

Session C:

EU Indicators for Poverty and Social Exclusion

Enlargement to Eastern European countries that took place in May 2004

- ◆ **Single major novel issue in debate on social indicators**
- **Variation in economic development – as measured by GDP per capita – much wider now**
- **Which impact on social indicators?**
 - ➔ Equivalence scale
 - ➔ National vs. area-wide poverty thresholds
 - ➔ GDP per capita and inequality

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Equivalence scale

- Example based on Italy – divide country into North and South and treat two areas as “independent countries”. Variation in GDP per capita is high enough
- Plot at-risk-of-poverty rate against parameter θ capturing economies of scale in square-root equivalence scale

$$\text{equivalent income} = \text{income} / (\text{household size})^\theta$$

- ➔ Well-known pattern to people working in income distribution → U-shape
- ➔ Population structure impacts substantially on measured differences across countries: minimum headcount at $\theta=0.35-0.45$ for South, $\theta=0.5-0.7$ for North and $\theta=0.5$ for country as a whole
- ➔ As headcount ratios change, also absolute numbers in poverty change

Two questions:

- a. Need of a *common* equivalence scale, but is the modified OECD scale recommended by Eurostat the most appropriate one?
 - According to many researchers from new EU members the answer is no
 - Also for EU15 we might ask the same question. Not clear which process led to adopt this scale
- b. Can we devise a *common* scale that is sensitive to the level of economic development?

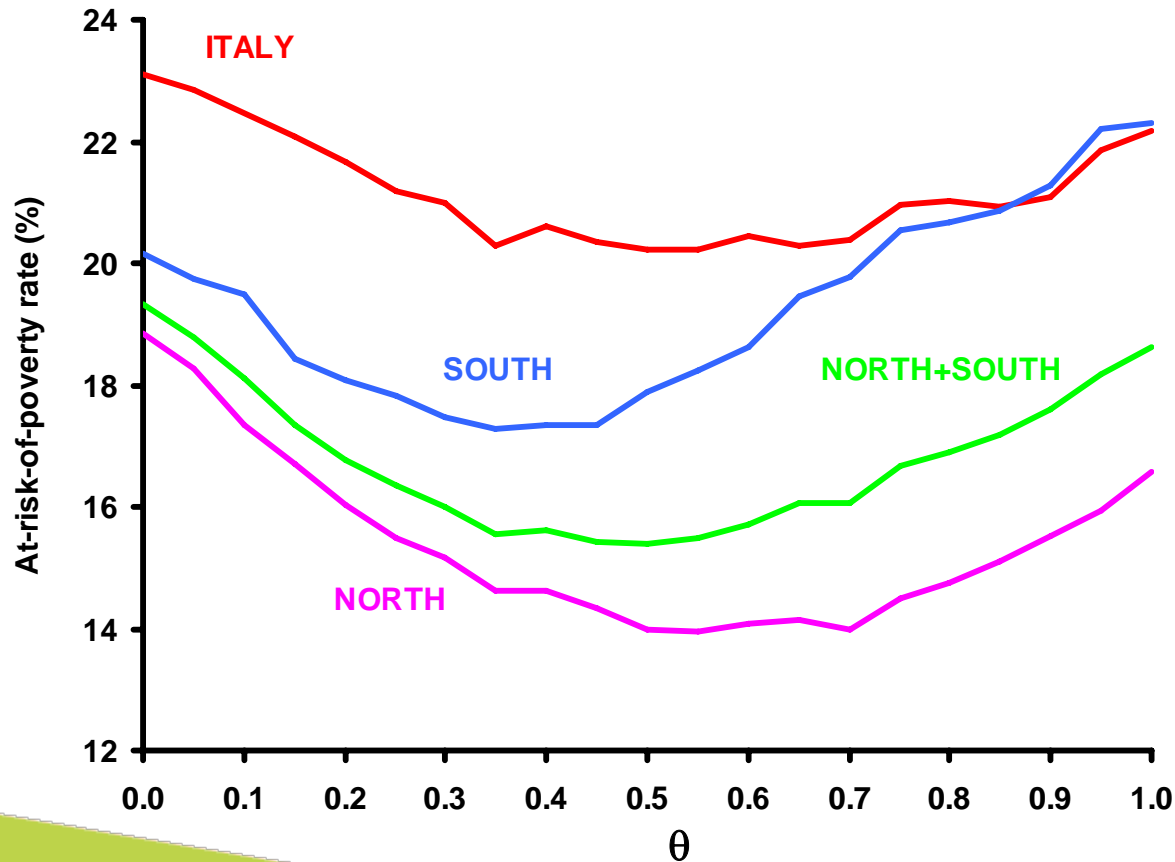


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SENSITIVITY OF AT-RISK-OF-POVERTY RATE TO EQUIVALENCE SCALES – I



$$\text{Equivalent income} = \frac{\text{Household income}}{(\text{Household size})^\theta}$$

Source: elaboration on data from Bank of Italy's Survey of Household Income and Wealth

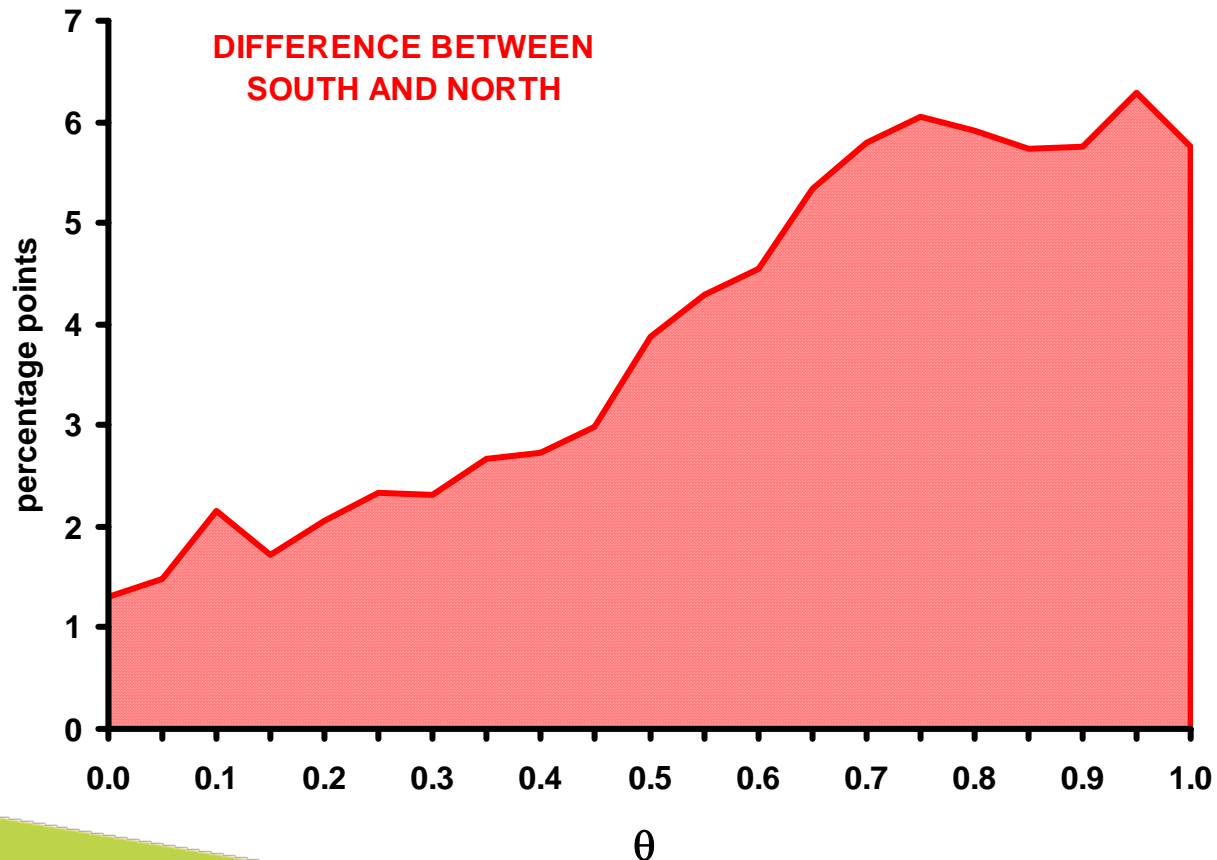


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SENSITIVITY OF AT-RISK-OF-POVERTY RATE TO EQUIVALENCE SCALES – II



$$\text{Equivalent income} = \frac{\text{Household income}}{(\text{Household size})^\theta}$$

Source: elaboration on data from Bank of Italy's Survey of Household Income and Wealth



National vs. area-wide poverty thresholds

- Report recommends to provide headcounts based on area-wide poverty thresholds as background information
- I agree but be aware not only of changes in composition – as emphasised in the Report -- but also of substantial changes in levels
- Take again the case of Italy and develop an idea due to Tony Atkinson

$$\text{poverty line} = (\text{national median})^\theta \times (\text{regional median})^{1-\theta}$$

$\theta=0 \rightarrow$ regional line

$\theta=1 \rightarrow$ national line

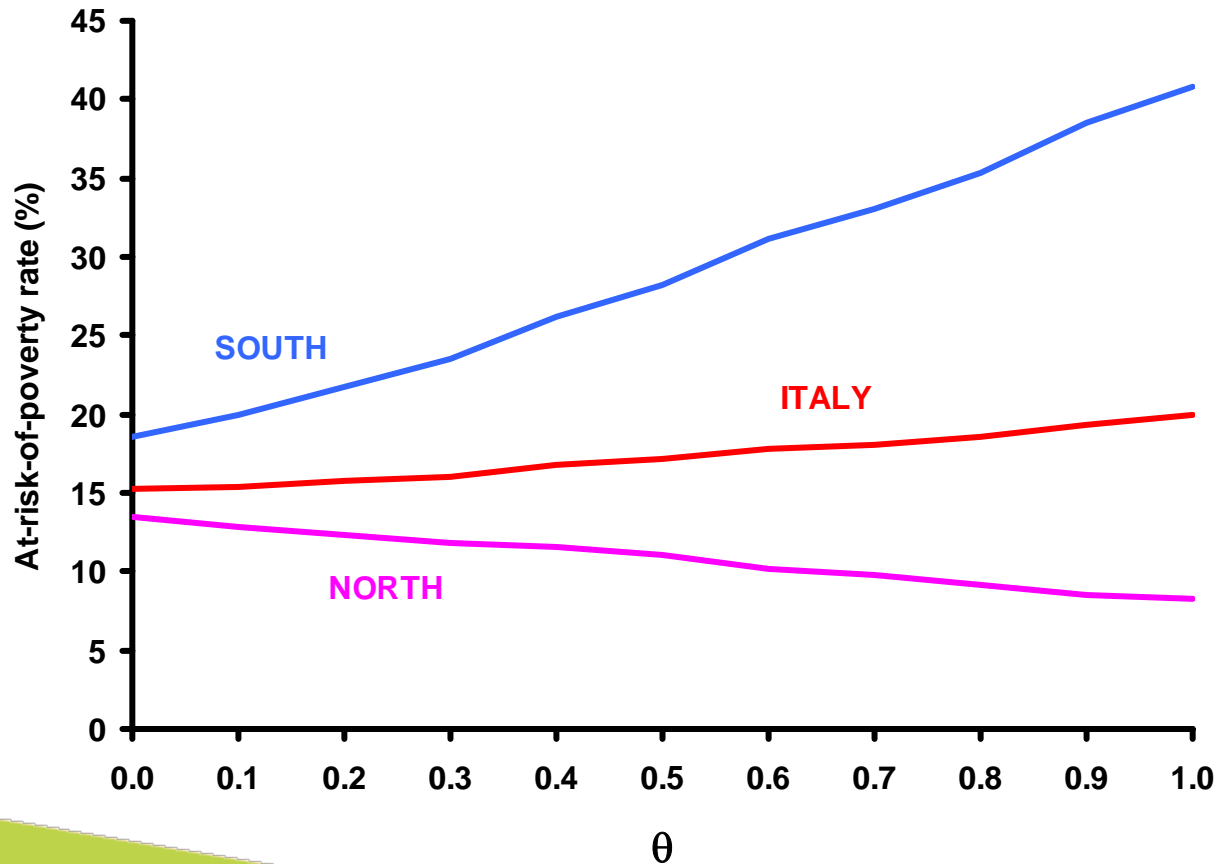
- ➔ People in poverty in Italy: from 8.8 millions with $\theta=0$ to 11.4 millions with $\theta=1 \rightarrow$ up by 29%
- ➔ We do not know what will happen for EU25, but change may be substantial
Exercise that needs to be done with great care, not least for data problems

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REGIONAL VS. NATIONAL LINES



Poverty line
 =
 0.5
 x
 (National median)^θ
 x
 (Regional median)^{1-θ}

θ=0: regional line
 θ=1: national line

Source: elaboration on data from Bank of Italy's Survey of Household Income and Wealth



GDP per capita and inequality

- Instead of looking at GDP per capita and inequality separately, merge them in a single statistics – as suggested by Amartya Sen

$$\text{Sen index} = \text{GDP per person} \times (1 - \text{Gini index})$$

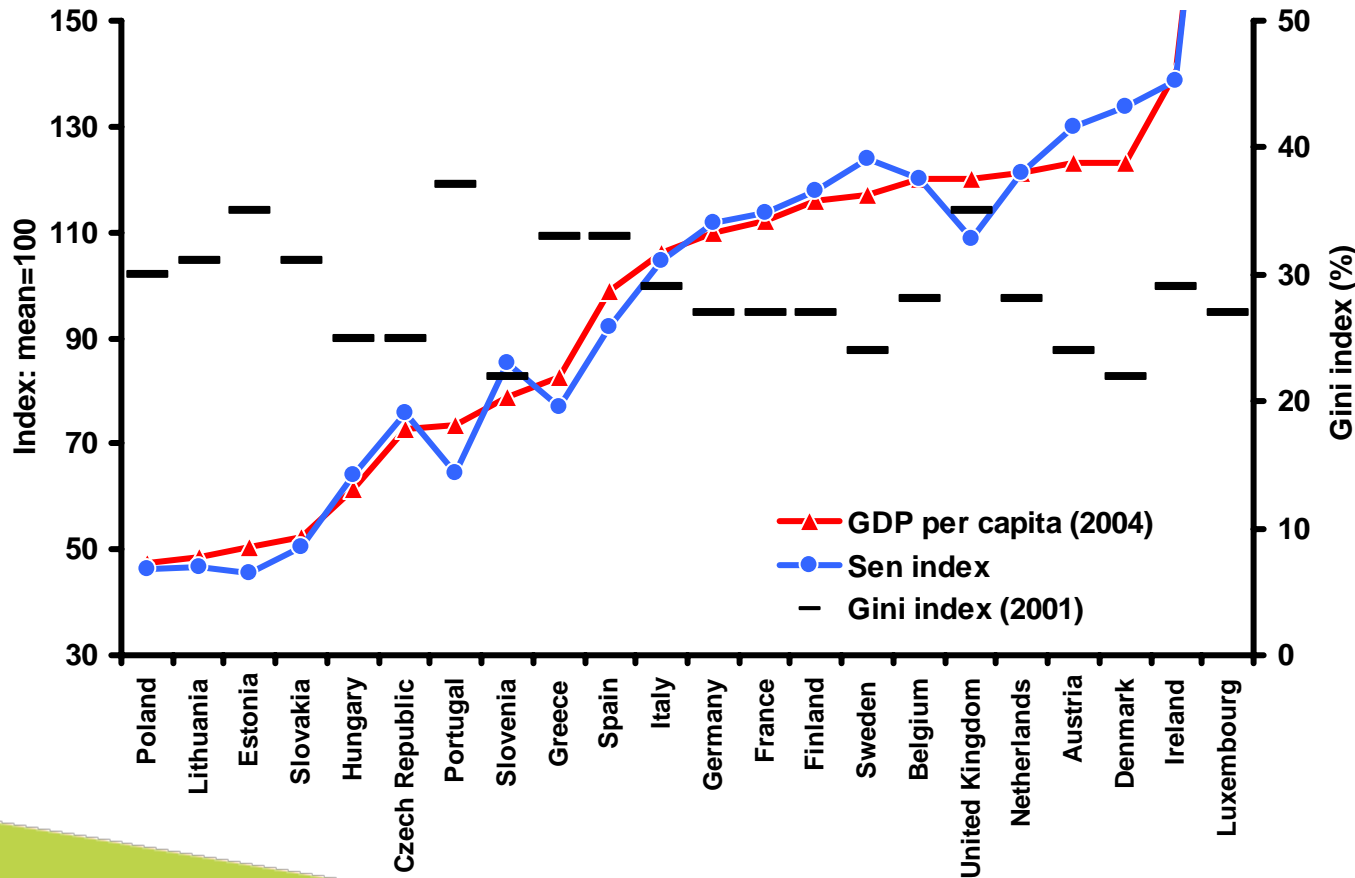
- I am not suggesting to have a new indicator, but to use available indicators together to interpret and describe situation
- Some interesting changes in ranking
 - ➔ Slovenia is already above Portugal in terms of GDP per capita, but it overcomes also Greece if we account for inequality
 - ➔ Portugal turns out to be behind Czech Republic and in line with Hungary with Sen index
 - ➔ United Kingdom is now worse than Germany, France, Sweden, Finland and Belgium because of the much higher inequality
 - ➔ Sweden, Austria and Denmark look much better

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ECONOMIC DEVELOPMENT AND INEQUALITY



$$\text{SEN INDEX} = \text{GDP PER PERSON} \times (1 - \text{GINI INDEX})$$

Source: elaboration on Eurostat data

