ACTIVE AGEING INDEX: APPLICATION TO SPANISH GEOGRAPHICAL SCALES. AN OPPORTUNITY TO REFLECT ON THE AAI

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Measuring the unmeasurable?

- Social phenomena of outstanding importance (wellbeing, quality of life, human development, social progress, exclusion,…)
  - Broad, Multidimensional, Difficulties for operationalizing

- International operations aim to measure heterogeneity: catalogues to explore….
  - Concepts
  - Methodology
  - Structure
  - Geographical settings

- General-purpose handbooks for constructing social measurements (i.e)
  - Cecchini, S. (2005). *Indicadores sociales en América Latina y el Caribe.* CEPAL
  - OCDE (2008). *Handbook on Constructing Composite Indicators. Methodology and user guide*
  - Foa, R.; Tanner, J.C. (2011). *Methodology of the Indices of Social Development*

And, what about the ageing?

- Some few examples

  - Indicators of Quality of Life – CELADE

  - Aging Vulnerability Index and Global Aging Preparedness Index - Centre for Strategic and International Studies

  - Global Age Watch Index (GAWI) –HelpAge International

  - Active Ageing Index (AAI) – UNECE, European Commission, European Centre for Social Welfare Policy and Research

Objectives

- Reflect on the methodology proposed by the UE Active Ageing Index

- Adapt to Spanish regions, and its potential and limitations

- Evaluation of the general/specific data sources

- Future steps to adapt AAI
  - To Latin American countries
  - To individual settings (ELES, SHARE)

Adjusting AAI to Spain

- Conditions

  - To follow up the design and implementation of AAI by the Expert Group and further developments

  - To adapt it to the Spanish data, according to the administrative geographical settings
    - 17 autonomous communities or regions
    - 2 self-governing cities, Ceuta and Melilla

  - To use data drawn from official sources

  - OECD index construction methodology

OCDE framework

Table 1. Process for setting up the Active Ageing Index

Steps	Definition	Actions	1st (current) Stage	2nd (further) Stage
1. Theoretical framework	Basis for the selection and combination of variables into a meaningful composite indicator	• Clear definition of the multidimensional phenomenon • Identification of sub-groups • Selection criteria for the variables	✔	✔
2. Data selection	Criteria based on soundness, measurability, country coverage, and relevance. Proxy variables allowed, if needed	• Quality of indicators • Strengths and weaknesses of indicators • Summary table on data characteristics	✔	✔
3. Imputation of missing data	Procedures to complete datasets	• Estimation of missing values. • Reliability of imputations • Outliers detection		✔
4. Multivariate analysis	Procedures to study the overall structure of the data	• Data structure and main dimensions • Groups of indicators and/or ofindividuals • Statistical validation of data		✔
5. Normalization	Data comparability	• Normalisation procedure(s) • Outliers and scale adjustments, if necessary. • Data transformation, if necessary.		✔
6. Weighting and aggregation	Basis to adjust to theoretical framework	• Procedures(s) for weighting and data aggregation • Correlation and compensability among indicators issues		✔
7. Robustness and sensivity	Process to gain robustness of the composite indicato	• Multi-modelling approach to build the overall indicator, • Uncertainty detection and its influence		✔
8. Back to data	Drivers for an overall good or bad performance and analysis	• Individuals analysis at the indicator level • Correlation and causality • Indicators ande sub-components effects on the composite indicator	✔	✔
9. Links to other variables	Correlation with other existing indicators and/or variables	Data-driven explanations based on the results	✔	✔
10. Visualisation	Data visualisation to gain interpretability	• Adequate interpretational tools for the audience • Presentation of the composite indicator results in a clear and accurate manner	✔	✔
11. Dissemination				

Theoretical foundation

- Concept of Active Ageing (AAI) based on WHO

  "...the situation where people continue to participate in the formal labour market as well as engage in other unpaid productive activities (such as care provision to family members and volunteering) and live healthy, independent and secure lives as they age"

- Literature provides some limitations:

  - lack of consensus over differentiation between AA and other similar and interrelated ones -healthy, successful, productive ageing,…-

  - highly correlated with other broader concepts (welfare, quality of life)

  - confusion and inevitable tension, given its complexity as regards its definition and use

Data selection

- Process requiring identifying criteria which ensure the quality of the data setting up the AAI
- Expert Group decisions
  - the gender and age perspective
  - indicators which provide results of processes
  - comparability between geographical areas (national initially, extending to other geographical scales)
  - using data with continuity over time
  - accuracy, reliability and validity, guaranteed when figures are taken from national statistics offices
  - normative value judgement of being a positive indicator
  - three domains (employment, participation, and independent, healthy and secure living) matching the actual activity of older people contributing positively to the society,
  - another domain measuring the capacity and the enabling environment aspects of active ageing

Spanish data quality

- INE as the main data provider

- Some general features about official data…
  - International and EU standards
  - Registries and mainly surveys tend to be multidimensional: economic situation, health, ICT use, household position….
  - Policy-oriented data according to a general plan for production

- …but also limitations
  - Not complete standardization/homogenization of concepts
  - Legal and administrative changes
  - No temporary follow-up of some data operations
  - No properly coverage of all data at regional level

Table 2. Data selection for the Spanish regions AAI

Domains, Indicators	Data sources		
	AAI-EU	AAI-Spain	Usability
1) Employment			
1.1 Employment rate 55-59	EU-LFS 2010	EAPS-2013	Identical
1.2 Employment rate 60-64	EU-LFS 2010	EAPS-2013	Identical
1.3 Employment rate 65-69	EU-LFS 2010	EAPS-2013	Identical
1.4 Employment rate 70-74	EU-LFS 2010	EAPS-2013	Identical
2) Participation in society			
2.1 Voluntary work	EQLS-2011	CENSUS-2011	Alternative
2.2 Providing care to own and grandchildren	EQLS-2011	CENSUS-2011	Alternative
2.3 Provinding care to older adults	EQLS-2011	CENSUS-2011	Alternative
2.4 Political participation	EQLS-2011	LCS-2006	Close
3) Independent, healthy and secure living			
3.1 Physical exercise	EB-2010	NHS-2011	Identical
3.2 Access to health	SILC-2010	LCS-2013	Identical
3.3 Living independently	SILC-2010	CENSUS-2011	Alternative
3.4 Financial security: Relative median income	SILC-2010	LCS-2013	Identical
3.5 Financial security: No poverty risk for older persons	SILC-2010	LCS-2013	Identical
3.6 Financial security: No severe material deprivation for older persons	SILC-2010	LCS-2013	Alternative
3.7 Physical safety	ESS-2010	LCS-2013	Alternative
3.8 Lifelong learning	EU-LFS-2011	EAPS-2013	Identical
4) Capacity and enabling environment for active and healthy ageing			
4.1 Remaining life expectancy at age 55	EHLEIS	HLE-Spain-2011	Alternative
4.3 Share of healthy expectancy at age 55	EHLEIS	HLE-Spain-2011	Alternative
4.3 Mental well-being	EQLS-2011	ESHE-2009	Close
4.4 Use of ICT	EU-ICT	ICT-H-2013	Identical
4.5 Social connectedness	ESS-2010	LCS-2006	Close
4.6 Educational attainment	EU-LFS 2010	EAPS-2013	Identical

Usability

Identical source and content

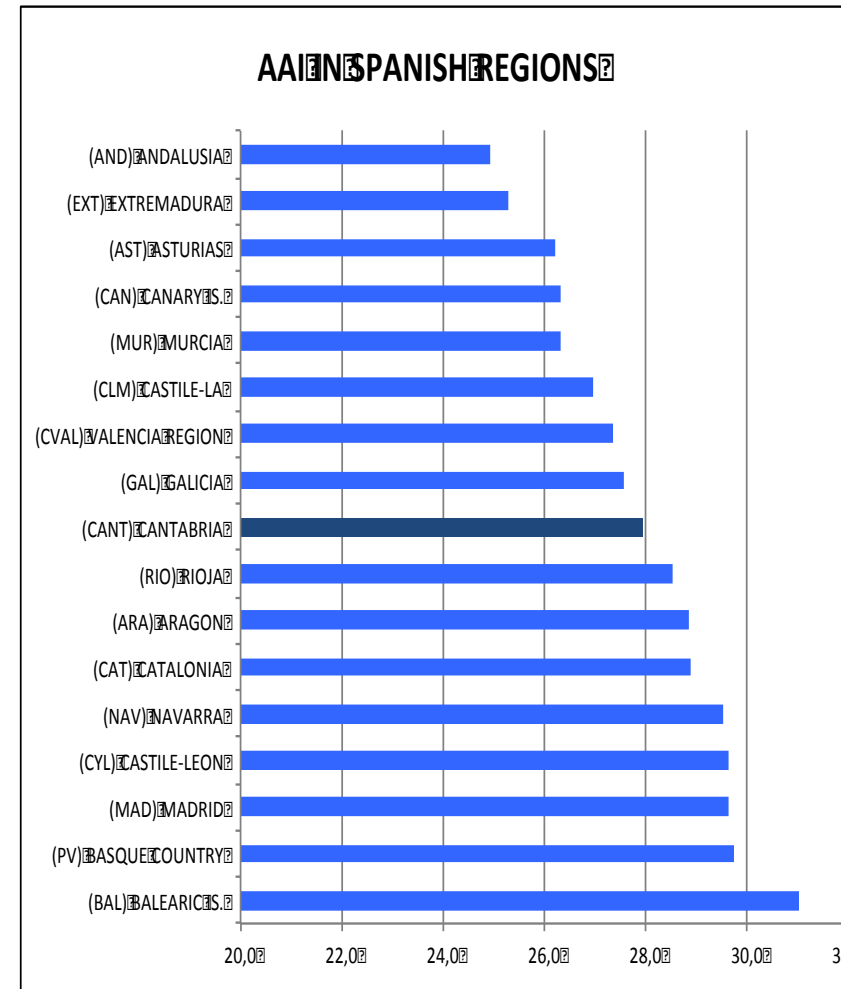**Close** content, other source

Alternative source and content

Criteria for data selection

- Data sources equivalent to those of EU AAI
- 2013 as reference, or nearest (available) year
- If not, sources are sought for alternative or close indicators
- Main sources
  - Economically Active Population Survey (EAPS) as comparable with the EU Labour Force Survey (EU-LFS) and ILO definitions: multidimensional, multi-level representativeness, specific modules
  - The Living Conditions Survey (LCS): annual survey addressed to households, cross-sectional data, geographical representativeness, specific modules (LCS 2006, Political participation)
  - 2011 Census, to provide alternative information on social participation and care indicators
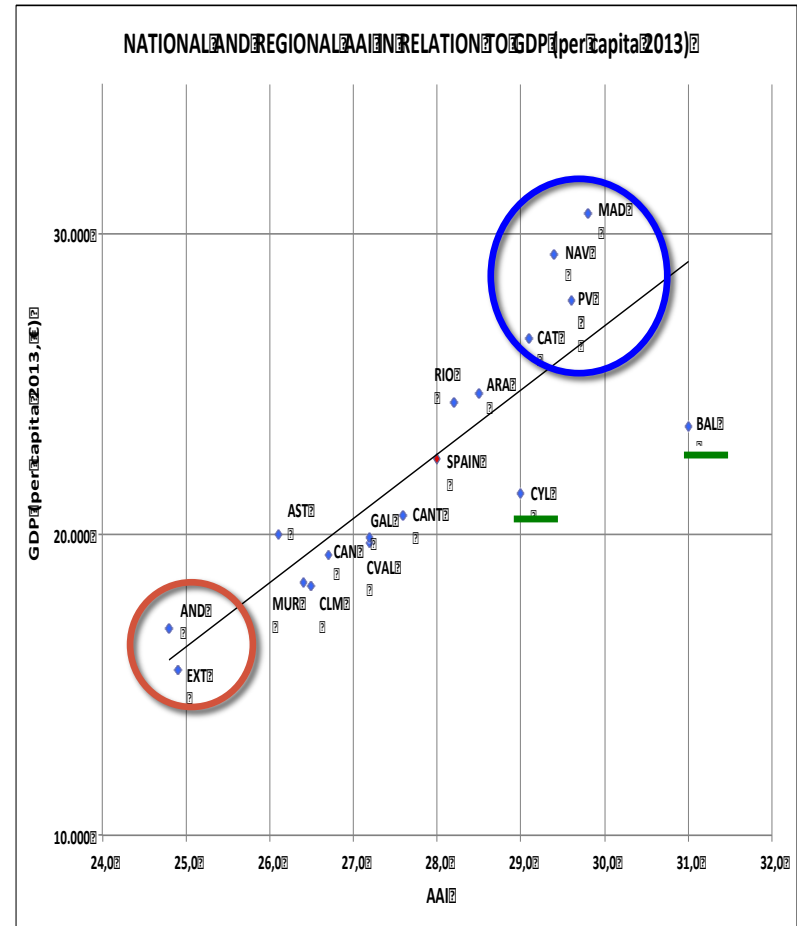 - Other sources, EHSE, NHS, ICT-H

Preliminary results

- Spain ranks 17/28 in EU AAI
- It is slightly smaller than in AAI (27.9 vs 32.8)
- Cantabria: Spanish average
- Higher: North plus Madrid and Balearic Is. as more 'urban', services economy regions
- Lower: South, less developed and 'rural' regions (And., Extr.)

✔ considerable margin to improve the adult population active aging: policies needed to increase or to consolidate
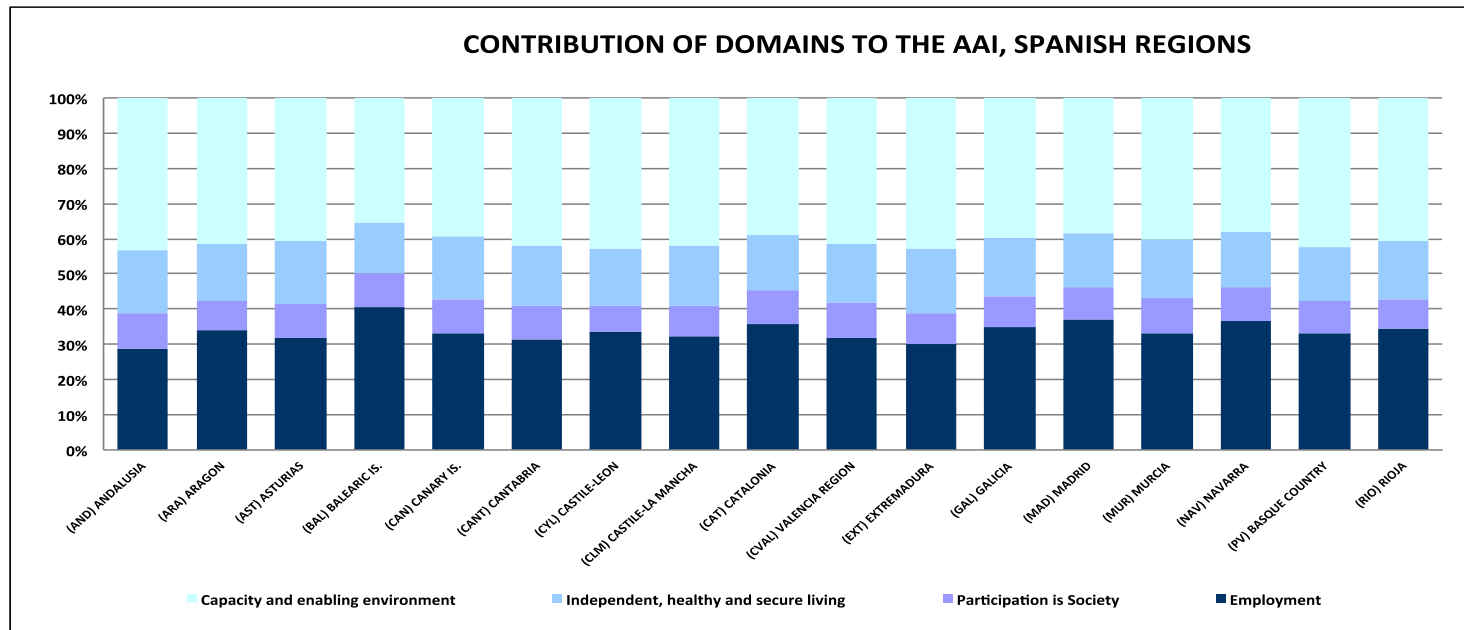

AAI IN SPANISH REGIONS

Spanish regions AAI in context

- AAI vs 2103 GDP (p.c.)
- Positive relation (r^2:0.71)
- Spain in the centre
- Andalusia and Extremadura in the far bottom left
- Madrid, Navarre, Basque Country and Catalonia as opposed
- Well-placed in the AAI, but opposed examples:
  - Balearic Is. (BAL) over the Spanish GDP as a service economy
  - Castile and León (CYL) below the Spanish GDP, but with more rural basis

NATIONAL AND REGIONAL AAI IN RELATION TO GDP (per capita 2013)

AAI domain contributions

- Gender imbalance with higher figures among men: all regions; the lower the AAI, the greater the differences
- Similar contributions than those in EU AAI:
  - Slightly higher in 'Employment' and 'Capacity and enabling environment' (40-33%, 32-28%)
  - The opposite in 'Participation in society' and 'Independent, healthy and secure living'

CONTRIBUTION OF DOMAINS TO THE AAI, SPANISH REGIONS

AAI domain contributions (cont…)

- **Employment**: figures diminish as people age as usual
  - 50% in 55-59, 58% men
  - 2% among 65+
  - More developed regions show higher figures
  - Recent trend among older to work after retirement age

- **Participation**:
  - Indicators not strictly comparable with EU AAI due to data
  - Care provision (children, pop. with health problems)
    - More prominent among the older, mainly women
    - Family structures to support care as a general rule
    - Figures in urban regions surpass those with more rural population
  - Social participation more limited among older Spaniards: more men

AAI domain contributions (cont…)

- **Independent, healthy and secure living**: older population is well protected
  - Non-poverty and non-material deprivation risks, unmet health needs: high proportions of people covered with no differences by gender and regions
  - Risk of physical insecurity in the residential environment is higher (30%), displaying differences (more among women)
  - Few older people engaged in physical (exercise) and cultural activities (learning): more men in the former, women in the latter
- **Training for active aging**:
  - Physical components (life expectancy, mental health) are higher among women, but educational training and their capacity to engage in ICT activities predispose men
  - Social networks act in a more gender-neutral way
  - Developed regions (M, CT, BC) overtake the less ones (AN, EX, GL)

To conclude

- Three main comments in this first stage

  - Spanish AAI is conditioned by data deployed; differences with Spain as in EU AAI arise

  - Decision to find solutions for a better comparison framework

  - Analysis of regional determinants should be taken to establish an interpretative framework

Future developments

- Follow-up of the Expert Group decisions

    - Flexibility and replacement of original indicators (**++**)

    - Revision of weights according the Spanish grounds (**+**)

    - Conduction of a multivariate analysis of AAI prediction factors (**++**)

    - Explore other factors correlating the regional AAIs (**+**)

    - Evaluation of public, national and regional policies, which will be able to modify the indicators analysed in the future (**++**)

Future developments (cont...)

- Thinking on strategic (provisional) decisions

  - Deepen the **AAI theoretical grounds** to compare with the active ageing literature

  - Apply to groups of people according to **individual characteristics** (ELES, SHARE)

  - Analyse of **AAI influence** in national/regional quality of life indicators

  - Extend the AAI to other **geographical settings** (i.e. Latin America, starting with México), sharing knowledge with scientists to adapt to cultural values