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Four Levels of Intergenerational Indicators

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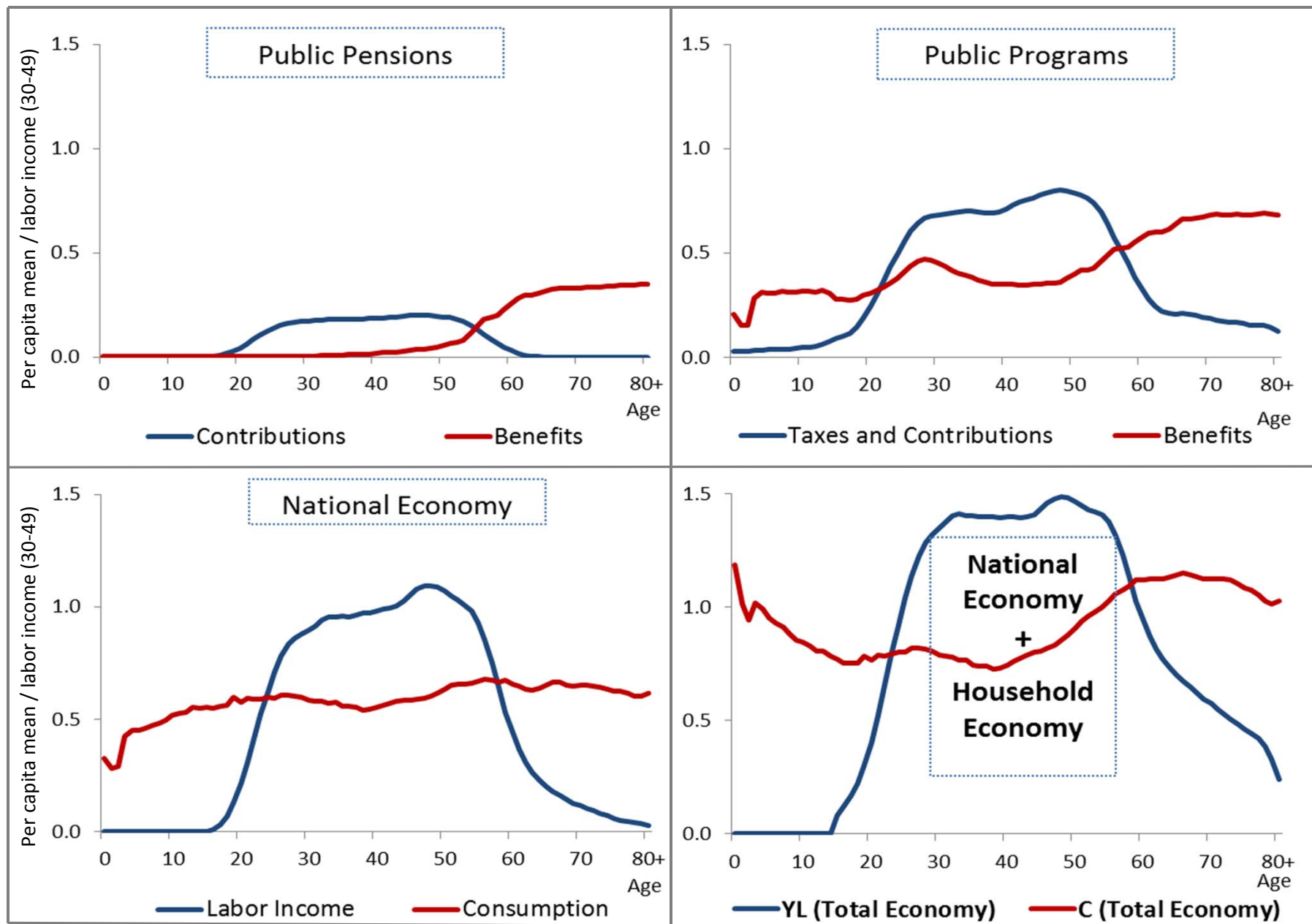
NTA10 - Tenth Meeting of Working Group on
Macroeconomic Aspects of Intergenerational Transfer,
Beijing, 13 November, 2014



The four levels

- Different flows of intergenerational transfers representing different systems of reallocation
- 1. Public Pension System
- 2. Public Programs
- 3. National Economy
- **4. Total Economy = National Economy + Household Economy**

Four levels of intergenerational reallocations

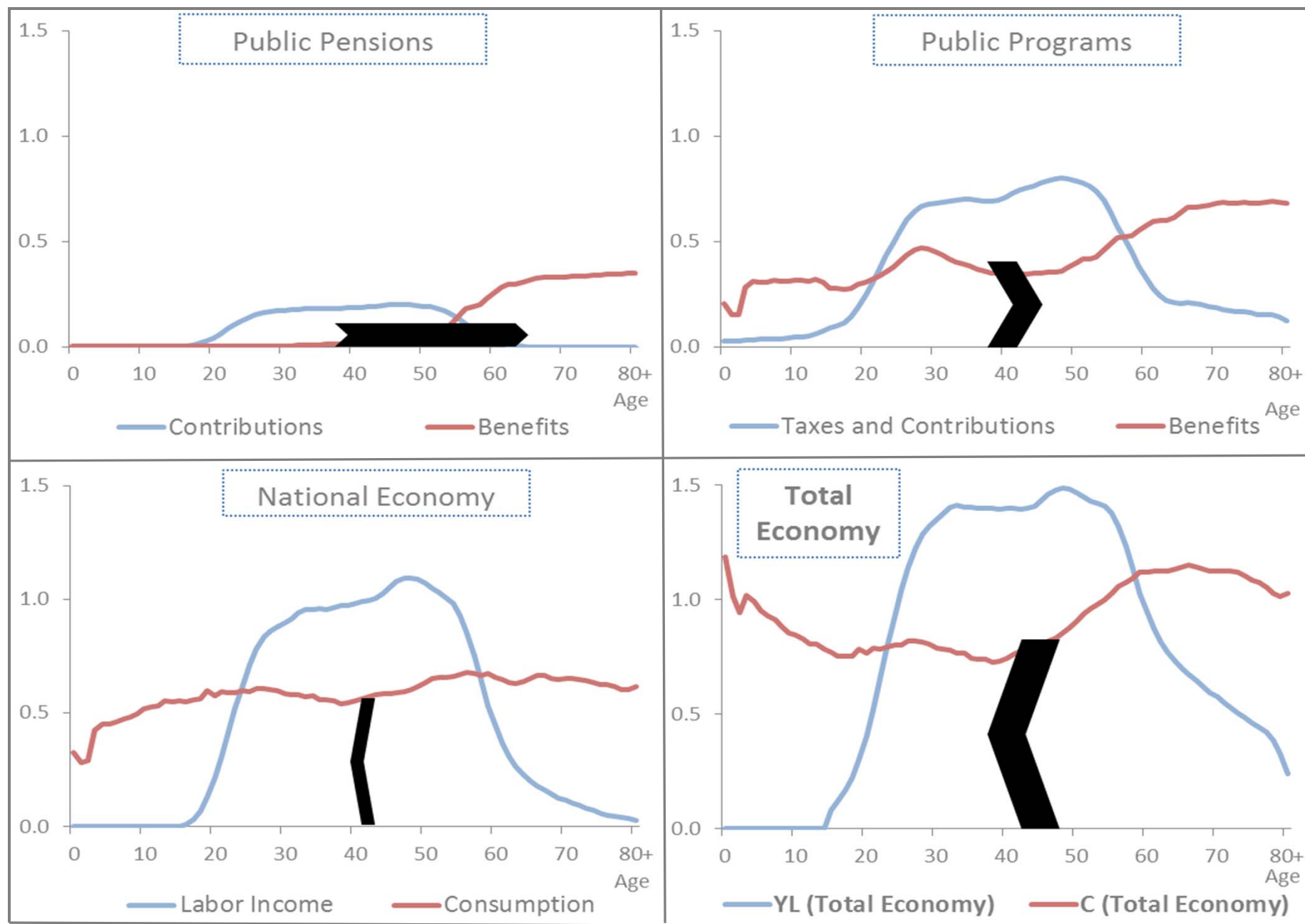


Age profiles from Hungary, 2000. Source: Authors' calculations

The indicators

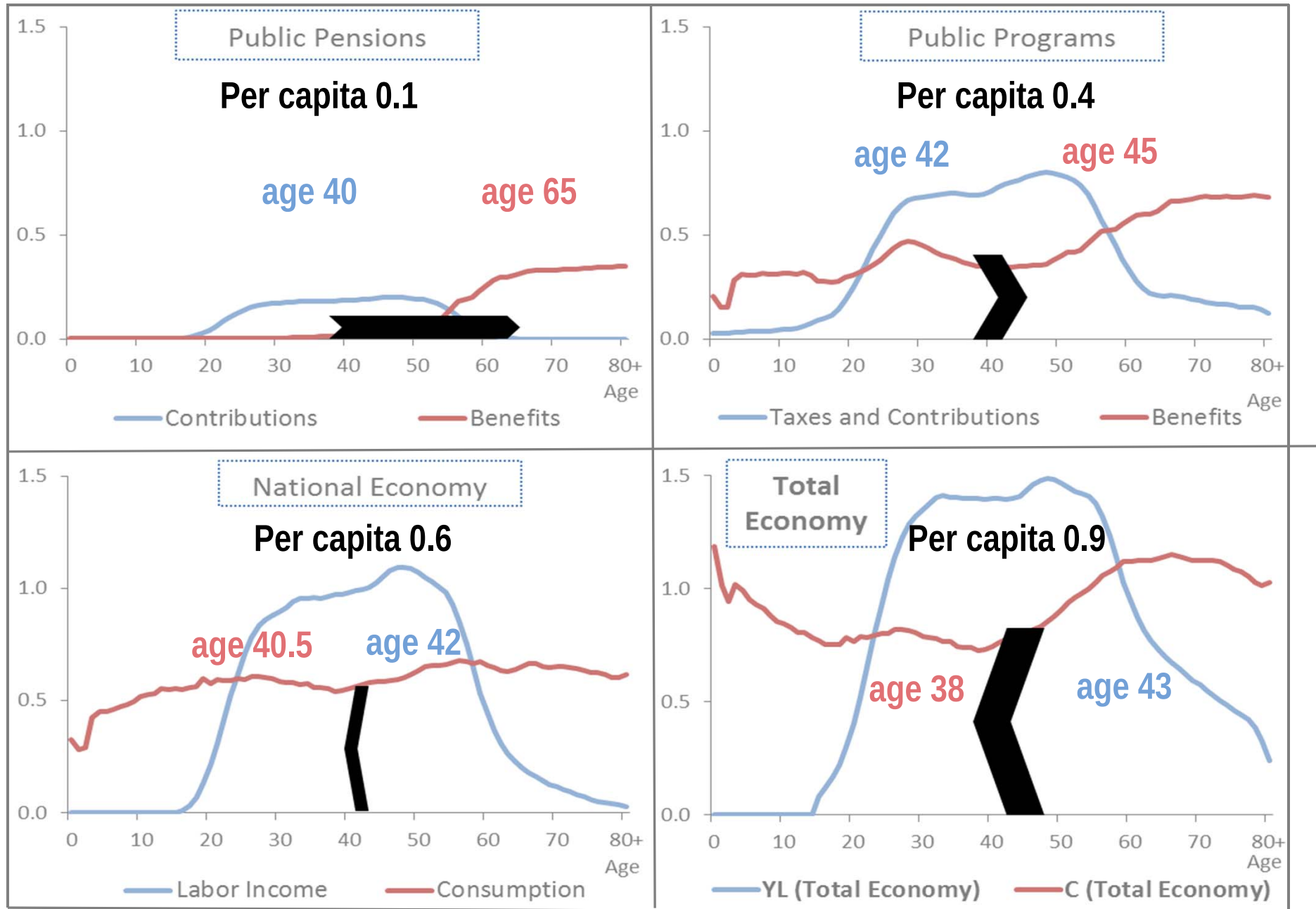
- Lee arrows
- Indicators of the generational asymmetry of transfers (comparing flows towards children and the elderly)
- Support ratios

Lee-arrows on four levels



Hungary, 2000. Source: Authors' calculations

Lee-arrows on four levels

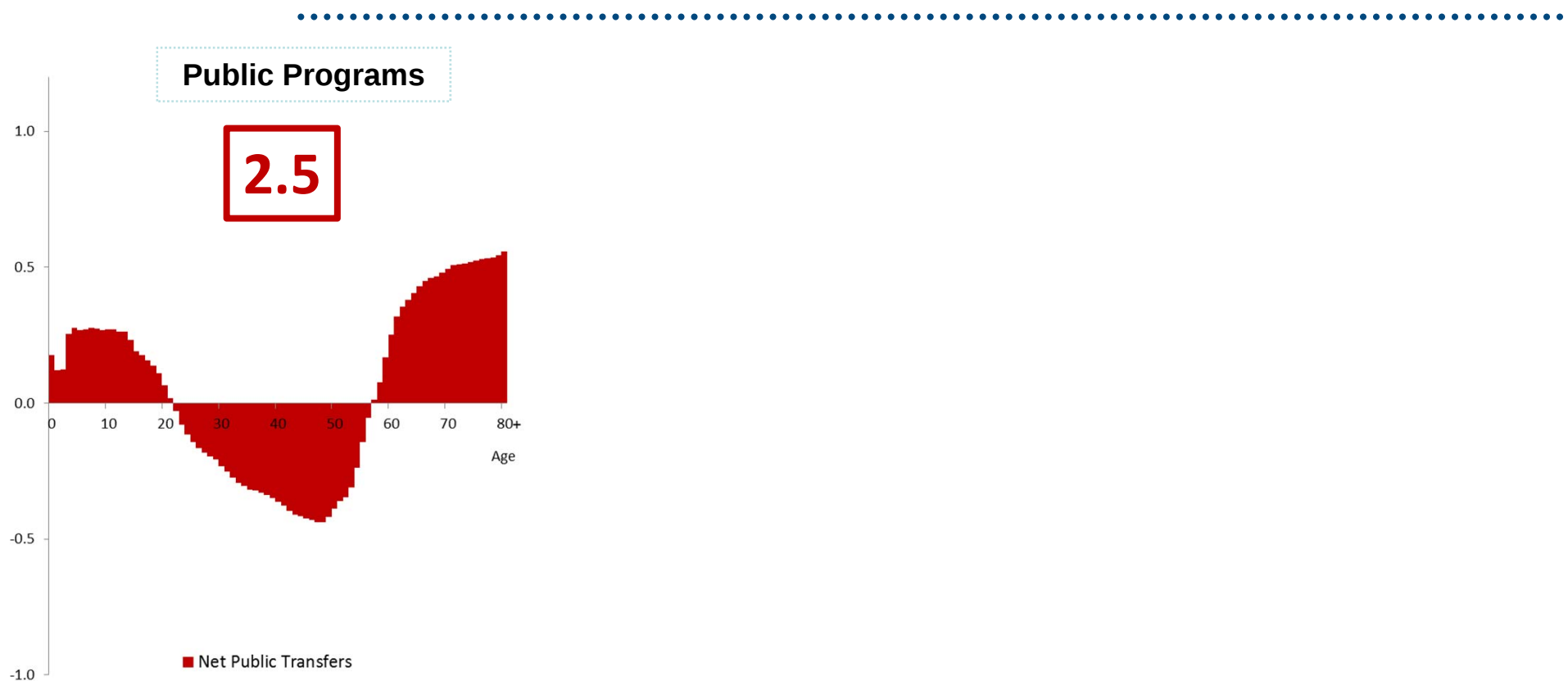


Hungary, 2000. Source: Authors' calculations

The generational asymmetry of transfers

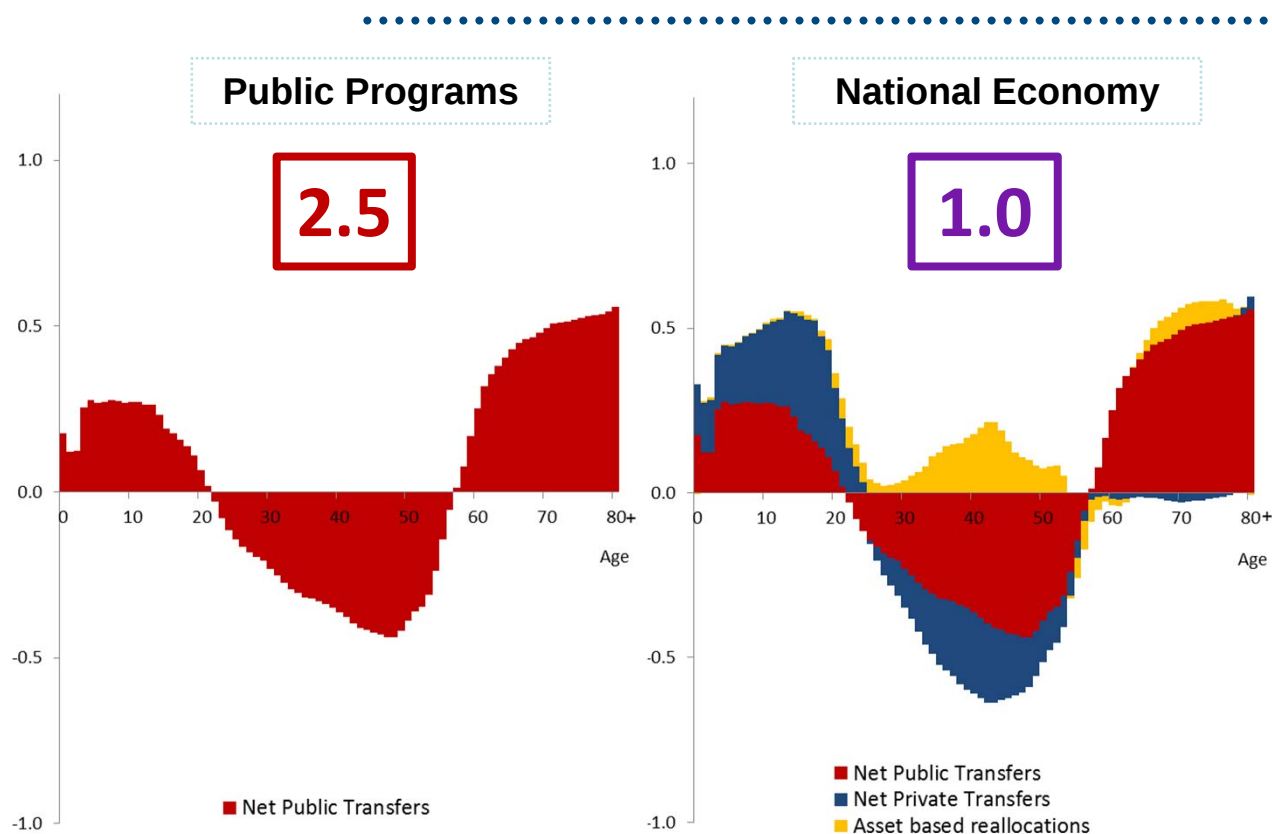
- Compare net flows toward the two dependent periods of the lifecycle on the four levels
- Elderly Bias of Social Spending (Vanhuyse, 2013)
- Per capita average for old age (58+) divided by per capita average for children (0–23)
- The definition of old age and children is given by the LCD curve

Indicator of public programs (per capita)



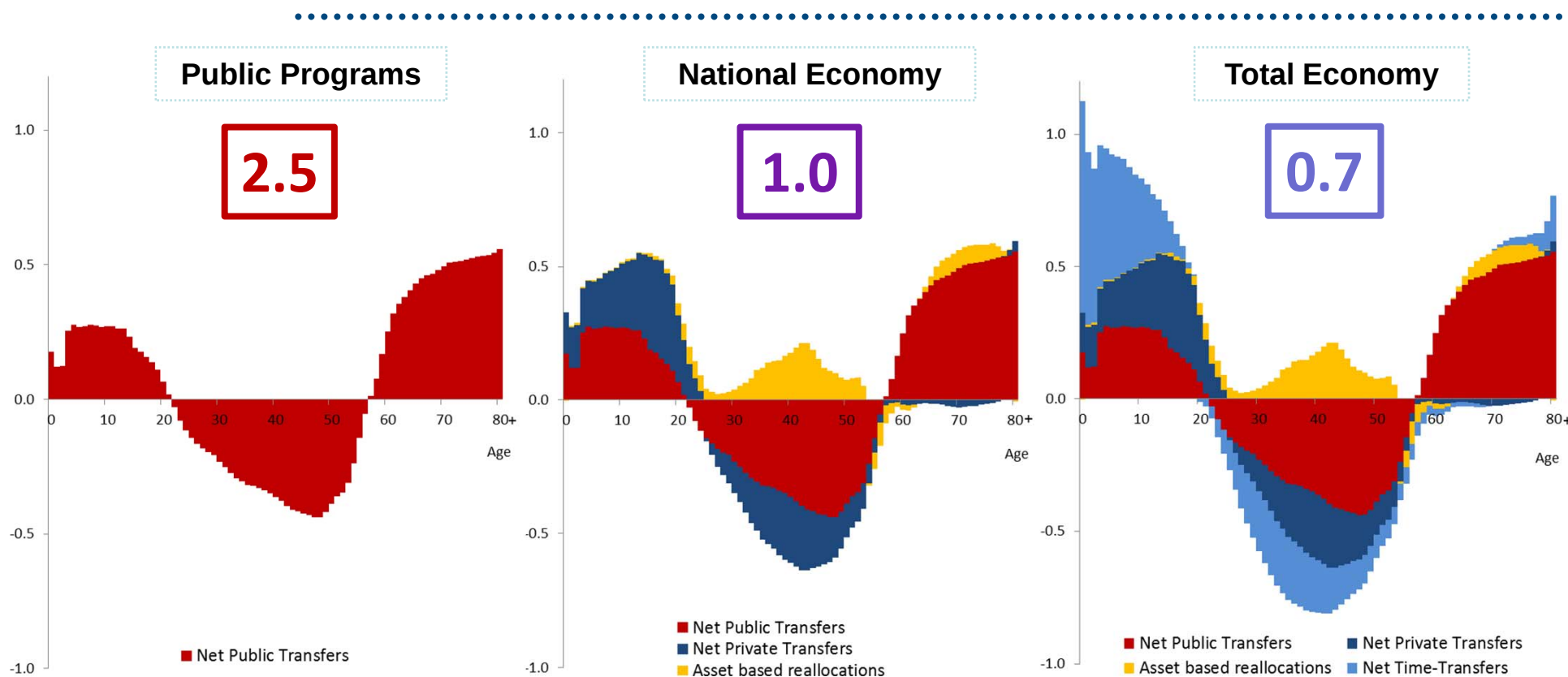
Hungary, 2000. Source: Authors' calculations

Same indicators at the level of national economy



Hungary, 2000. Source: Authors' calculations

Elderly bias in inter-age transfers?

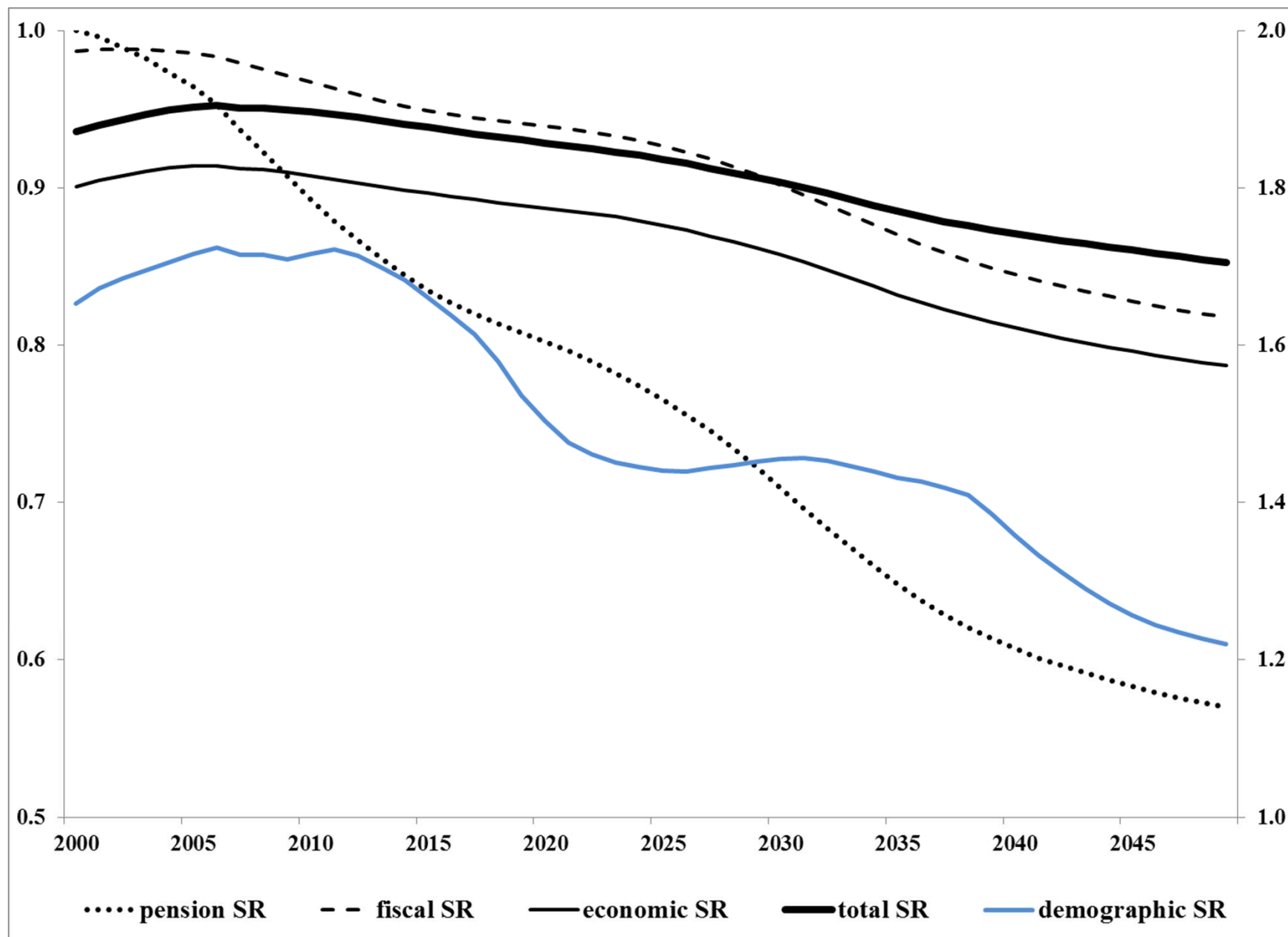


Hungary, 2000. Source: Authors' calculations

Support ratios on four different levels

- Indicators incorporate age variation in productivity and consumption needs
- National economy: **Economic SR**
 - Weighted number of workers / consumers
(Cutler et al. 1990, Lee & Mason 2011, Prskawetz & Sambt 2014, Lee & Mason et al. 2014)
- Public Programs: **Fiscal SR**
 - Weighted number of taxpayers / beneficiaries (Miller 2011)
- Pension System: **Pension SR**
 - Weighted number of pension contributors / pensioners
- Total Economy: **Total SR**
 - Weighted number of workers (incl. the value of unpaid household labor) / weighted number of consumers (incl. the consumption of unpaid household labor)

Projected SRs and the demographic SR



Source: Authors' own calculation

Summary of results

- The level of an economic intergenerational indicator matters
- Once the value of unpaid household labor and consumption is incorporated into the reallocation system
 - elderly bias in inter-age transfers disappears
 - asymmetry of inter-age transfers is more pronounced
 - effects of aging become less dramatic



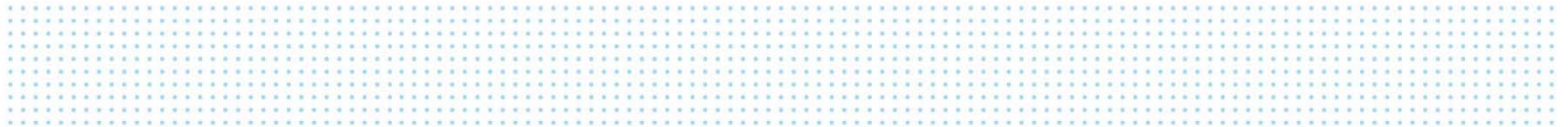
Thank you!



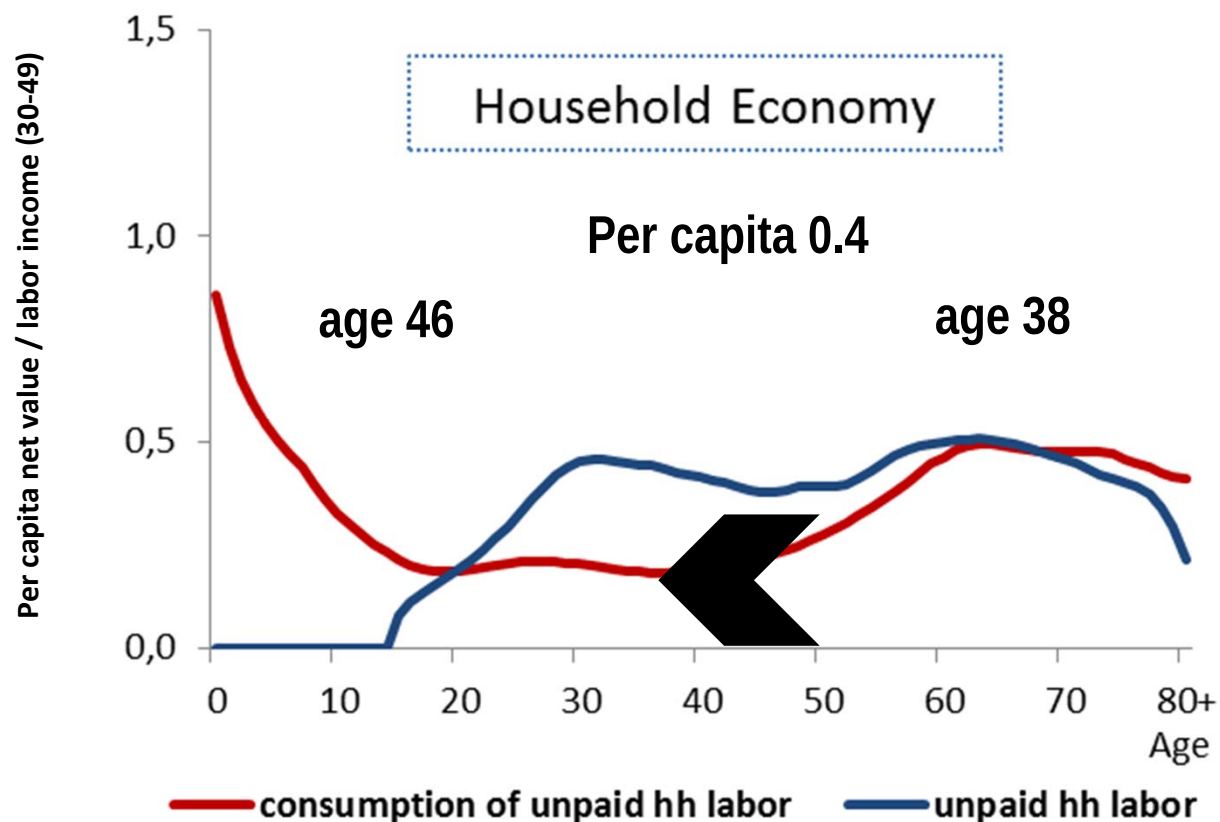
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Age profile and Lee arrow of household economy

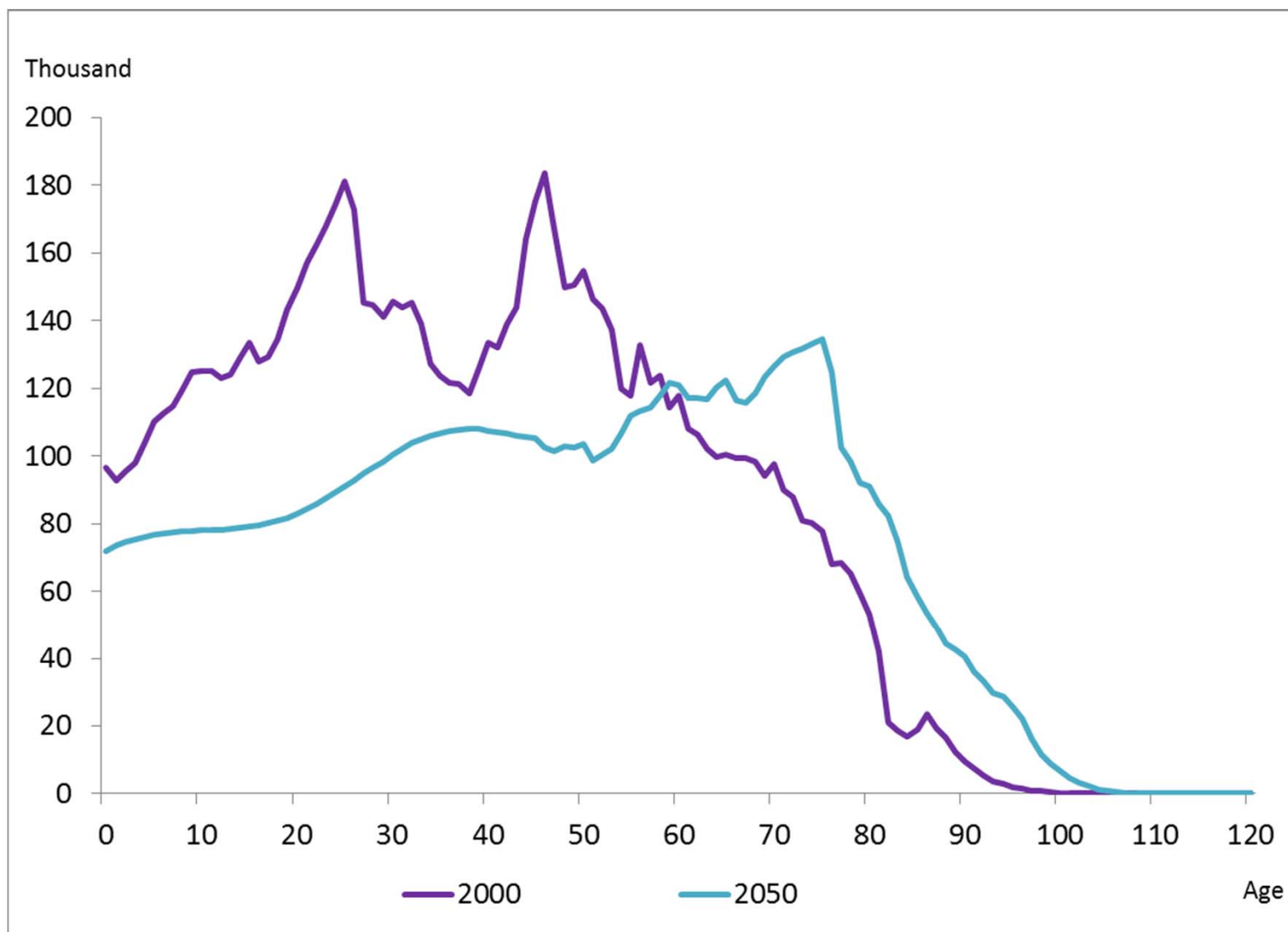


Indicators of inter-generational asymmetry

	Per capita normalized	Aggregate value / GDP
TG old age (Net public transfers 58+)	0.43	0.10
TG children (Net public transfers 0-23)	0.17	0.05
TG indicator	2.51	1.94
TG+TF old age (Net public and private transfers 58+)	0.42	0.10
TG+TF children (Net public and private transfers 0-23)	0.40	0.12
TG+TF indicator	1.04	0.80
TG+TF+TIME old age (Net public, private transfers and time transfers 58+)	0.45	0.11
TG+TF+TIME children (Net public, private transfers and time transfers 0-23)	0.66	0.20
TG+TF+TF indicator	0.68	0.52

Hungary, 2000. Source: Authors' calculations

Projections: The Hungarian population in 2000 and projection for 2050



Source: HDRI