

# Well-being of the older population in Europe and the U.S.

Aïda Solé-Auró<sup>1,2</sup>

Jennifer Ailshire<sup>1</sup>

Eileen M. Crimmins<sup>1</sup>

<sup>1</sup> Davis School of Gerontology, University of Southern California

<sup>2</sup> Institut National d'Études Démographiques, Paris; Universitat Pompeu Fabra

---

SHARE SEMINAR

SEPTEMBER 8<sup>TH</sup>, 2014 PARIS, FRANCE

# Introduction



- Increasing longevity at the oldest ages has characterized all low mortality countries
- Most people live long beyond their working years and the years in which they raise families, and spend decades in retirement and some years with disability
- Maintaining QoL is important at older ages where needs for care are increasing
- QoL is likely to be influenced by each individual's experiences but also by the context in which people live

# Introduction

- Well-being is the ultimate outcome of policy and personal achievement
- Determined by many factors:
  - Health, financial circumstances, family life, and social integration
- The role of these factors may vary by age as needs change:
  - More related to health at older ages
- The role of these factors may also differ where there are different supports from policies and programs which differ in each context

# Introduction

- Why context matters for older adult well-being?
  - Country
  - Welfare regime

} Examine national differences within WR in programs relevant to the oldest old before adopting the typology that has been used in the analysis of younger populations
- Hypothesis  Country generosity and support will play a significant role over and above individual characteristics in determining QoL
- Question  How does well-being relate to the characteristics of national programs and policies that influence the lives of older persons living in 12 countries?

# Data

The Survey of Health, Ageing and Retirement in Europe (SHARE)  
Health and Retirement Study (HRS)

Nationally  
representative samples

**SHARE 2004:** 11 Continental European countries - Austria; Belgium; Denmark; France; Germany; Greece; Italy; Netherlands; Spain; Sweden; and Switzerland

**HRS 2006:** United States

	SHARE	HRS
Response rates	74% (70% Sweden – 93% Greece)	74%
N (70+)	5,273	3,161

# Dimensions of Well-Being

## 1) Life Satisfaction – Evaluative indicator

- How satisfied are you with your life in general?

## 2) Depressive Symptoms – Experiential indicator

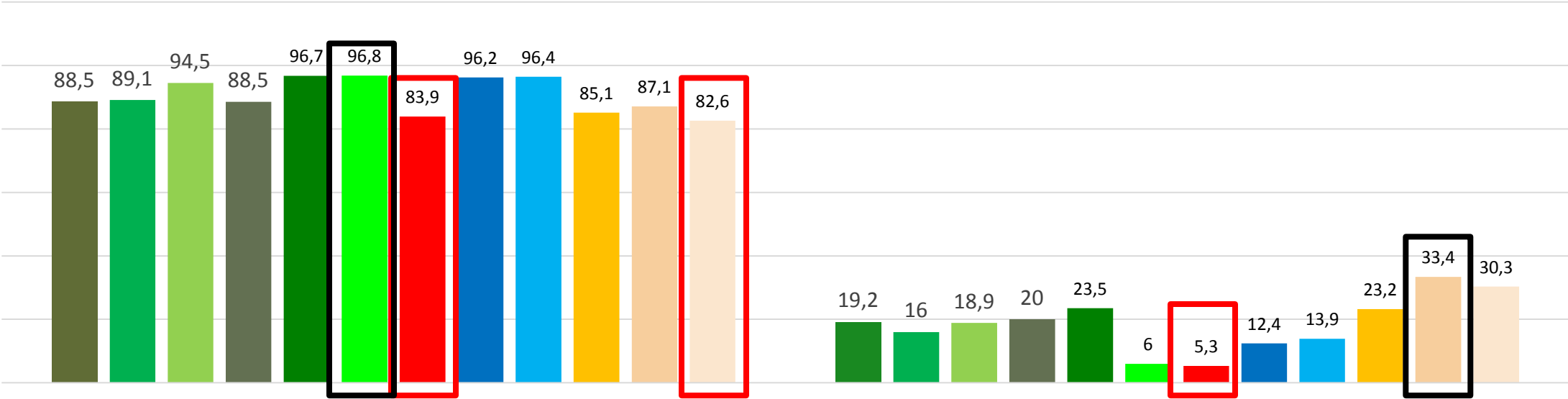
- How often experienced the following feelings over the last week: (1) I felt depressed, (2) I felt that everything I did was an effort, (3) My sleep was restless, (4) I felt lonely, (5) I felt sad, and (6) I couldn't get going

**For both samples we considered**

The satisfied or agreement responses

The most severe response – all of the time – as a positive endorsement of depressive symptom

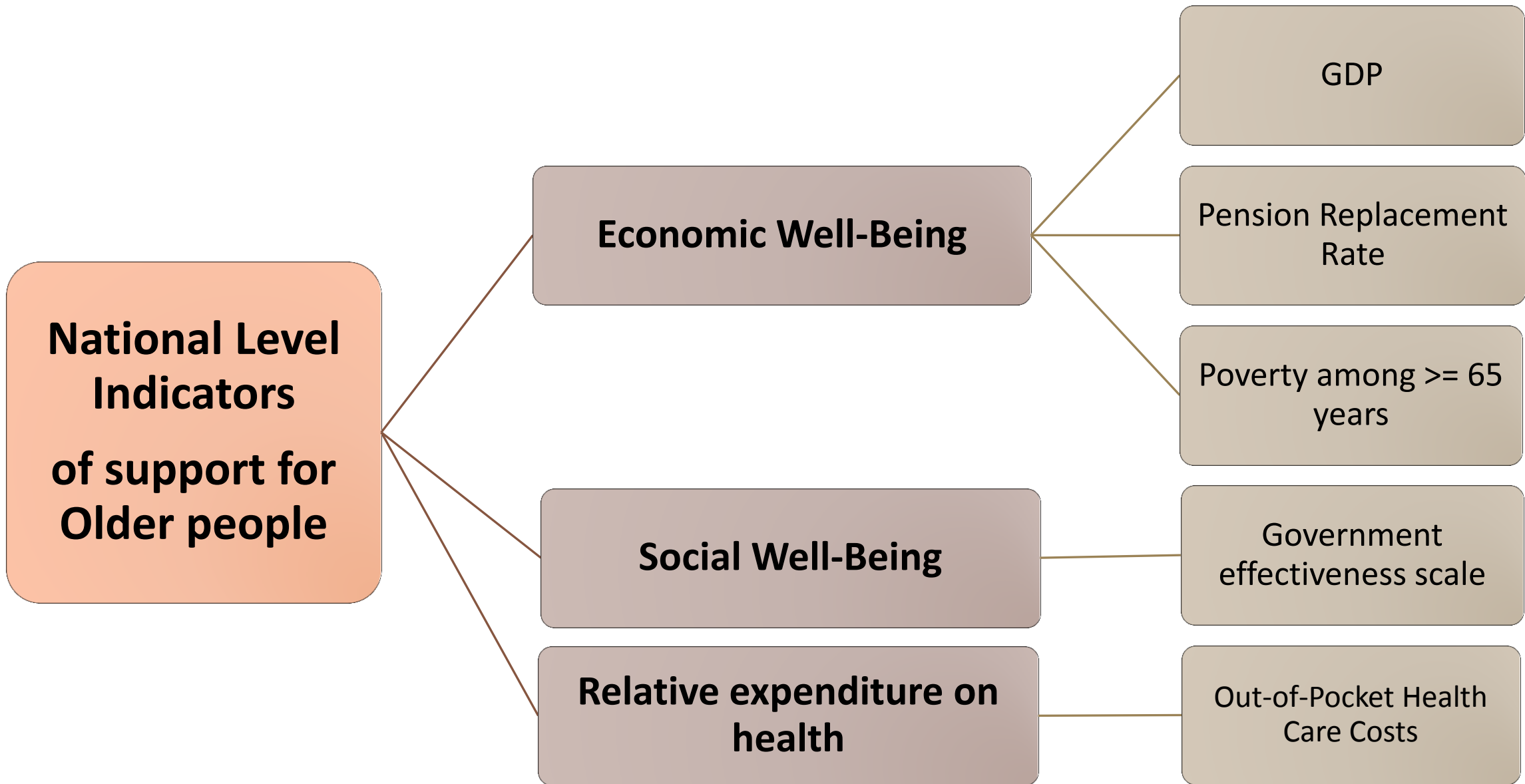
# Well-Being by Country



Life Satisfaction

Depression

- France
- Germany
- Belgium
- Austria
- Netherlands
- Switzerland
- U.S.
- Denmark
- Sweden
- Greece
- Spain
- Italy





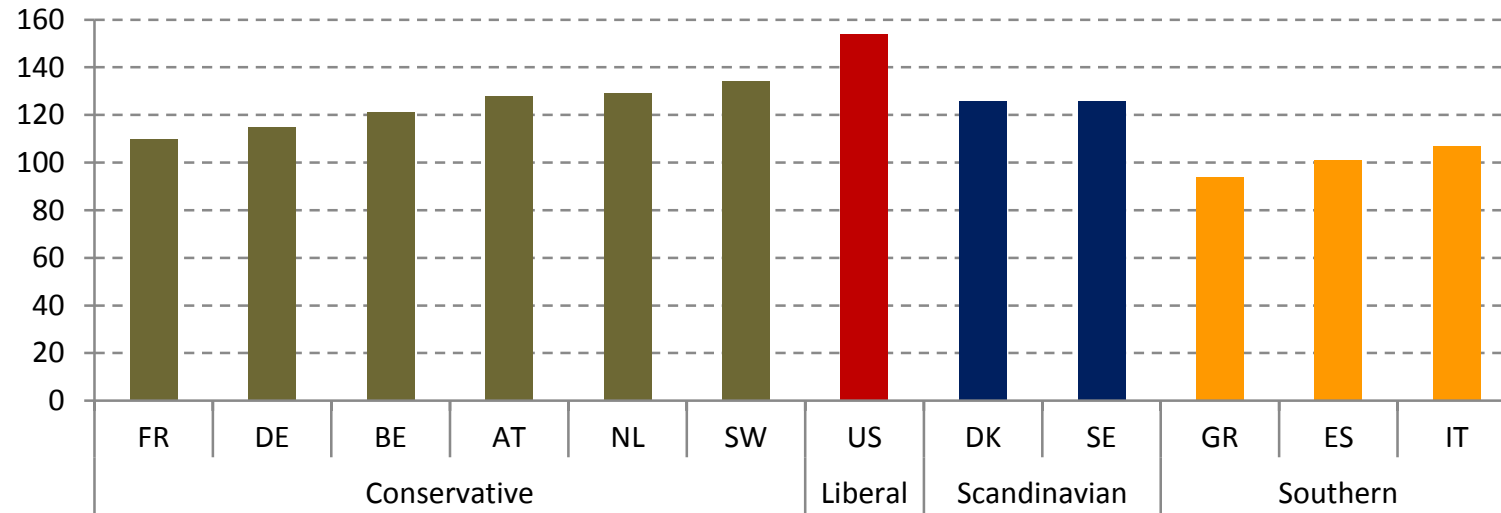
## Table : Definition of Indicators of national support for programs and policies affecting the older population

<b>Relative Gross domestic product per capita (GDP)<sup>1</sup></b>	GDP per head in purchasing power standards (expressed in relation to the average for the 28 European countries in 2004 and in 2006 for the U.S.)
<b>Government effectiveness scale<sup>2</sup></b>	Perception of the quality of public services: in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5
<b>Poverty among <math>\geq 65</math> years<sup>3</sup></b>	Percent of those 65 years and older with an equivalent disposable income below the poverty threshold, which is set at 60% of the national median equalized disposable income after social transfers
<b>Pension Replacement rate (PRR)<sup>3</sup></b>	Net replacement rates shows the level of pensions in retirement relative to earnings when working, i.e. individual pension entitlement net of taxes and contributions as a percentage of individual pre-retirement earnings net of taxes and contributions
<b>Out-of-pocket expenditure on health<sup>3</sup></b>	Out of pocket payments, as a % of total expenditure on health care

Source: (1) Data from Eurostat; (2) Data from World Bank Database; (3) OECD StatExtract Data

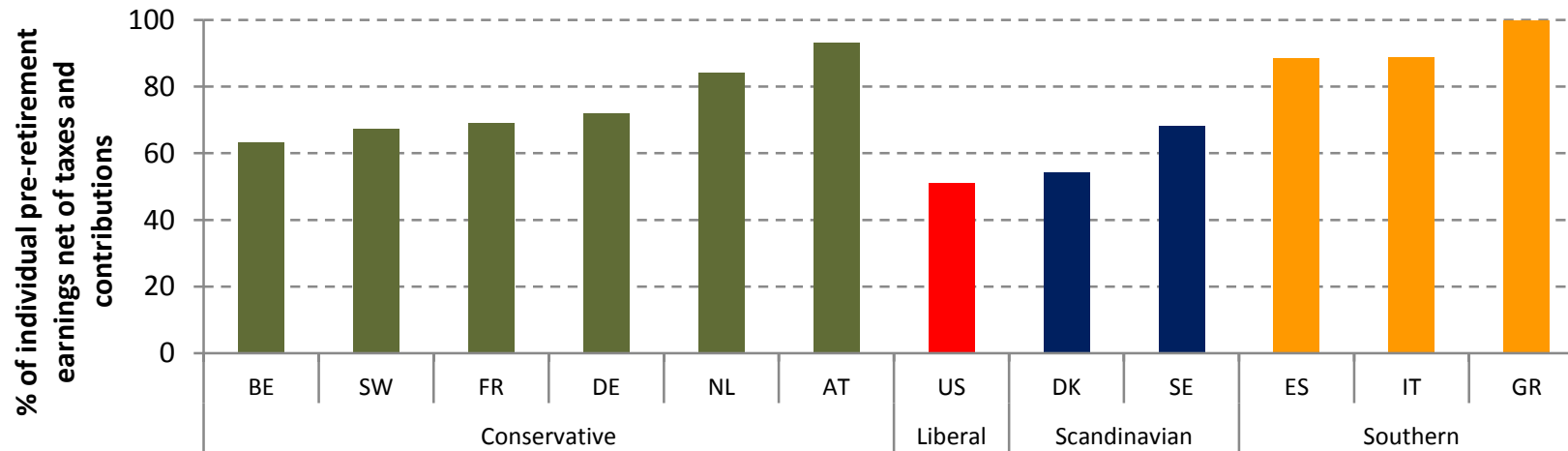
## Economic Well-Being

### GDP per capita in PPS



Source: Eurostat; 2004 for European countries and 2006 for the U.S.

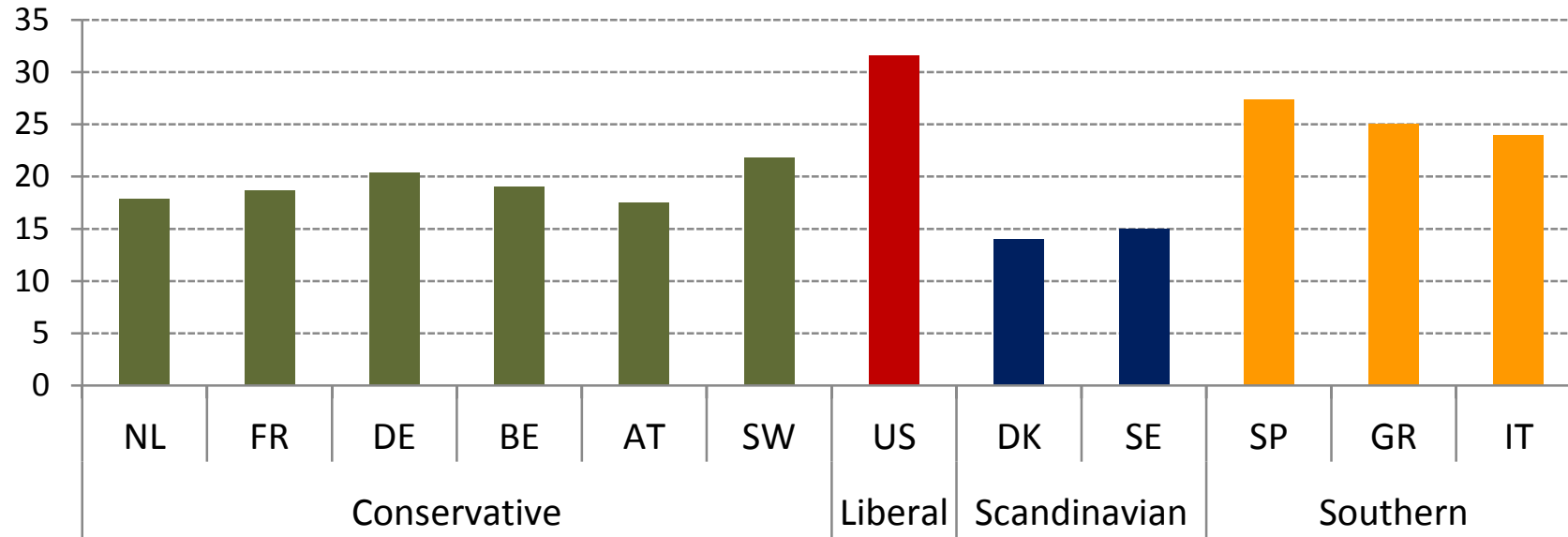
### Pension Replacement Rate



Source: OECD 2005 Data

**Economic  
Well-Being**

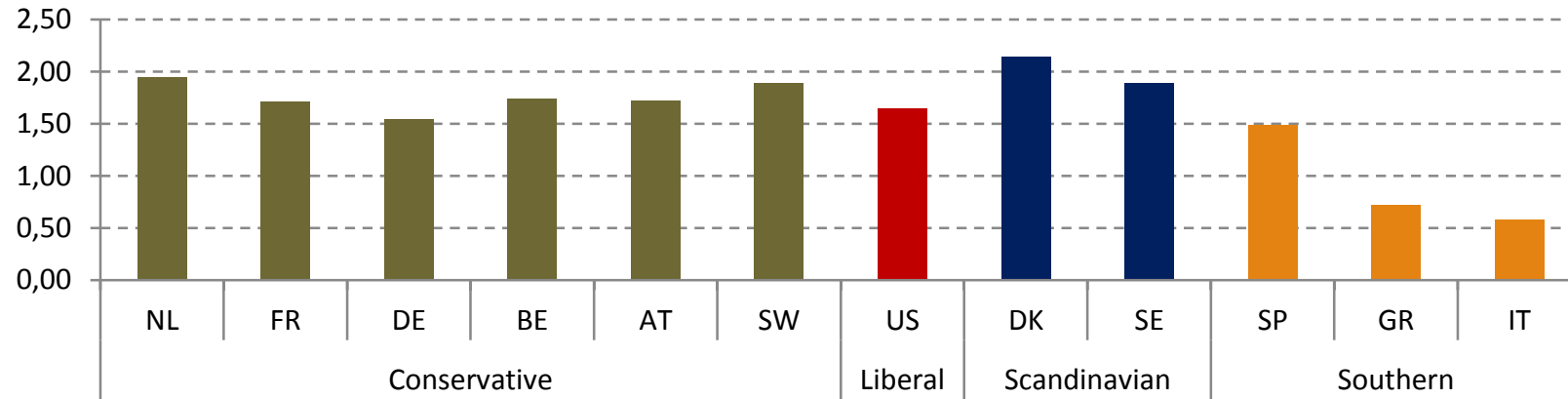
**Poverty rate after taxes (%), population 65+**



Source: OECD Data. 2004 data available for all European countries except for Denmark, France, the Netherlands and the U.S. which data came from 2005 and Switzerland 2009

## Government Effectiveness: Perception of the quality of public services

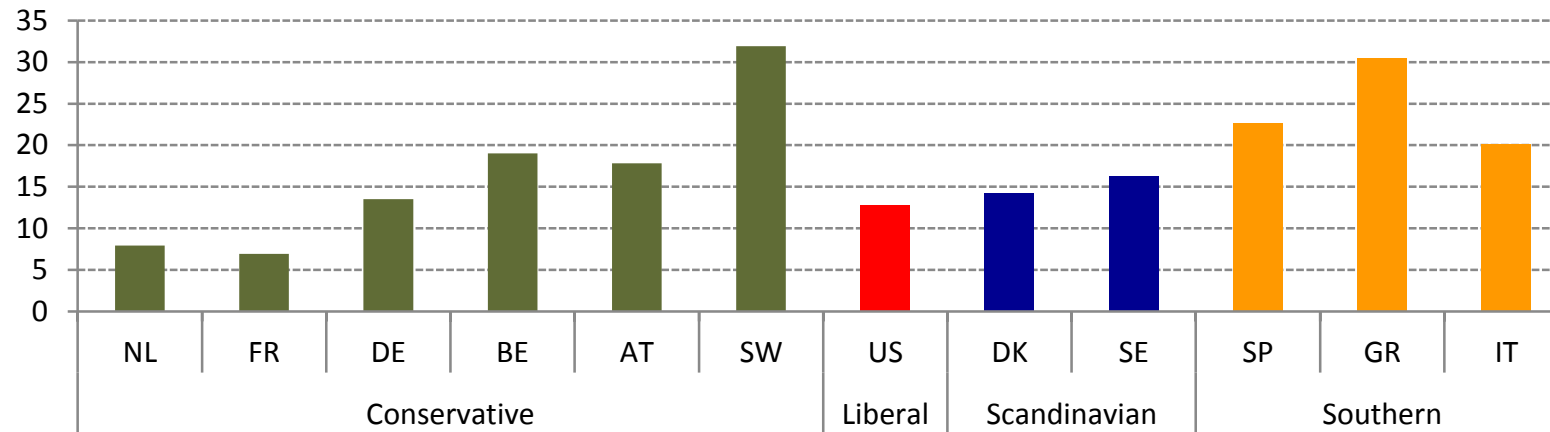
Social Well-Being



Source: OECD Data. 2004 for the European countries and 2006 for the U.S.

## Out-of-Pocket Healthcare Costs, % of total expenditure on health care

Expenditure on health



Source: OECD Data. 2004 for all European countries except for Greece which data came from 2009 and 2006 for the U.S.

# Statistical Analysis

## Multilevel Logistic Regression (country as level-2)

- Model 1 – National Characteristics
- Model 2 – National + Individual Characteristics



*Demographic:* age and sex

*Socio-economic :* number of years of education,  
living arrangements and health

# Statistical Analysis

## Effect of each national-level indicator and the outcome using a multilevel analysis

Variables	GDP	Government effectiveness	Poverty rates	Pension Replacement Rate	Out-of-pocket
<b>Life satisfaction</b>	0.004**	0.511 ***	-0.05***	0.001	-0.013***
Variation between countries	0.2573(0.0325)	0.1897 (0.0198)	0.0548 (0.0083)	0.2077 (0.0344)	0.1386(0.0100)
<b>Depression</b>	-0.034***	-1.019***	-0.113***	0.056***	0.046***
Variation between countries	0.1448 (0.0234)	0.2080 (0.0071)	0.2739 (0.0117)	0.1014 (0.0123)	0.2105 (0.0211)

Source : SHARE (2004) and HRS (2006)

Lower poverty rates, more satisfied the people are

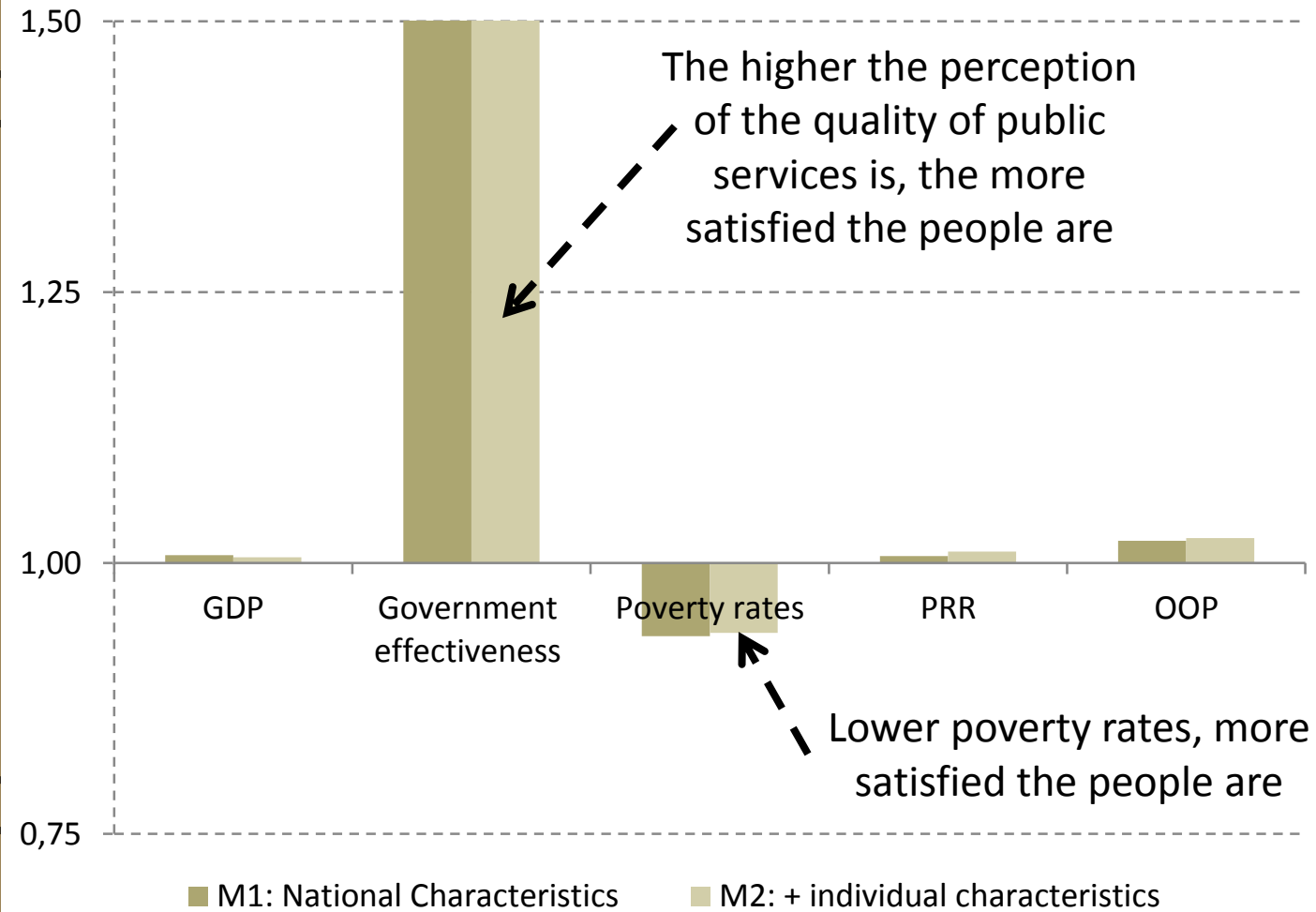
Lower expenditure more satisfied the people are

## Statistical Analysis: Odds ratio of individual characteristics

	Life Satisfaction	Depression
Age	(+) 1.02	
Sex		(+) 1.37
Education		(-) 0.95
Alone		
Spouse	(+) 1.45	(-) 0.64
Children		
ADL/IADL	(-) 0.81	(+) 1.23
Comorbidity	(-) 0.90	(+) 1.16

# Life Satisfaction: Multilevel Logistic Results (Odds Ratio)

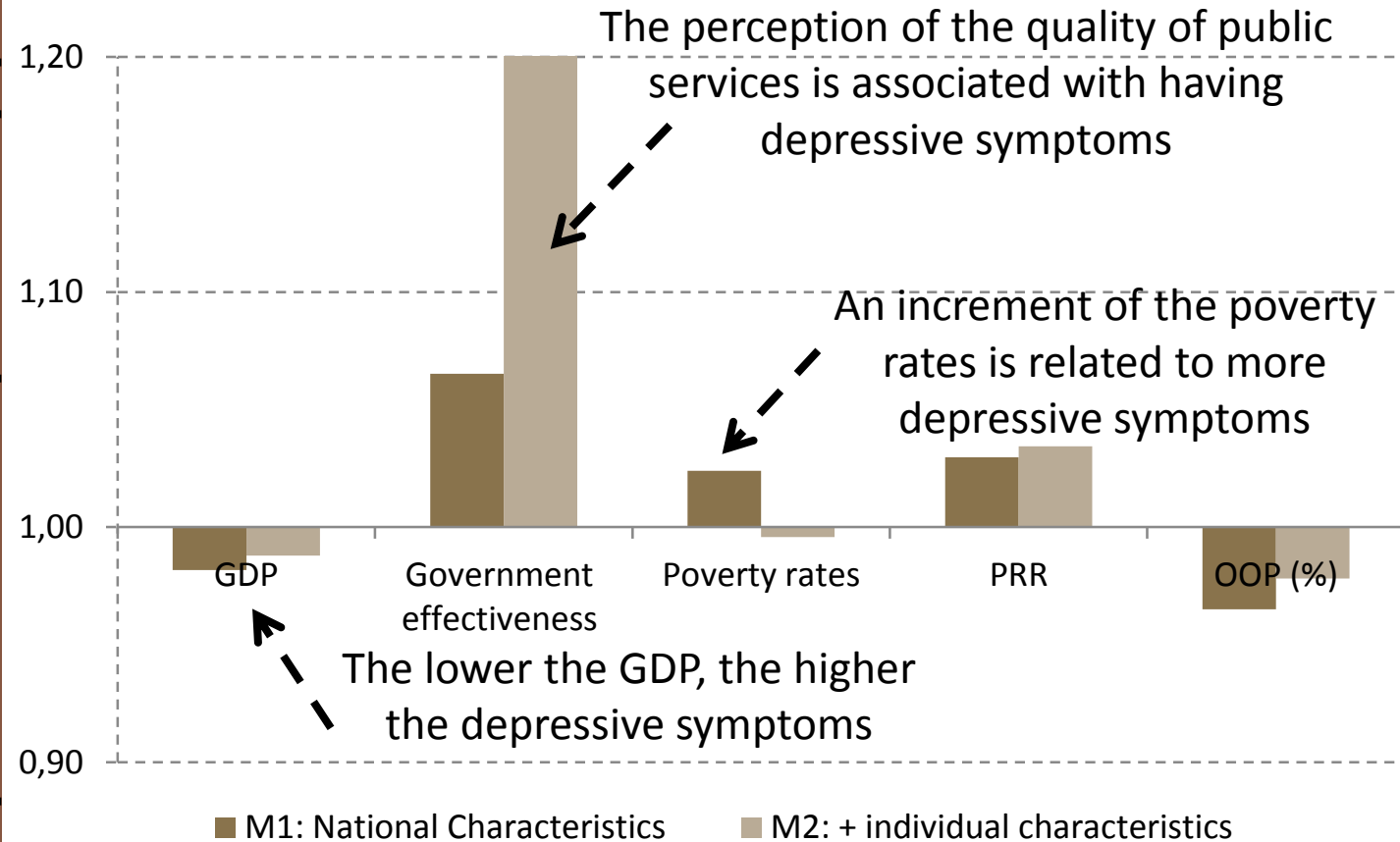
Variables	M1: National Characteristics		M2: + Individual Characteristics	
	Odds	p-value	Odds	P-value
<b>LIFE SATISFACTION</b>				
GDP	1.01 ***		1.01 ***	
Gover Effectiveness	1.89 ***		1.85 ***	
Poverty rates (%)	0.93 ***		0.94 ***	
Pension RR	1.01 ***		1.01 ***	
OOP (%)	1.02 ***		1.02 ***	
Age			1.02 ***	
Sex			0.92	
Education			1.02	
Alone			1.07	
Spouse			1.45 ***	
Child in the hh			1.01	
Number of adliadl			0.81 ***	
Number of comorb			0.90 ***	
Constant	2.89 ***		0.41 *	
Variances and covariances of random effects				
level 2 (country)	.01200027	(.00080342)	.0088999	(.00208977)





# Depression: Multilevel Logistic Results (Odds Ratio)

Variables	M1: National Characteristics		M2: + Individual Characteristics	
DEPRESSION	Odds	p-value	Odds	p-value
GDP	0.98 ***		0.99 ***	
Government Effect.	1.07 ***		1.20 ***	
Poverty Rates (%)	1.02 ***		1.00	
Pension RR	1.03 ***		1.03 ***	
OOP (%)	0.97 ***		0.98 ***	
Age			1.00	
Sex			1.37 ***	
Education			0.95 ***	
Live Alone			1.16	
Spouse			0.64 **	
Child in the hh			0.74	
Number of adliadl			1.23 ***	
Number of comorb			1.16 ***	
Constant	0.24 ***		0.26 ***	
Variances and covariances				
of random effects	.00460326	(.00043943)	.01650302	(.00225082)
level 2 (country)				



# Conclusions

Life satisfaction and depression are associated with the generosity of national programs

Those living in countries with more generous provisions are more satisfied

*Life Satisfaction* is particularly affected by poverty rates and government effectiveness

*Depression* is particularly affected by lower levels of GDP

***Policies and programs that influence the lives of older people strongly relate to well-being***

***Both individual and national-level indicators are important in successful aging***

# Future considerations

---

Cross-level interactions:

- Do we think state policies are more important for women, for those living alone, for those with disability

We are looking at more variables to add new controls:

- Individual income indicator
- Expenditure per old person on things old people need – i.e. Long-term care
- 

We want to further develop the multilevel analysis

***Suggestions and/or comments are very welcome!***

**Thank you for your attention**

# Question wording

## Life Satisfaction

Response options were somewhat different on the surveys.

SHARE responses are: very satisfied = 1, somewhat satisfied = 2, somewhat dissatisfied = 3, and very dissatisfied = 4.

HRS responses were: strongly agree = 1, somewhat agree=2, slightly agree = 3, strongly disagree = 4, somewhat disagree=5, slightly disagree = 6.

In both, SHARE and HRS, we grouped the satisfied or agreement responses (1 and 2 for SHARE, and 1, 2 and 3 for HRS) versus the non-satisfied or non-agreement responses (3 and 4 for SHARE, and 4, 5, and 6 for HRS) into a binary variable, with 1 indicating the positive response option.

## Depression

SHARE response options were almost all of the time = 1, most of the time = 2, some of the time = 3, and almost none of the time= 4.

HRS response options were all of the time=1, most of the time=2, some of the time =3, a little of the time=4, none of the time= 5.

For both, SHARE and HRS, we considered the most severe response - all of the time - as positive endorsement of that depressive symptom. We created a binary depression variable with 1 indicating the presence of any depressive symptoms, and 0 indicating no symptoms.

**Individual level correlations**

**Country level correlations**

Variable	Mean	Std. Dev.	Min	Max
GDP	130.6193	20.51011	94	154
GoverEffec~t	1.60	0.36	0.58	2.14
poverty_M~c	24.41221	6.424741	14	31.6
PRR	67.38449	16.52238	51	99.9
OOP_per	16.15177	6.073924	6.9	31.9

Variable	Mean	Std. Dev.	Min	Max
GDP	120.4167	16.23385	94	154
GoverEffec~t	1.58	0.47	0.58	2.14
poverty_M~60	.2103098	.0518827	.14	.316
PRR	74.88333	15.69556	51	99.9
dis_pension	1.25875	.6559245	.1	2.3
OOP	602.5382	328.9663	213.5196	1253.871

	GDP	GoverE~t	povert~c	PRR	OOP_per
GDP	1.0000				
GoverEffec~t	0.4676	1.0000			
poverty_M~c	0.5716	-0.2712	1.0000		
PRR	-0.8584	-0.5301	-0.4485	1.0000	
OOP_per	-0.5788	-0.5510	-0.0921	0.5659	1.0000

	GDP	GoverE~t	pover~60	PRR	dis_pe~n
OOP					
GDP	1.0000				
GoverEffec~t	0.6210	1.0000			
poverty_M~60	-0.0057	-0.5237	1.0000		
PRR	-0.6691	-0.6232	0.1148	1.0000	
dis_pension	0.3029	0.5663	-0.5638	-0.0492	1.0000
OOP	0.1587	-0.2346	0.4731	0.0168	-0.1375

**Individual level correlations**

Variable	Mean	Std. Dev.	Min	Max
GDP	130.6745	20.72148	94	154
GoverEffec~t	1.60	0.37	0.58	2.14
poverty_M~60	.2455781	.0641242	.14	.316
PRR	67.16448	16.69091	51	99.9
dis_pension	1.084938	.5895595	.1	2.3
OOP	693.5789	280.1227	213.5196	1253.871

	GDP	GoverE~t	pover~60	PRR	dis_pe~n	OOP
GDP	1.0000					
GoverEffec~t	0.4691	1.0000				
poverty_M~60	0.5759	-0.2671	1.0000			
PRR	-0.8571	-0.5354	-0.4396	1.0000		
dis_pension	-0.1970	0.4622	-0.6853	0.2719	1.0000	
OOP	0.4256	-0.2862	0.6866	-0.3052	-0.4530	1.0000

**Country level correlations**

. corr GDP GoverEffecEst poverty\_M\_65\_60\_per PRR OOP\_per, means (obs=12)

Variable	Mean	Std. Dev.	Min	Max
GDP	120.4167	16.23385	94	154
GoverEffec~t	1.58	0.47	0.58	2.14
poverty_M~c	21.03098	5.188275	14	31.6
PRR	74.88333	15.69556	51	99.9
OOP_per	17.8	7.783199	6.9	31.9

	GDP	GoverE~t	povert~c	PRR	OOP_per
GDP	1.0000				
GoverEffec~t	0.6210	1.0000			
poverty_M~c	-0.0057	-0.5237	1.0000		
PRR	-0.6691	-0.6232	0.1148	1.0000	
OOP_per	-0.2977	-0.4161	0.3122	0.3624	1.0000

## Welfare Regimes

## Countries

### Conservative

Medium levels of de-commodification: Benefits depend on a person's position in the labor market and within the family

Austria, Belgium, France, Germany, Netherlands, Switzerland

### Liberal

Low levels of de-commodification: Benefits are limited and means-tested and there is limited redistribution of income

United States

### Scandinavian

High levels of de-commodification,: High levels of need met, high levels of redistribution, and generous benefits that are not means tested and not dependent on individual's contribution

Denmark and Sweden

### Southern

Fragmented system of welfare provision: Diverse income maintenance schemes that range from the meager to generous; and welfare services, particularly the healthcare system, that provide only limited and partial coverage

Greece, Italy, and Spain



# Well-Being by Welfare Regime

