -0.306*** |
| Living with children | ... | ... | ... | ... | -0.193* |
| Bad health | 0.116 | 0.548*** | 0.138* | 0.310*** | 0.269*** |
| ADL | -0.098*** | -0.05 | -0.048 | 0.097* | -0.01 |
| IADL | -0.018 | 0.305 | 0.099 | 0.144 | -0.017 |
| Health coverage*Bad health | ... | -0.271* | ... | ... | ... |
| Health coverage*ADL | ... | 0.128 | ... | ... | ... |
| Health coverage*IADL | ... | -0.331* | ... | ... | ... |
| Above retirement age | -0.815*** | -0.199* | -0.317** | 0.028 | 0.194** |
| Above early retirement age | Excluded | -0.272** | -0.175 | -0.278* | -0.046 |
| Constant | -1.243*** | -1.413*** | -1.585*** | -0.214 | -1.124*** |
| Country dummies | ... | ... | Yes | Yes | ... |
| N.obs | 6823 | 13323 | 5183 | 3693 | 8498 |
| R^2 | 0.171 | 0.294 | 0.222 | 0.17 | 0.214 |

Note: legend: * p<0.05; ** p<0.01; *** p<0.001

Poverty Persistence in England and the U.S.



Note: (i) Weighted percentages; (ii) Source: Authors tabulations from ELSA(2002-2008) and HRS (2002-2008)

Marginal Effects for duration models transitioning out of poverty 2004-2008

| | UK | U.S. |
|----------------------------|-------------------------|-------------------------|
| Time in poverty | -0.10* (0.02) | -0.11* (0.01) |
| Age | -0.003* (0.001) | -0.001 (0.001) |
| Female | -0.08* (0.02) | -0.02 (0.02) |
| Married | 0.30* (0.02) | 0.32* (0.03) |
| College | 0.10* (0.03) | 0.16* (0.06) |
| High School | 0.03 (0.03) | 0.16* (0.03) |
| Work | 0.07 (0.04) | 0.36* (0.04) |
| Above Full Retirement age | 0.34* (0.04) | -0.06 (0.04) |
| Above Early Retirement age | | 0.07* (0.03) |
| N.obs | 2683 | 2666 |

Note: Cluster robust standard errors by individuals in parenthesis;

* means significance at 5% level.

Marginal Effects for probit models on transitions into poverty 2004-2008

| | ELSA | HRS |
|--|-----------------|------------------|
| Year 2006 | 0.01* (0.004) | 0.001 (0.002) |
| Year 2008 | 0.006 (0.005) | 0.007* (0.002) |
| Age | 0.0006 (0.0004) | -0.0001 (0.0002) |
| Female | 0.03* (0.005) | 0.008* (0.002) |
| Married | -0.07* (0.006) | -0.06* (0.003) |
| College | -0.03* (0.005) | -0.04* (0.002) |
| High School | -0.02* (0.005) | -0.04* (0.003) |
| Work | -0.07* (0.005) | -0.03* (0.002) |
| Above full retirement Age | -0.10* (0.01) | -0.03* (0.005) |
| Above early retirement Age | ... | -0.01* (0.005) |
| Mayor health condition-Baseline | -0.01 (0.005) | 0.01 (0.01) |
| Minor health condition-Baseline | -0.01* (0.005) | 0.01* (0.005) |
| Health insurance*Mayor health condition-Baseline | ... | -0.01 (0.008) |
| Health insurance*Minor health condition-Baseline | ... | -0.01* (0.005) |
| Mayor health condition | 0.007 (0.007) | 0.02 (0.02) |
| Minor health condition | 0.009 (0.006) | 0.01 (0.01) |
| Health insurance*Mayor health condition | ... | -0.01 (0.01) |
| Health insurance*Minor health condition | ... | -0.01 (0.01) |
| N obs | 16718 | 35183 |

Note: Cluster robust standard errors by individuals in parenthesis;

* means significance at 5% level.

Conclusions

- We studied the poverty status and its possible determinants among mature and elderly adults in 13 OECD countries with harmonized data.
 - Korea, Spain, Italy and Greece have the highest poverty rates.
 - The U.S. have differences in poverty rates when using absolute and relative poverty rates.
 - Self-employed seems to have a protective effect in countries as U.K, the U.S and Korea.
 - Eligibility for public pension has a protective effect against poverty and the effect is larger in UK and Europe than in US but not in Korea.
- Poverty dynamics:
 - Poverty durations seem to be higher in the US than in the UK but transitions into poverty are higher in the UK than in the US.