

Financing the economic life cycle

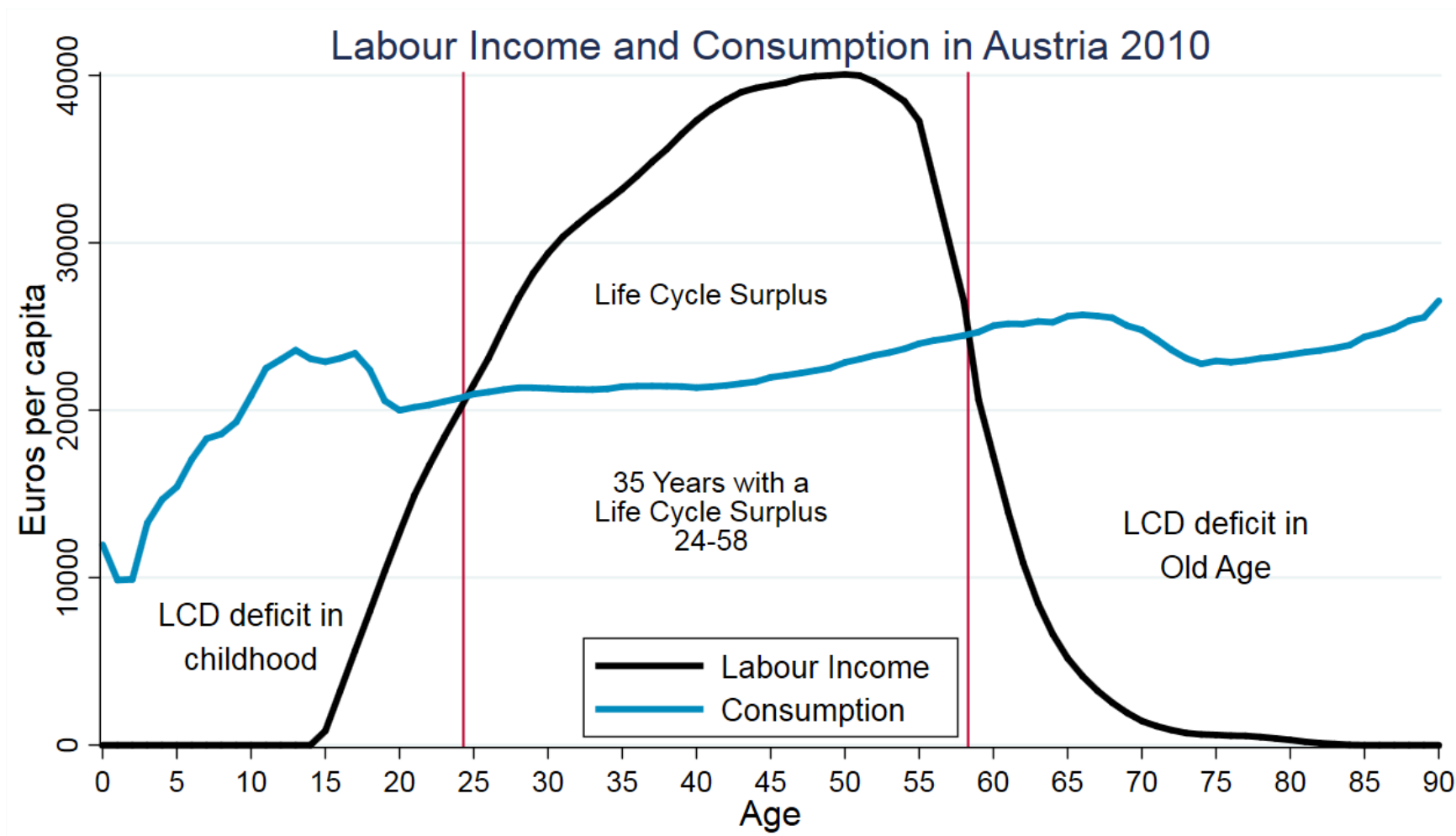
Actuarial Association of Europe
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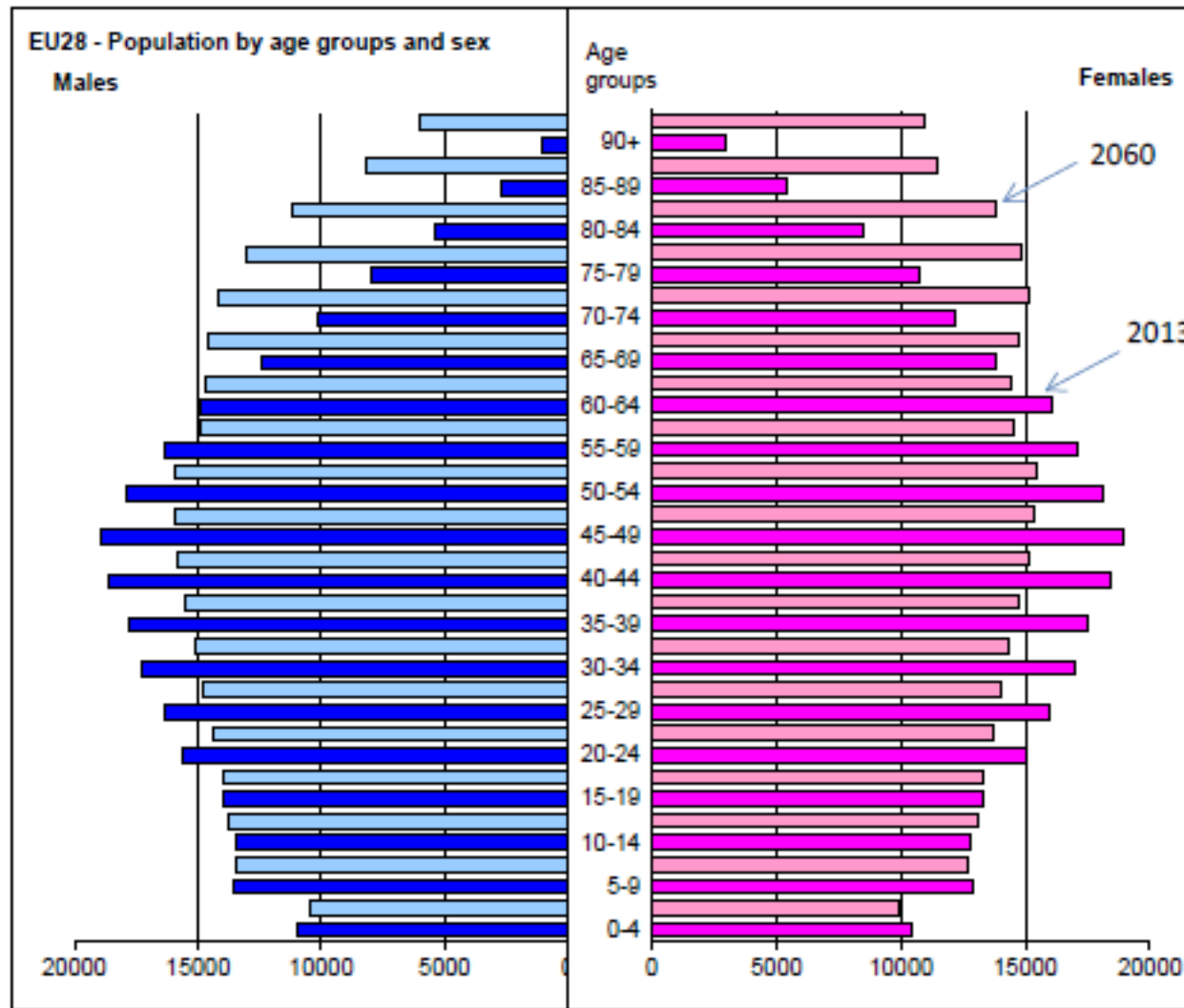
Motivation

Life Cycle Deficit: Consumption and Labour income, Austria 2010



Demographic Structure

Europe is ageing



2013 2060

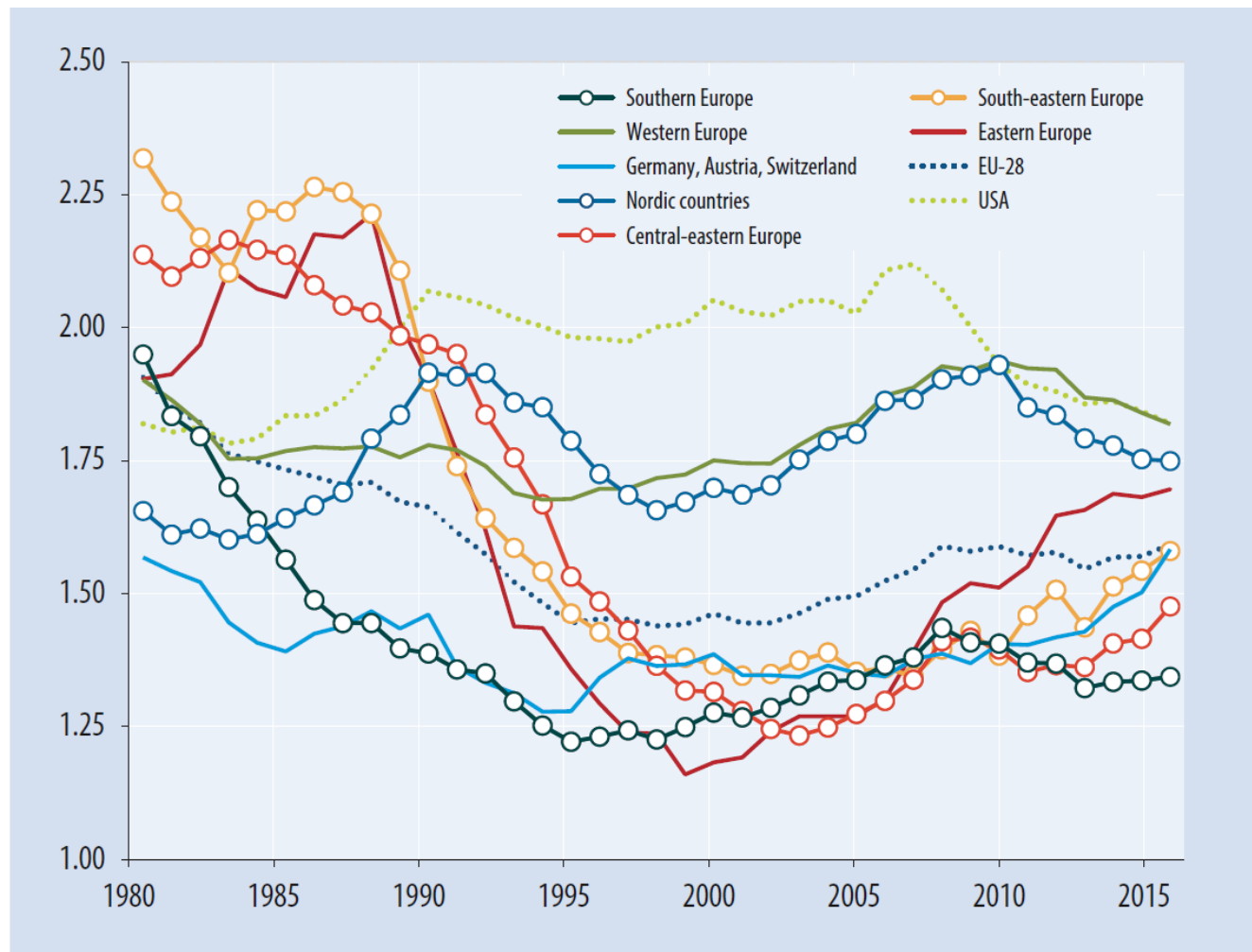
15-64: 66% → 57%

65+: 18% → 28%

80+: 5% → 12%

Fertility

Different timing and extent of fertility reduction across Europe



Total fertility rate in European regions and in the United States, 1980–2016

Source: European Demographic Data Sheet 2018

https://www.oecw.ac.at/fileadmin/subsites/Institute/VID/PDF/Publications/Datasheet/DS2018/VID_DataSheet2018.pdf

Life expectancy

Life expectancy at birth

	Male	Female
EU 1960	66.9	72.3
EU 2012	76.1	82.2
	+ 9.2	+ 9.9

pronounced mortality differentials across Europe

2013	68.7 (LT)	78.0 (BG)
	80.1 (SE)	85.2 (ES)

EU 2013 – 2060

+ 7.2 + 6.0

Austrian mortality and fertility pattern

Increase in **life expectancy at birth**:

male: 62,4 (1951) → 79,14 (2016) → 87,3 (2060)

female: 67,75 (1951) → 83,95 (2016) → 90,6 (2060)

Reduction in **fertility rate** (TFR):

2,82 (1963) → 1,52 (2016) → 1,55 (2060)

National Transfer Accounts

Financing of life cycle deficit

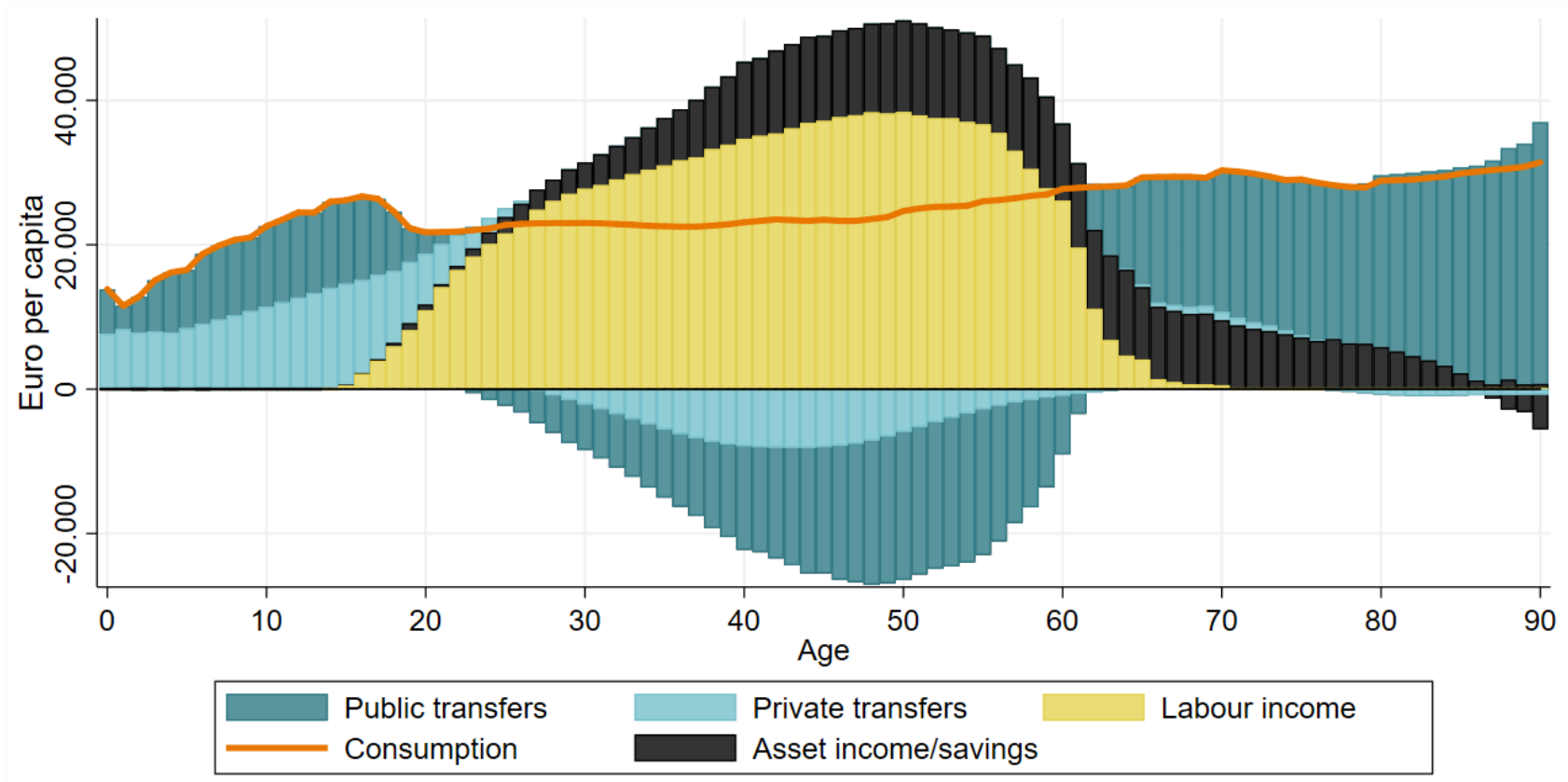
life cycle deficit can be financed through:

- a) **public transfers** (health, pensions, education, ...)
- b) **private transfers** (parents financing the consumption of children)
- c) **asset-based reallocation** (during working age to receive asset income or to sell the assets later in life)

These flows are mediated by

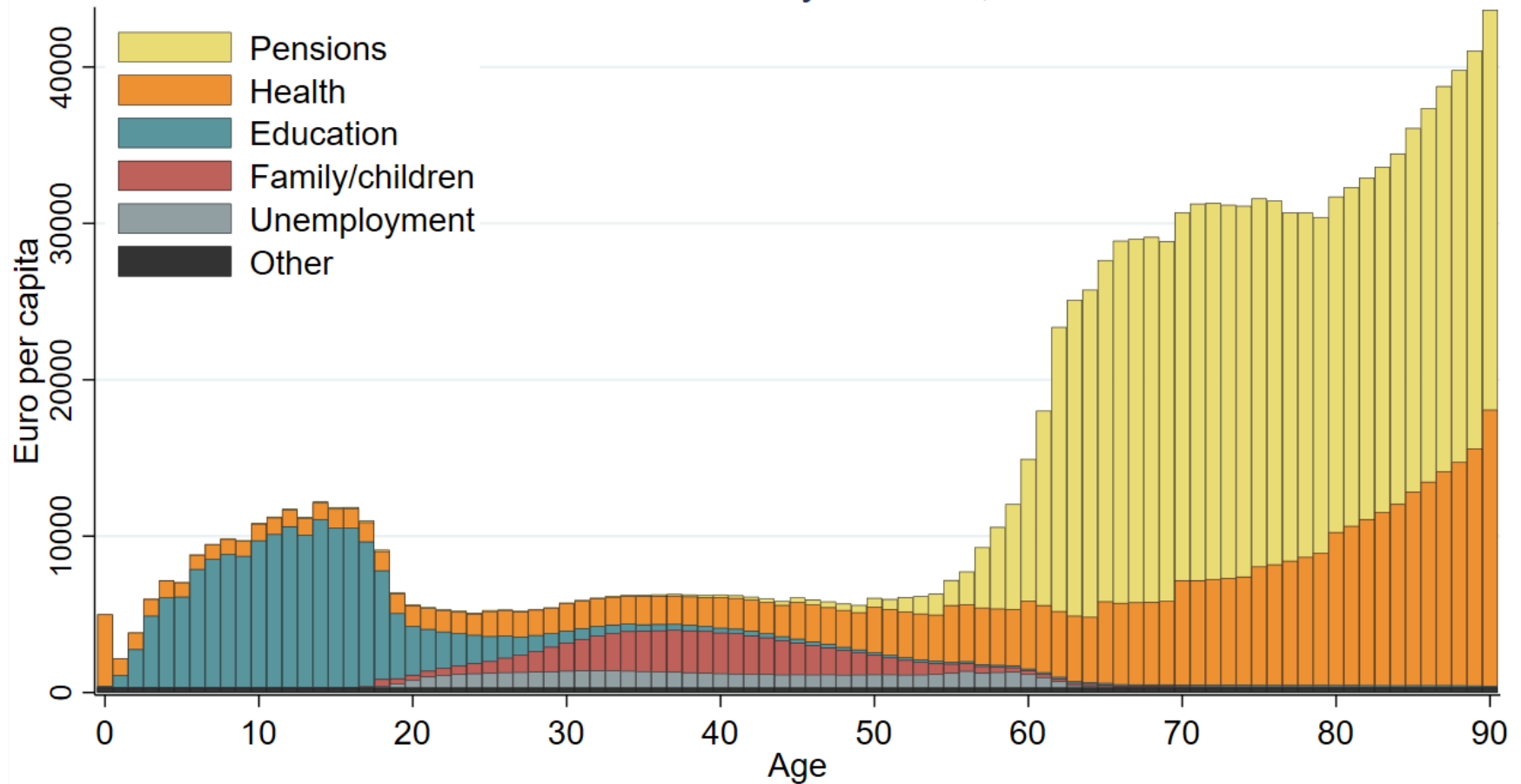
public and private institutions

Financing the life cycle deficit, Austria 2015

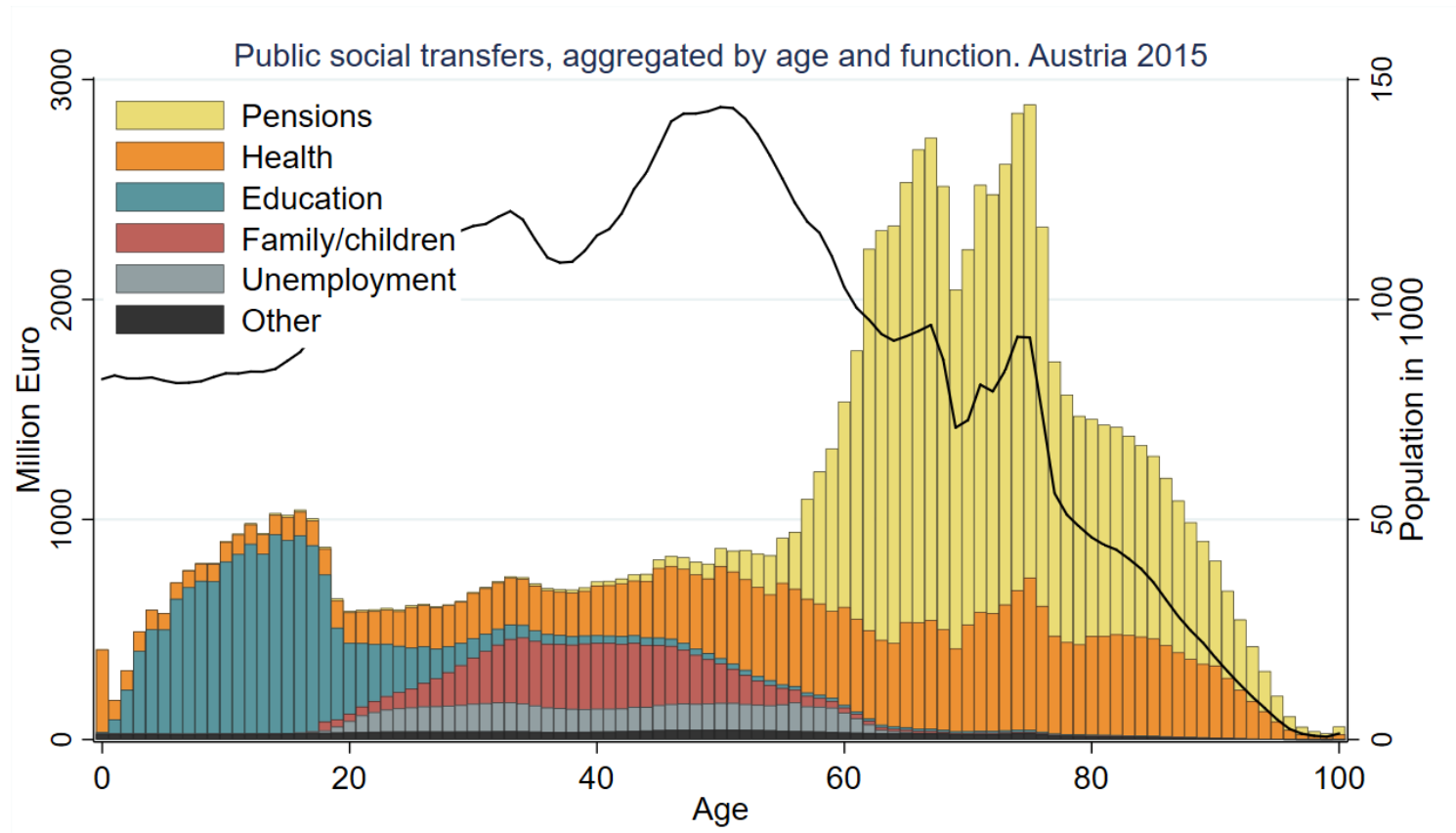


Source: National Transfer Accounts for Austria; own calculations

Public social transfers by function, Austria 2015



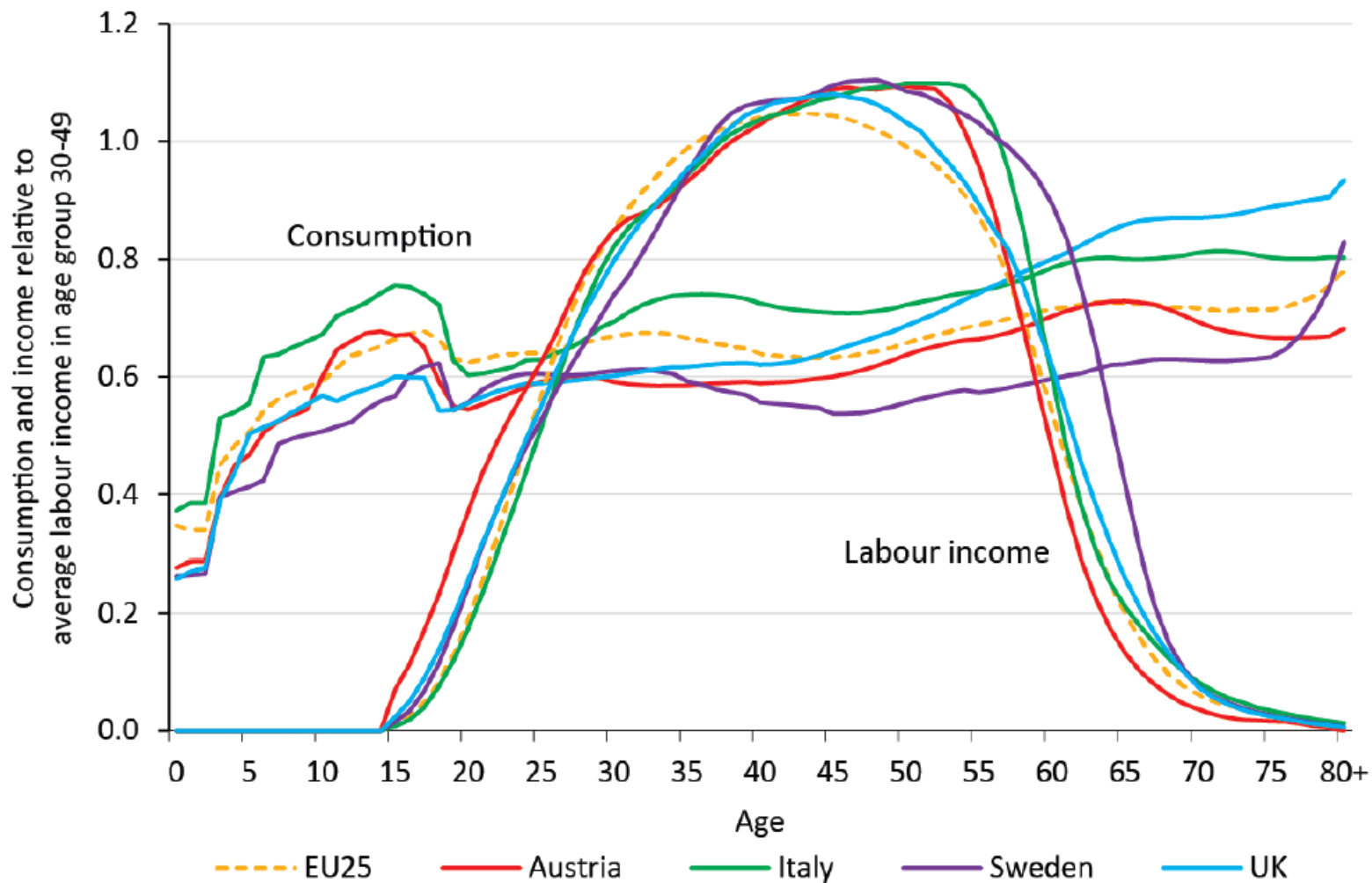
Source: National Transfer Accounts for Austria; own calculations



Source: National Transfer Accounts for Austria; own calculations

Diversity in the Economic Life cycle across countries

Consumption and labour income in EU countries in 2010

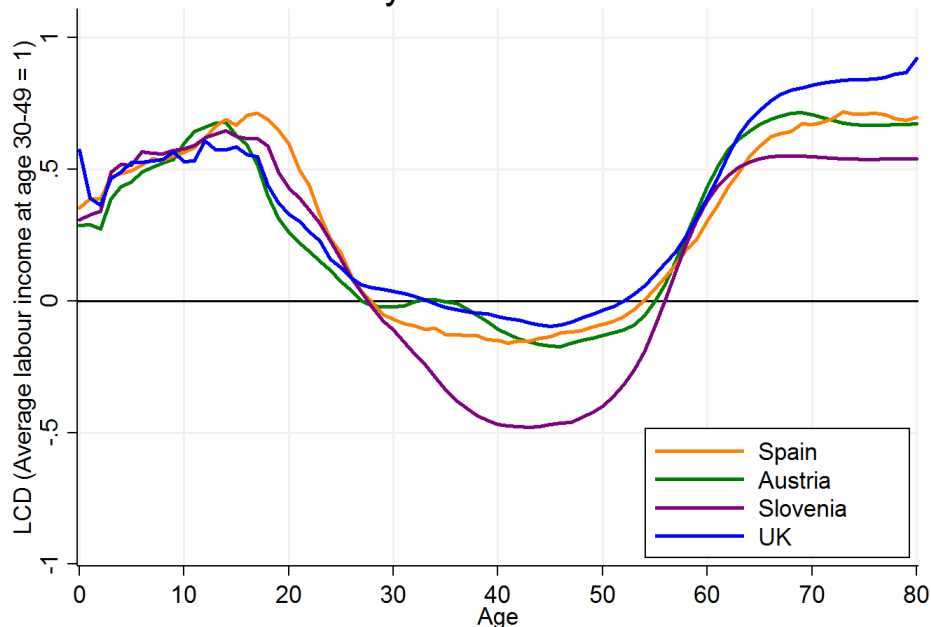


Time transfer pattern

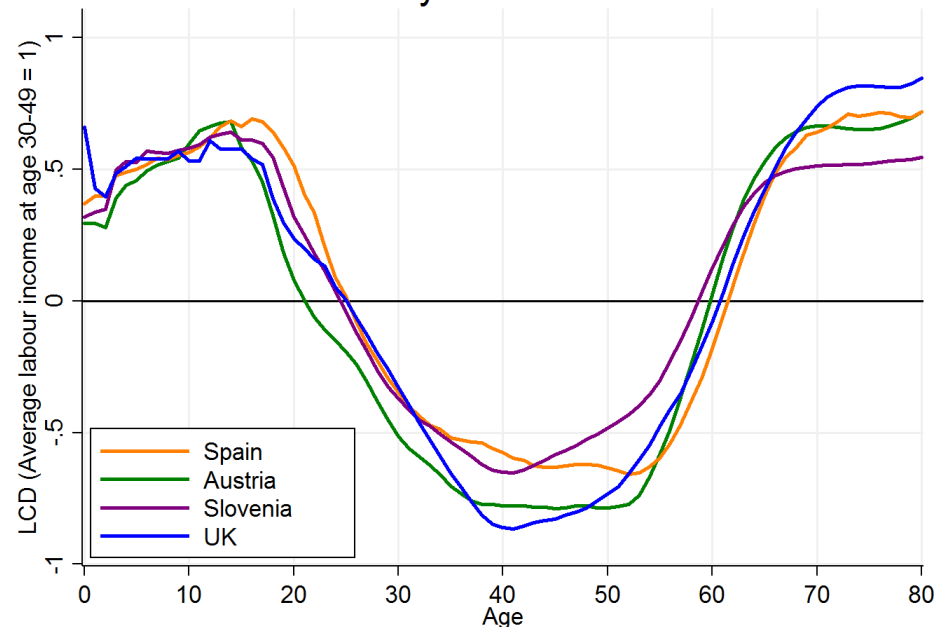
Gender specific NTA

Women generate a lower life cycle surplus compared to men

Life Cycle Deficit Women



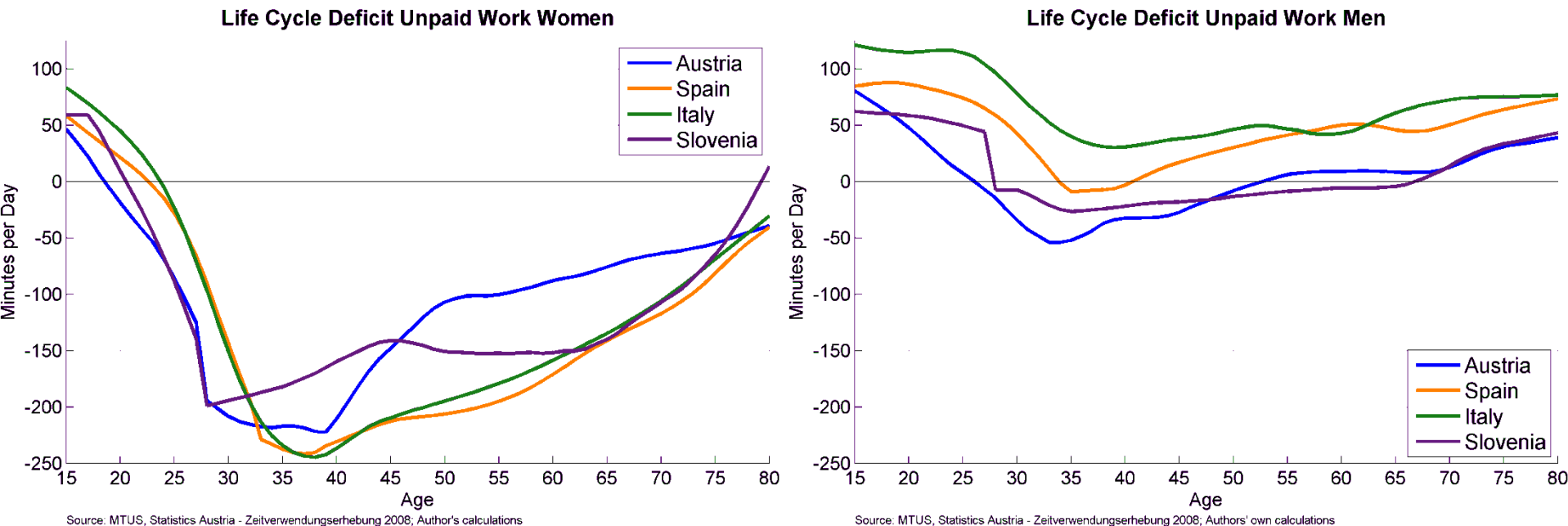
Life Cycle Deficit Men



Are **males** supporting the life cycle deficit of females ?

Adding non market work- time transfer accounts

Women produce more than they consume through unpaid work (with the exception of the young age groups)

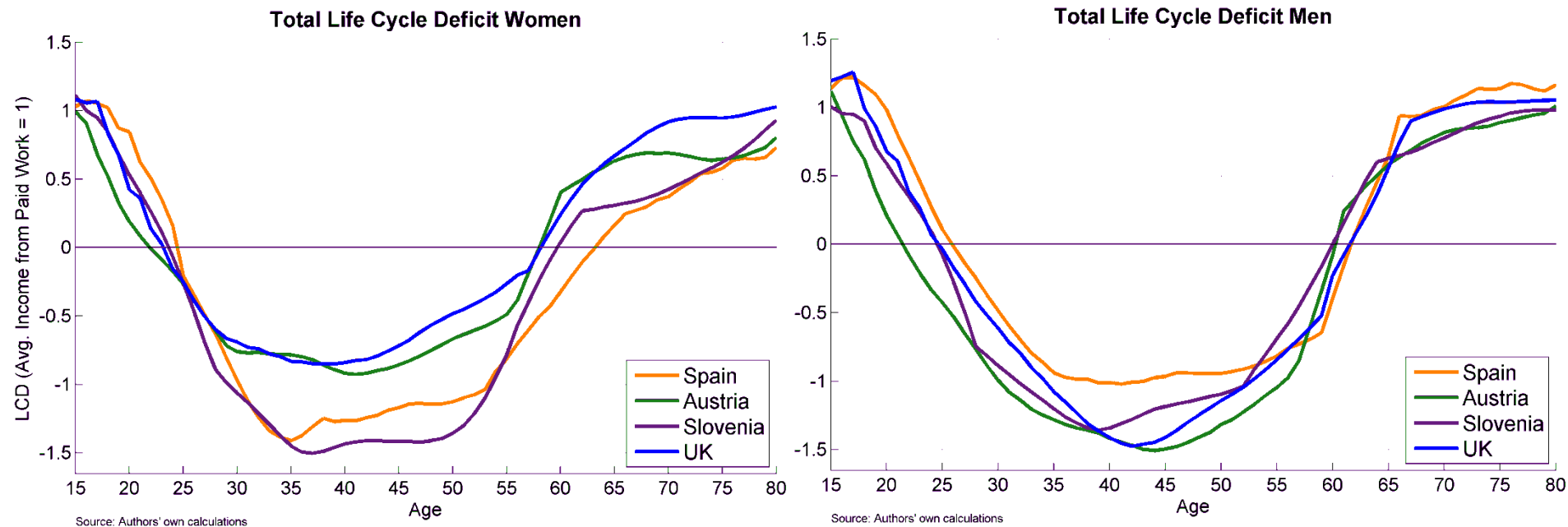


The life cycle deficit for **men** is higher and it is always positive in case of Italy.

Source: Hammer, B., Prskawetz, A., & Freund, I. (2013). Reallocation of Resources Across Age in a Comparative European Setting. WWWforEurope Working Paper No. 13. *WIFO Studies*. and Hammer, B., Prskawetz, A., & Freund, I. (2015a). Production activities and economic dependency by age and gender in Europe: A cross-country comparison. *The Journal of the Economics of Ageing*, 5, 86-97.

NTTA by gender

Compared to NTA, **gender differences** in total LCD (NTA and NTTA) are similar



Source: Hammer, B., Prskawetz, A., & Freund, I. (2013). Reallocation of Resources Across Age in a Comparative European Setting. WWWforEurope Working Paper No. 13. *WIFO Studies*. and Hammer, B., Prskawetz, A., & Freund, I. (2015a). Production activities and economic dependency by age and gender in Europe: A cross-country comparison. *The Journal of the Economics of Ageing*, 5, 86-97.

Conclusion

Economic dependency determined by:

- demography
- age-specific type and intensity of economic activity
- definition of dependency

Effective ways to decrease economic dependency

- use of labour force potential in working age (including increase in retirement age)
- investment in human capital as the source of future benefits!
- use of assets for old age provision

How dependency rates are defined plays a crucial role in how we measure and think about the dependency.

Challenge for ECONOMICS

- To cope with **population ageing** we need to manage/understand the opportunities of **individual ageing**.
- We need a **better understanding of individual behavior** (savings, labour force participation, etc.) as **life expectancy increases**, **macroeconomic settings change** and given various **institutional settings of social policies**.

“ ..., the key conclusion is that the main danger of population ageing is the **lack of adaptation** to a new demographic situation.” *(Börsch-Supan, 2013)*

“Europe and the rest of the developed world will need to promote, more so than the developing world, knowledge-intensive, high value added economic activities that **generate genuine productivity growth**, based on **innovation, capital deepening, better organization and greater investment in education and skills for higher-quality workforce.**” *Fotakis and Peschner (2015)*

Myths: The economic of ageing is about the old *(Börsch-Supan, 2013)*

NO, **health and educational investment** start at young ages

Data Explorer

About NTA 2010 Data NTA Data NTA Variables



European National Transfer Accounts 2010



Countries

EU25 Population Avg. refers to the average individual in the 25 included countries.
EU25 Country Avg. to the average over all countries not weighted by population size.

Austria Italy

Select/deselect all

Central NTA Variables

1. Labour income (YL)

Select/deselect all

Units

Norm

Non-central NTA Variables

For a description of the variables and their abbreviation check the [list of NTA variables](#).

Select additional variables

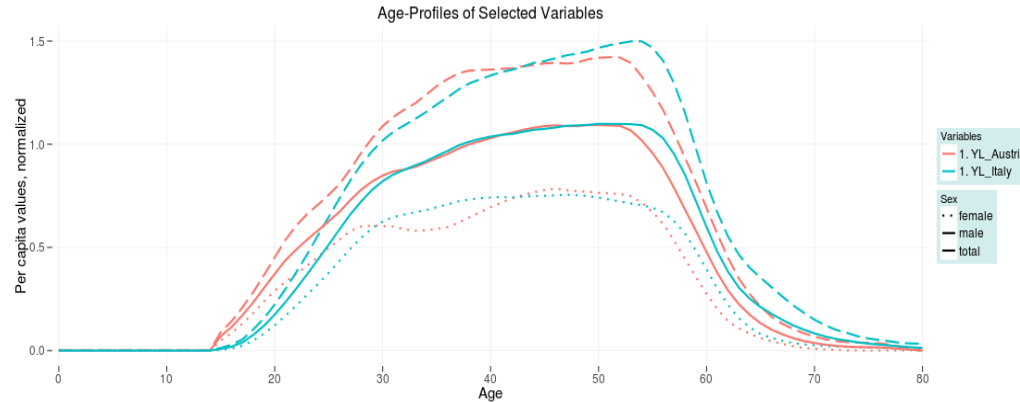
Select/deselect all

Sex

- ☒ Total
- ☒ Men
- ☒ Women

Quick Plot Country Subplots Variable Subplots Download in wide format Download in long format

This plot previews your selection and displays the first 15 of the selected age profiles.



Information and Help

A preliminary version of the [European NTA Manual](#) describes in detail the data sources and methodology. The final manual will be available in November 2017. The [NTA manual](#) of the global NTA project describes the NTA methodology in general.

Citation: We suggest the following citation: Istaitieh, T., Seme, A., Hammer, B., Lotric Dolinar, A., Sambit, J. (2016). European National Transfer Accounts. Available at: <http://www.wittgensteincentre.org/ntadata>.

Many thanks