

**Comments:**

**The impact of introduction of funded pension schemes on intragenerational inequality in Estonia: a cohort microsimulation analysis**

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# What is the paper about?

- Microsimulation model - intragenerational distributional effects.
- Shift: DB PAYGO system (flat rate) → compulsory funded system (insurance).
- Estonia: among first European countries to shift partially from a pure PAYG scheme to fully funded in 2002.
- Data: contribution history 1999-2010 + information on participation in the funded scheme (cohort of men, born in 1980).
- Simulation distribution of future pensions (scenario's on economic and demographic changes).
- Main result: Introduction of strong link between contributions and future pensions → much higher inequality of pensions income (Gini from 0.10 to around 0.3 by 2045).
- Driving force: large inequality of labour earnings + high long-term unemployment rates.

# Highlights evaluation

1. Topic / relevance: +++++
2. Description system and reform in Estonia: +++
3. Empirics (wage profile / income inequality): ??
4. Policy conclusion: ??

# Ad 1 Relevance

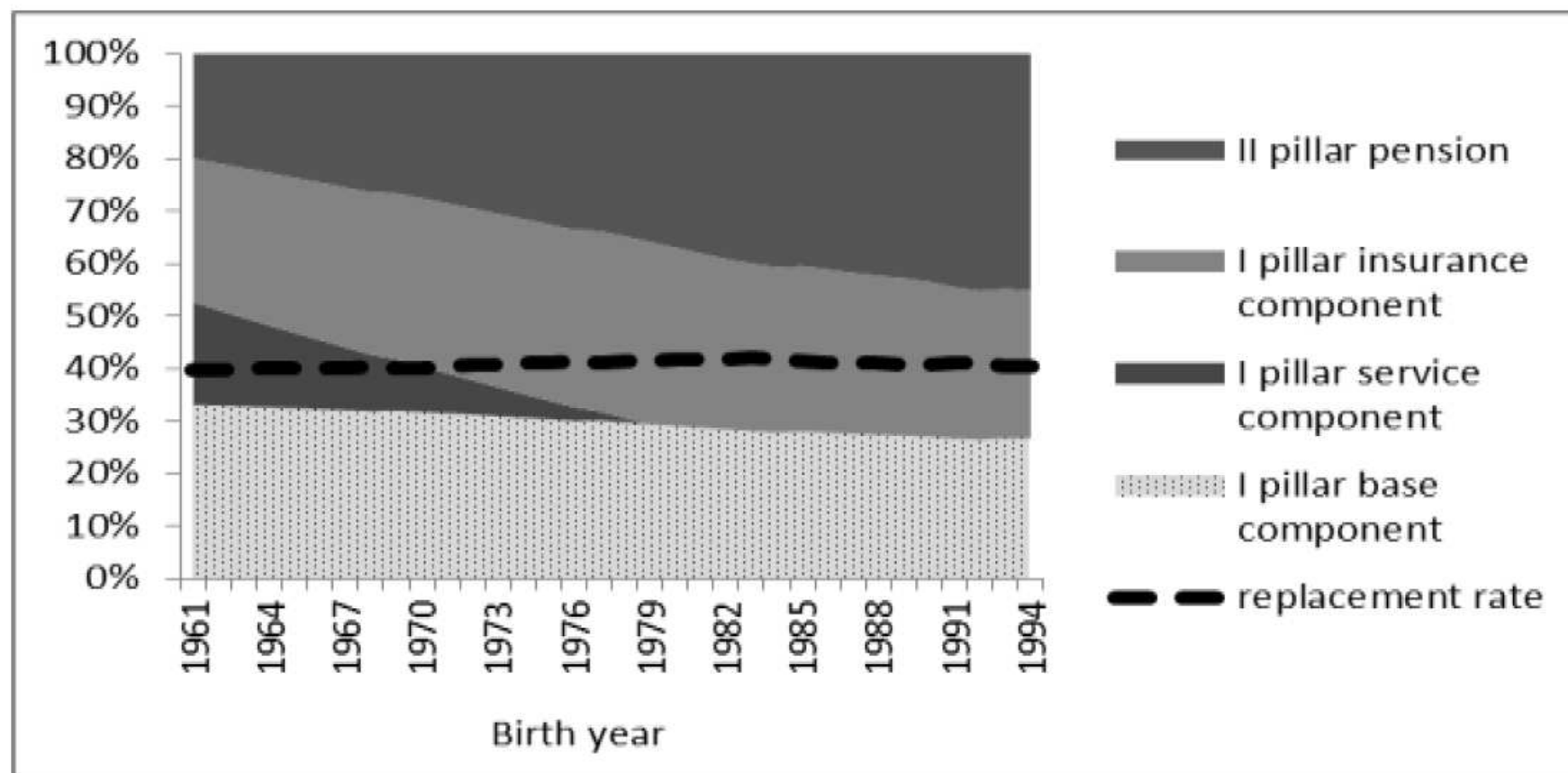
- Many EU countries: relative shift from public to private pension schemes lately
  - Ageing of populations
  - Hampering economic growth increased pressure on public finances
- Theory: since private social security plans are generally less redistributive than public social security, it can be hypothesized that the shift from public to private pension plans has led to higher levels of income inequality and poverty among the elderly.
- Paper could benefit from earlier findings

# Ad 1 Empirical studies

- High levels of public social spending associated with low levels of income inequality and poverty: Smeeding & Williamson (2001) and Goudswaard & Caminada (2010).
- Cross-sectional studies: income inequality among elderly is lower as larger shares of income of elderly consist of public pension benefits (Brown & Prus, 2004; Fukawa, 2006; Weller, 2004).
- Time-series: larger private share pensions associated with increasing income inequality / poverty among elderly: Schirle (2009) Oshio & Shimizutani (2005); Milligan (2008); Hughes & Steward (2004).
- 17 European countries 1995–2011. Van Vliet et al (2012 / 2016): no convincing evidence that shifts from public to private pensions lead to higher income inequality, although higher poverty among elderly.

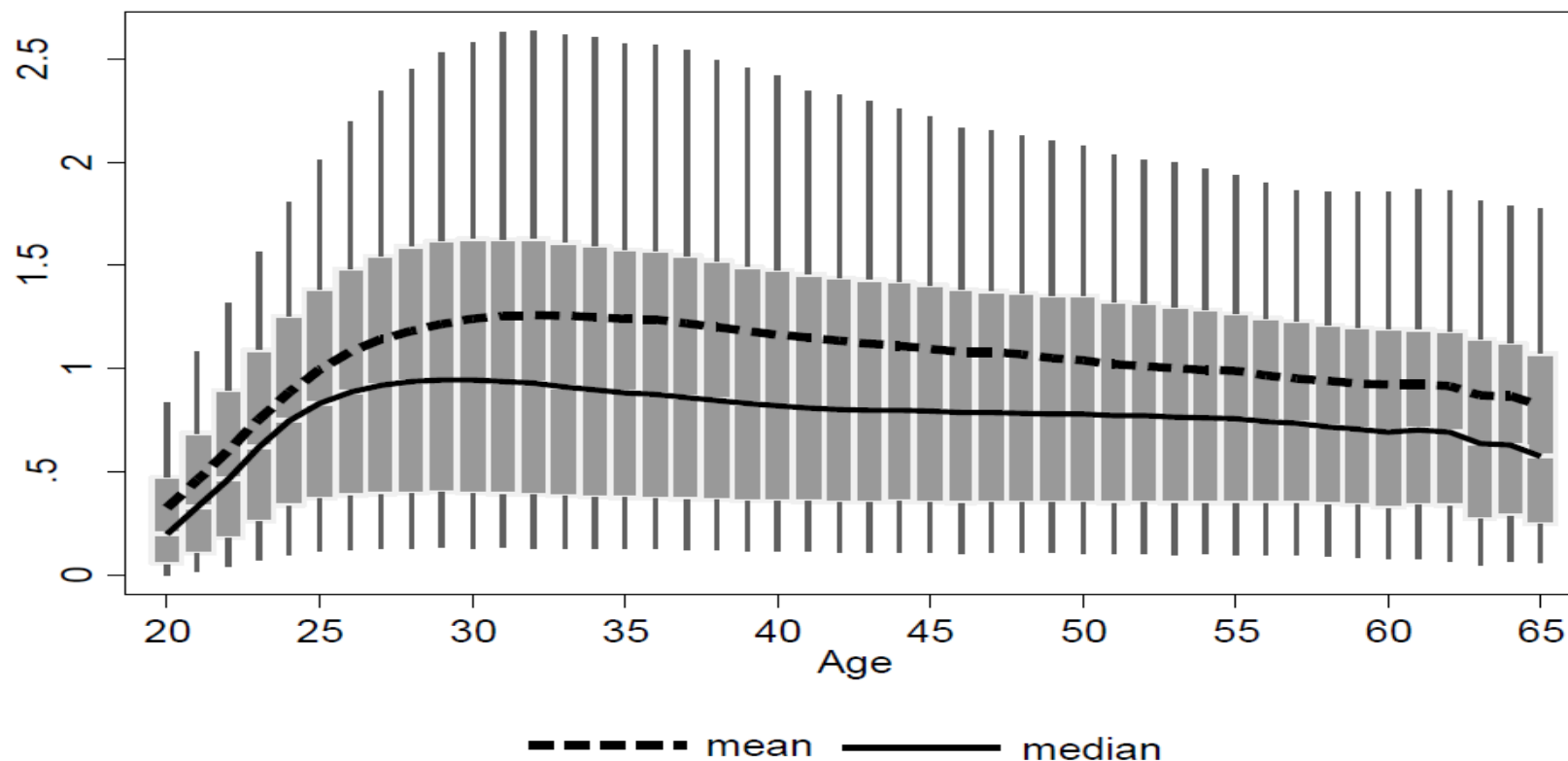
## Ad 2 Structure old-age pensions in the future

**Figure 2** The components of the old-age pension and theoretical replacement rate



# Ad 3 Empirics (age-earnings profile)

Figure 4 Age-earnings profile, 2000-2008



## Ad 3 Empirics (age-earnings profile)

- Relationship of age and wage distribution for men → to generate age-dependent wage groups.
- Median wage highest around 30. Then starts to decline.
- Wages decline - wage distribution gets narrower.
- Only man (N = 10,286).
- 1999-2010.
- Undeclared income?

More on this: Neuman & Oaxaca (2004), Wage decompositions with selectivity-corrected wage equations: A methodological note, *Journal of Economic Inequality* 2: 3–10.

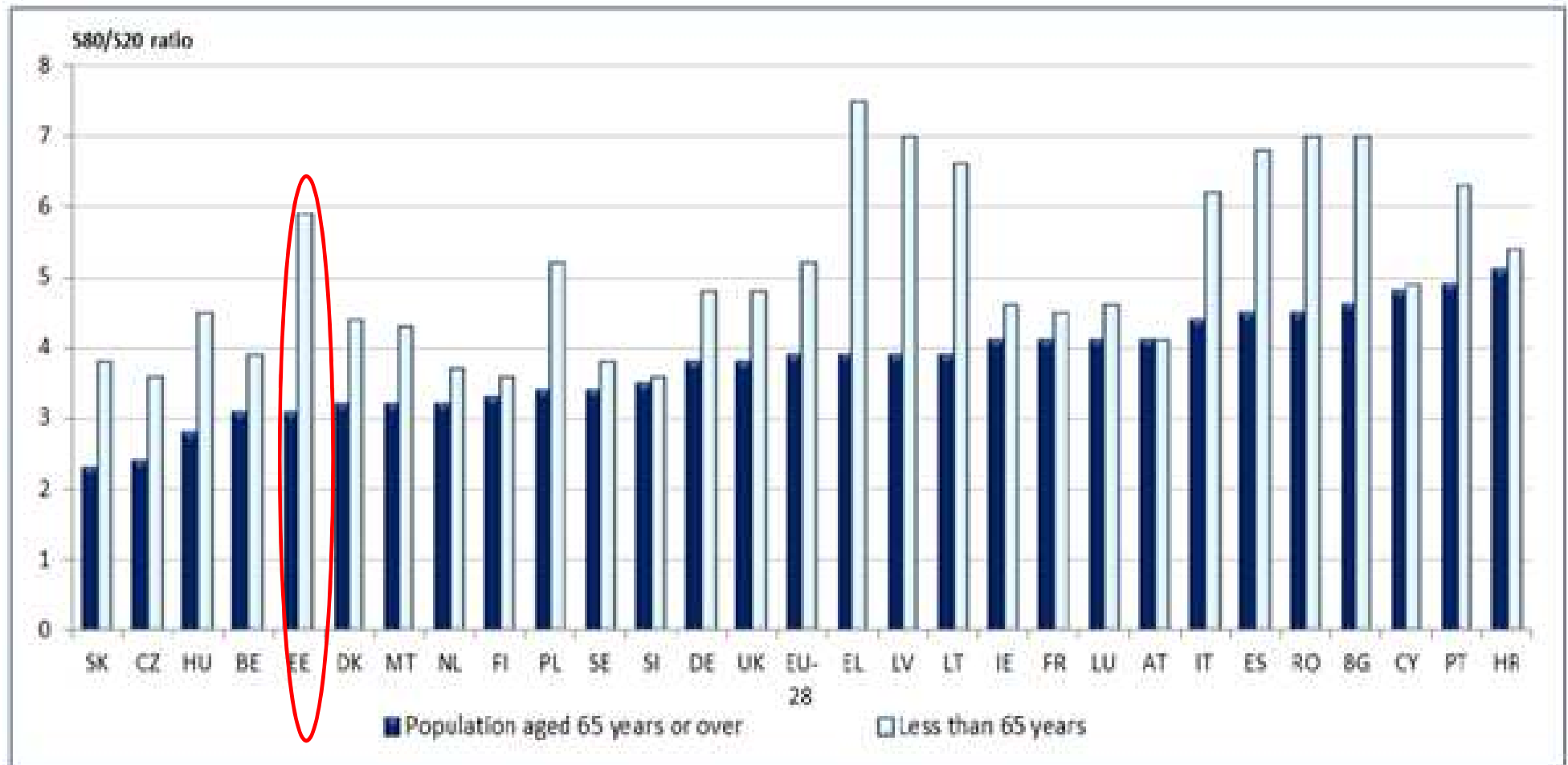


# Ad 3 Empirics - other

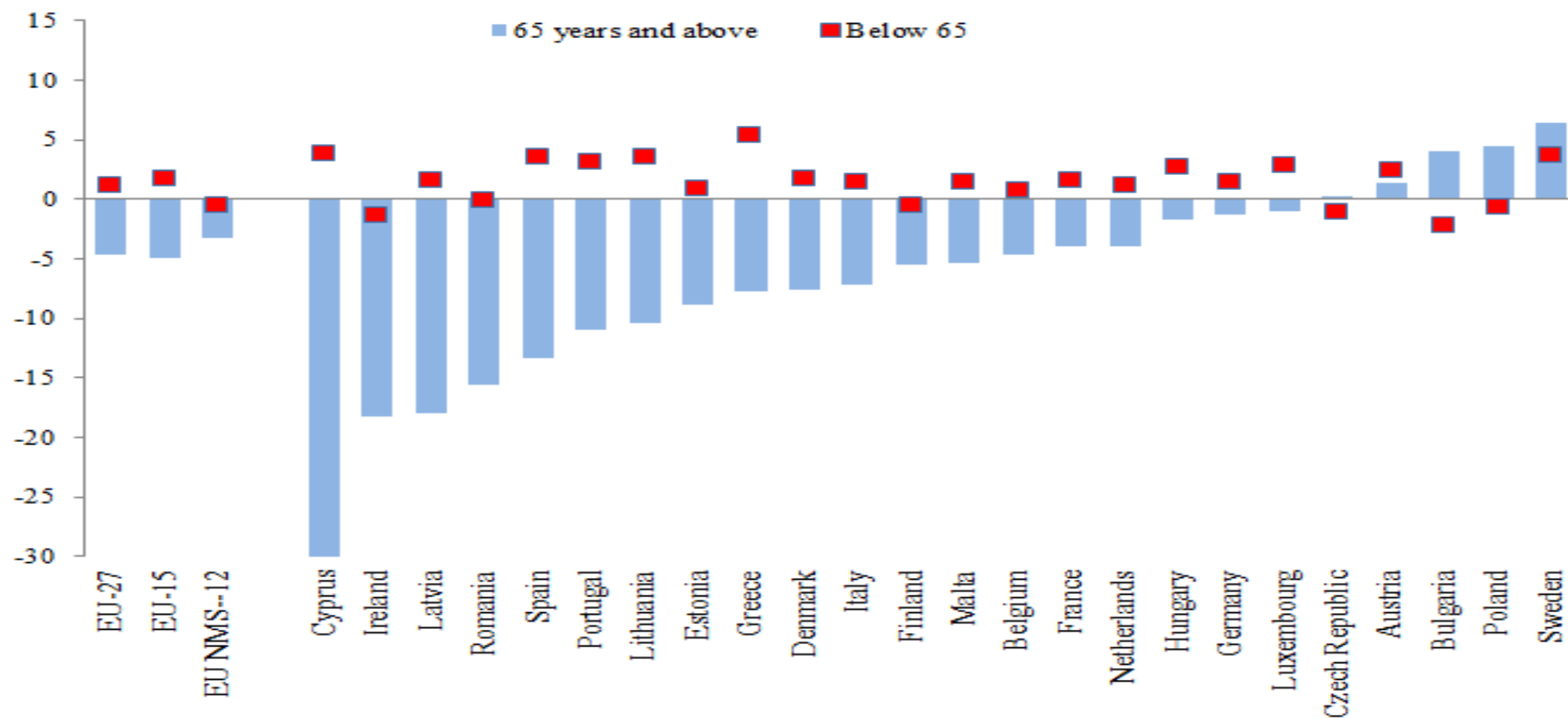
- Mortality tables?
- No woman in this analysis 'to keep the model simple'
  - For singles, the annuitization of pension savings is easy: compute the annuity as from the statutory retirement age associated with the present value of savings.
  - To annuitize pension savings of couples, more assumptions are needed. E.g.: members of a couple are of different age and do not die at the same moment in time.

More on this: Knoef, Been, Alessie, Caminada, Goudswaard & Kalwij (2016), Measuring retirement savings adequacy: developing a multi-pillar approach in the Netherlands, *Journal of Pension Economics and Finance*, 15 (1): 55-89, 2016 (*Netspar Design Paper 25*)

# Ad 3 Is income inequality in Estonia that low?



# Ad 3 Effect crisis: At risk of poverty shifted from 65+ to 65- in Europe, change 2007-2013



# Summing-up

1. Topic / relevance: +++++
2. Description system and reform Estonia: +++
3. Empirics: ??
4. Policy conclusion: ??

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