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Reallocation of Resources Across Age in a Comparative European Setting

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Topic of our paper:

Cross-country comparison of production activities by age and gender using an economic dependency and support ratio

Definition: *Life Cycle Deficit* (LCD) = Consumption minus Labour Income
Life Cycle Surplus (LCS): Negative LCD

Outline:

- 1. The Life Cycle Deficit - Motivation**
- 2. The Life Cycle Deficit / Surplus by Gender**
- 3. The Life Cycle Deficit for Unpaid Work**
- 4. The Total Life Cycle Deficit – Paid and Unpaid Work**
- 5. Conclusions**

National Transfer Accounts: Introducing age into the System of National Accounts

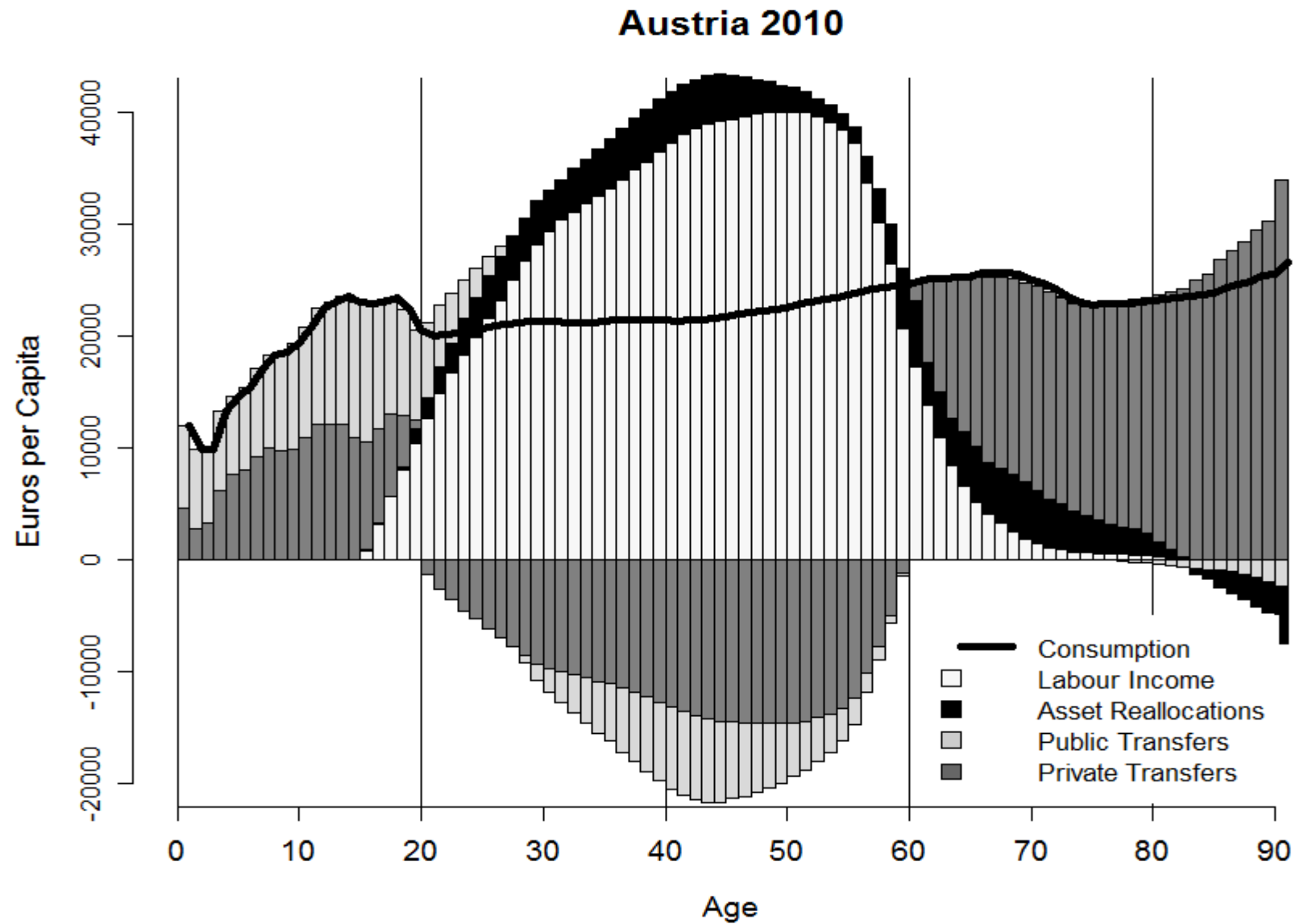
National Transfer Accounts (NTA) measure:

- the generation of labour and asset income by age
- the subsequent redistribution of income among age-groups
- how each age group uses the disposable income for consumption and saving

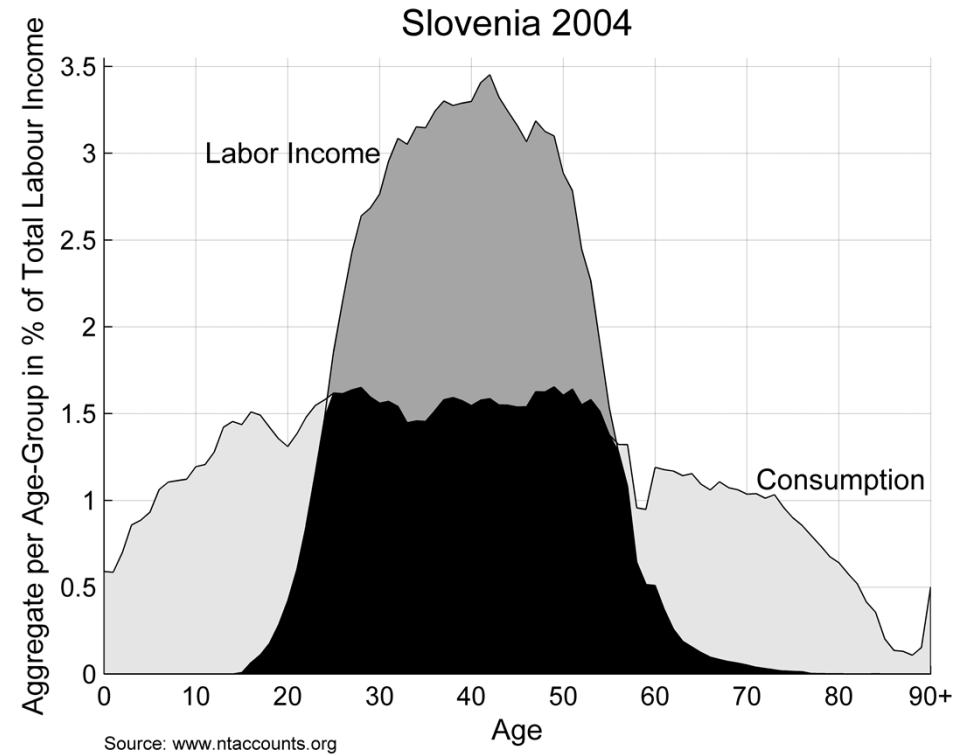
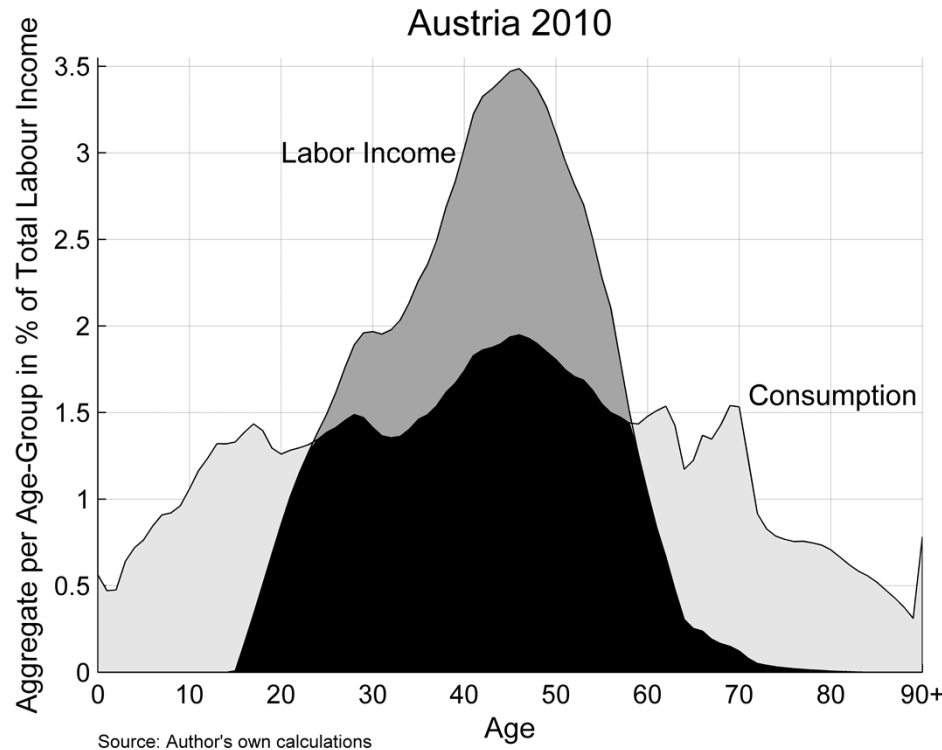
The NTA dataset consists of age-profiles containing the per capita averages for each age-group of

- labour income
- asset income
- public and private transfers
- consumption
- savings.

Income, Transfers and Consumption by Age



The Aggregate Life Cycle Deficit



The Aggregate Life Cycle Deficit / Surplus is influenced by:

- Age structure of the population
- Level of consumption relative to labour income
- Shape of per capita consumption and labour income age profiles

The Aggregate Life Cycle Deficit

Country	LCD Young	LCS Working Age	LCD Old
Austria	19	32	25
Finland	25	29	24
France	30	32	24
Germany	19	32	31
Hungary	22	32	28
Italy	25	24	32
Slovenia	23	40	24
Spain	22	28	22
Sweden	25	39	23
UK	27	23	26

Main Questions:

1. What is the effect of the shape and the level of consumption and labour income age profiles? (-> application of a standard population)
2. Can an analysis by gender explain cross-country differences?

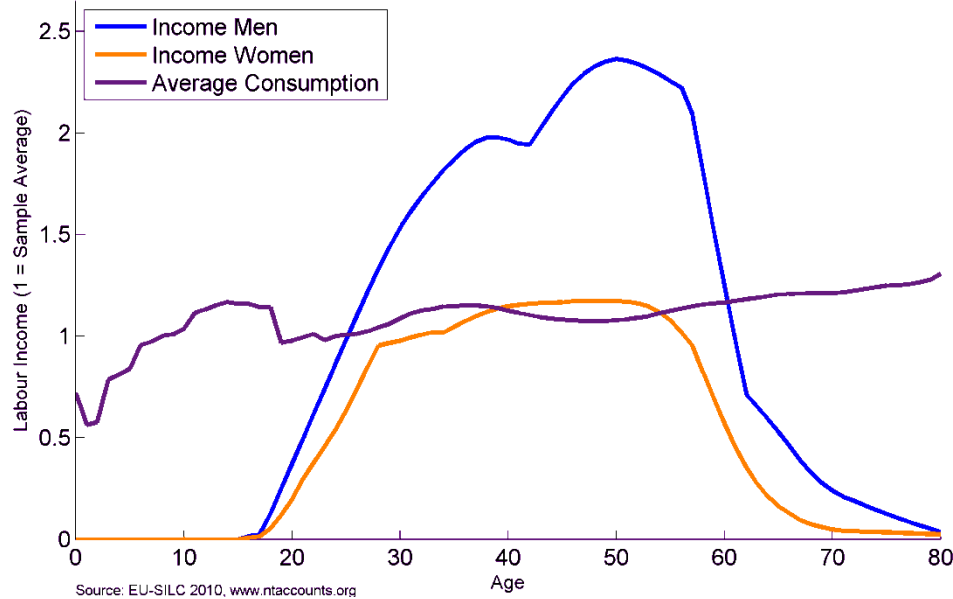
1. The Life Cycle Deficit/Surplus for Paid Work

Data:

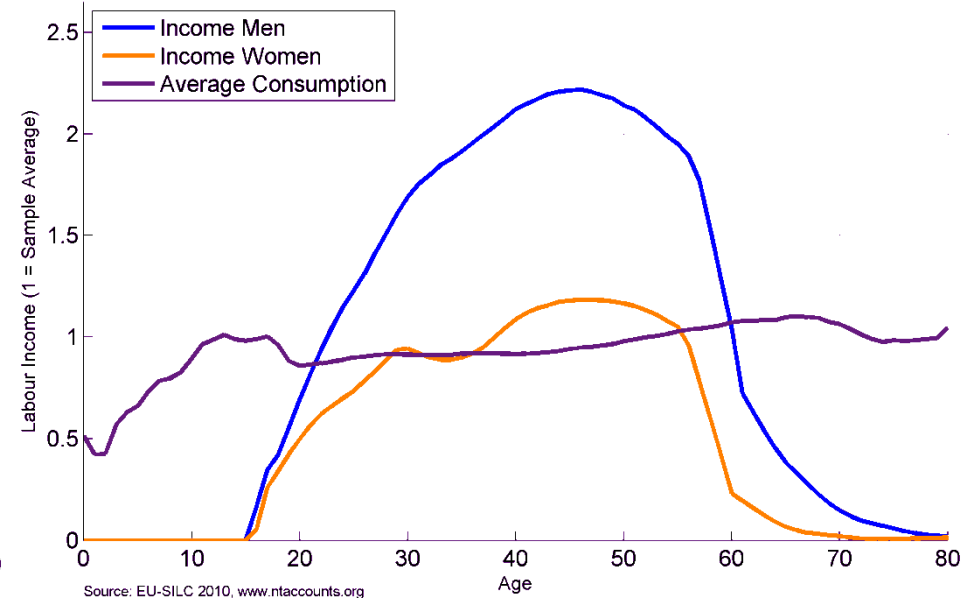
- **Labour income** by age: European Survey of Income and Living Conditions (EU-SILC) 2010
- **Consumption** by age: National Transfer Accounts (NTA) project (-> not gender-specific)
- **Aggregates (ratio of consumption to labour income):** System of National Accounts (SNA) 2010

Labour Income and Consumption by Age and Sex

Labour Income and Consumption by Age and Sex: Italy

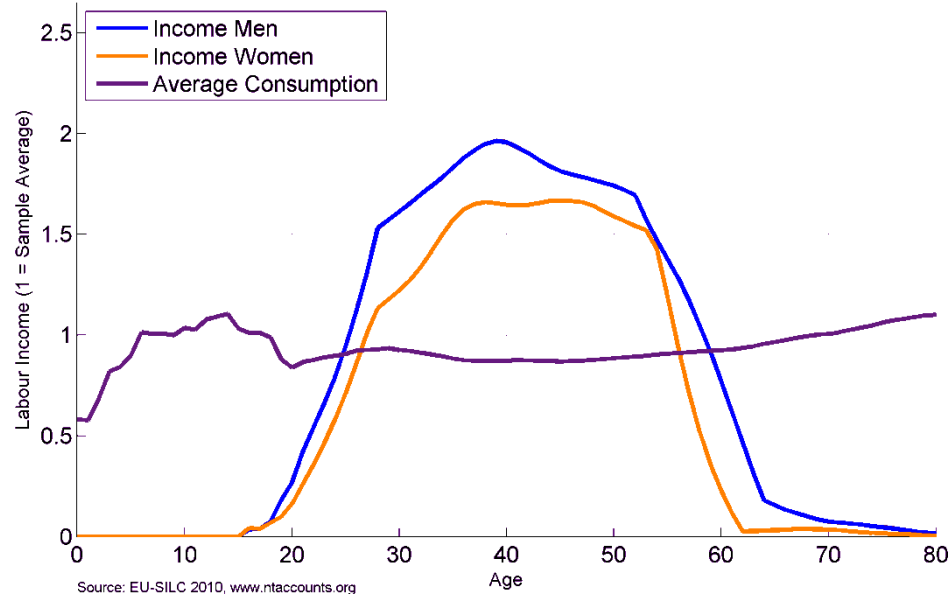


Labour Income and Consumption by Age and Sex: Austria

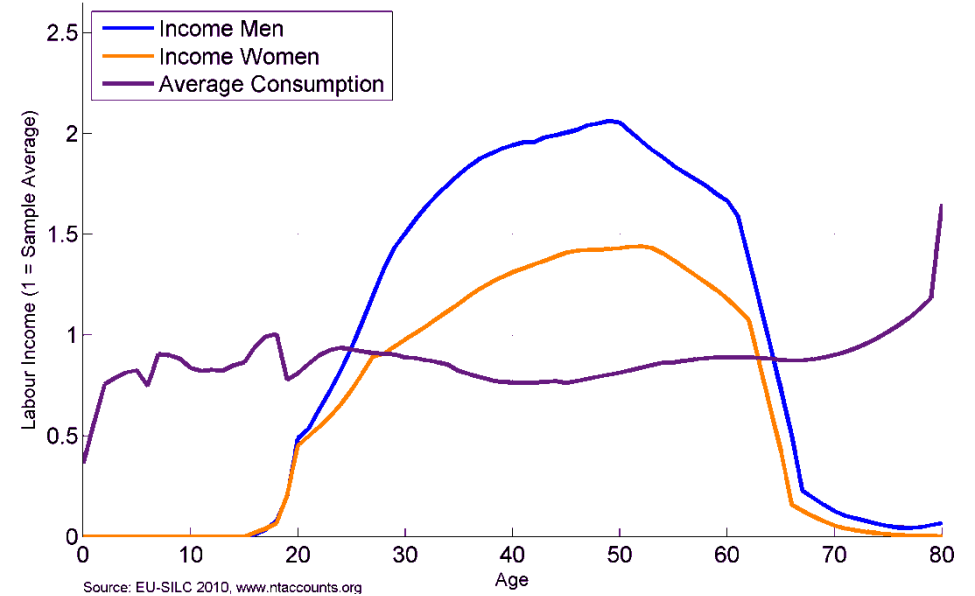


Labour Income and Consumption by Age and Sex

Labour Income and Consumption by Age and Sex: Slovenia



Labour Income and Consumption by Age and Sex: Sweden

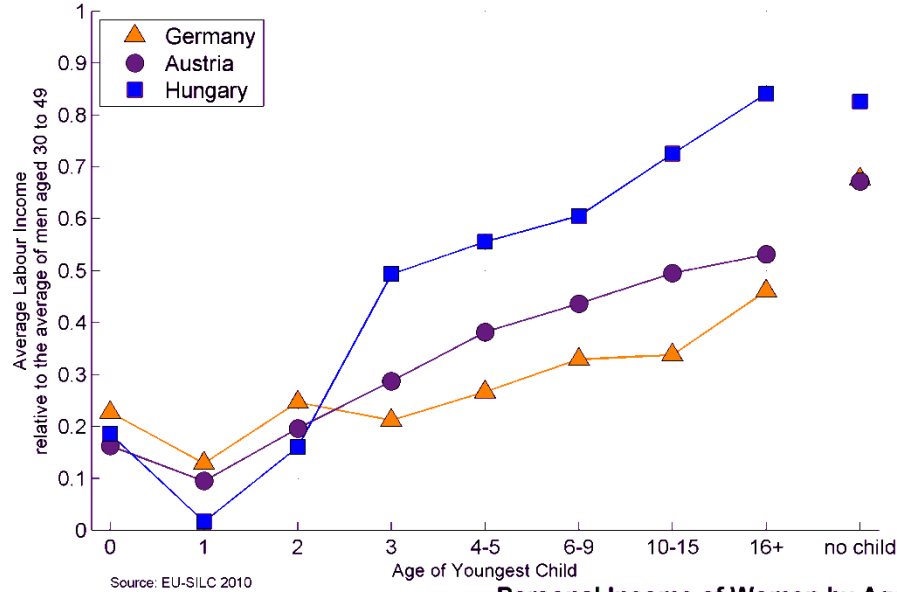


The Life Cycle Deficit by Gender

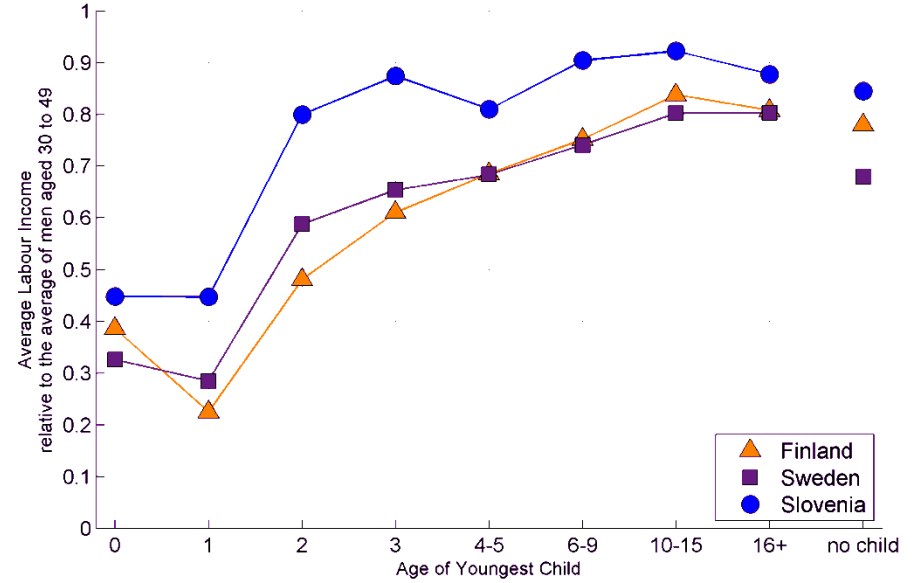
Country		Life Cycle Deficit/Surplus in % of Total Labour Income		
		LCD Young Age	LCS Working Age	LCD Old Age
Italy	Women	16	1	19
	Men	14	25	11
	Total	29	24	29
Austria	Women	11	3	18
	Men	10	30	10
	Total	20	31	26
Sweden	Women	11	12	13
	Men	11	29	8
	Total	22	41	21
Slovenia	Women	14	16	18
	Men	14	23	11
	Total	28	39	28

Income by Age of Youngest Child

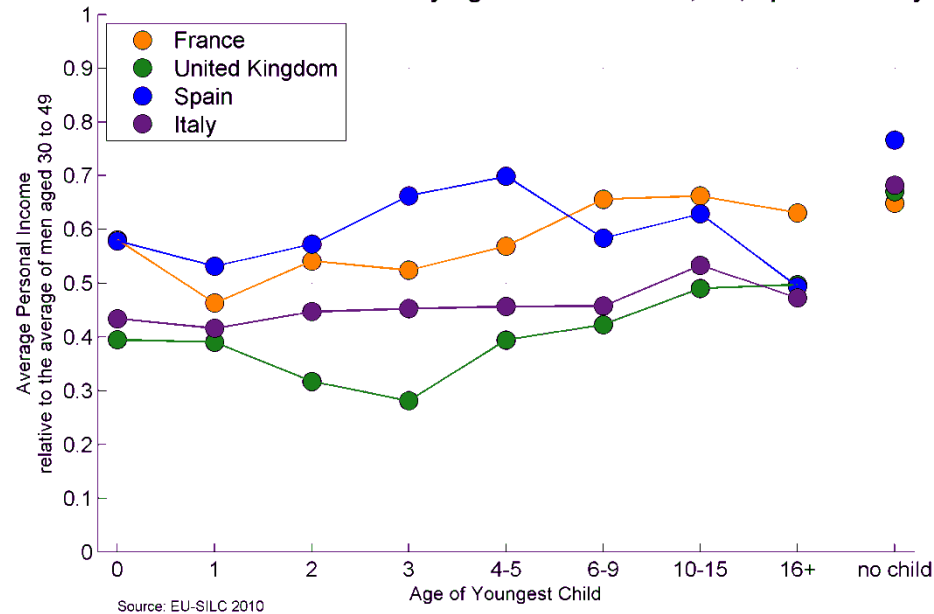
Labour Income of Women by Age of Child: Austria, Germany and Hungary



Labour Income of Women by Age of Child: Finland, Sweden, Slovenia



Personal Income of Women by Age of Child: France, UK, Spain and Italy



2. The Life Cycle Deficit / Surplus for Unpaid Work

Non-market production of households for own consumption is valued by measuring the inputs -> time use

Data:

- Multinational time use survey (MTUS): Harmonized time use data from Finland (1999), France (1998), Germany (2001), Italy (2002), Spain (2002), Slovenia (2000) and United Kingdom (2000);
- National time use data for Austria (2008)

➤ **Production:**

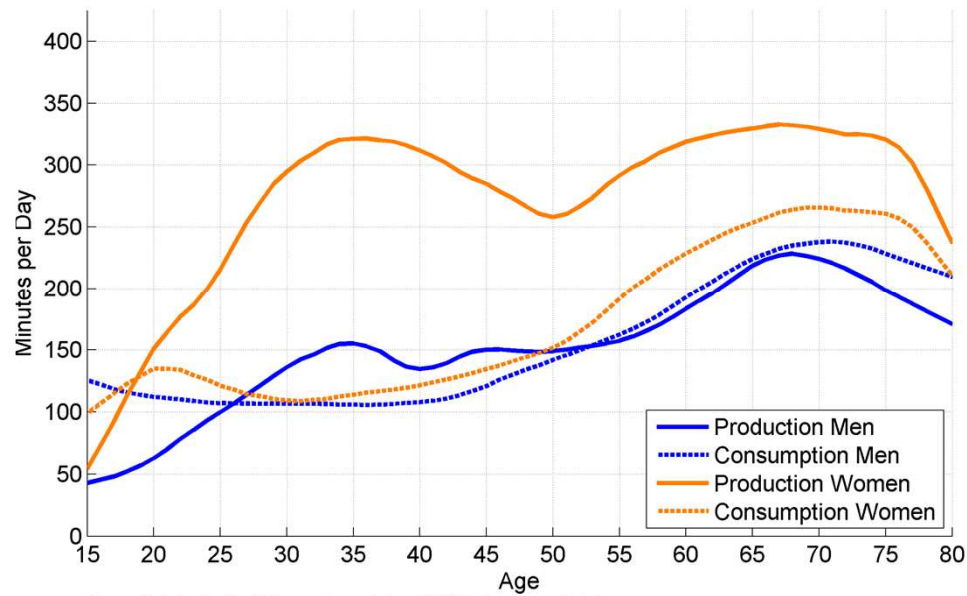
- = average daily minutes devoted to production activities by age and gender.
- Activities: cook/wash up, housework (laundry, cleaning activities), other domestic work (repair, paperwork, pet care, care for adults), gardening, shopping, childcare and travel related with these activities.

➤ **Consumption:**

- **Basic assumption:** Goods and services emerging from non-market household production (excluding childcare) are distributed within the household in equal shares, i.e. every household member consumes the same amount.
- **Children:** Too less information on the age of the children: Consumption estimates only for the age-groups 15+, childcare services are assumed to be consumed by persons below the age of 15.
- **Method:** Time devoted to household work by the adult household members (15+) is summed up divided it among all household members.

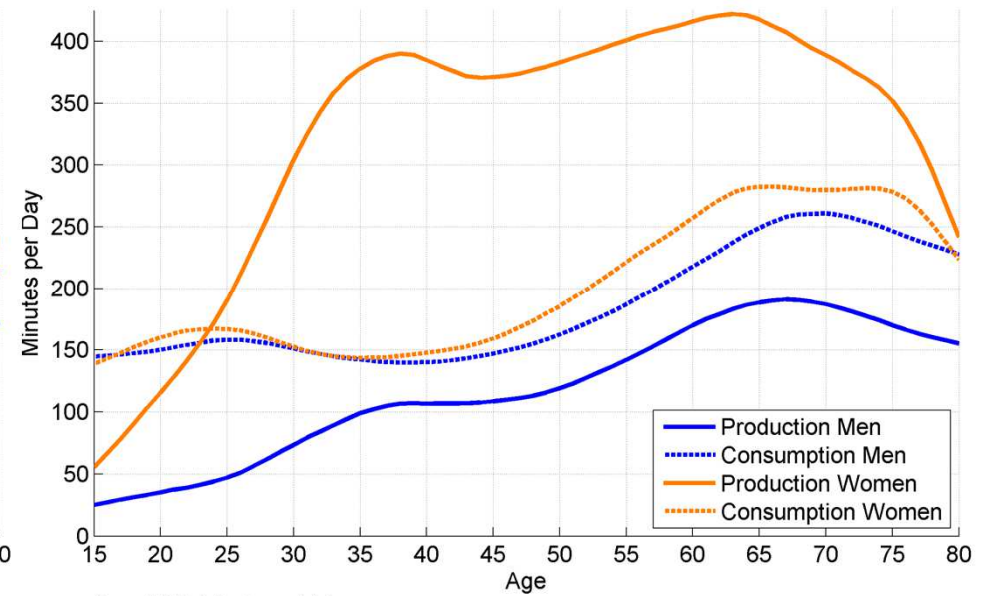
Unpaid Work: Production and Consumption by Age and Sex

Austria 2008



Source: Statistics Austria, Zeitverwendungserhebung 2008; Authors' own calculations

Italy 2002



Source: MTUS; Authors' own calculations

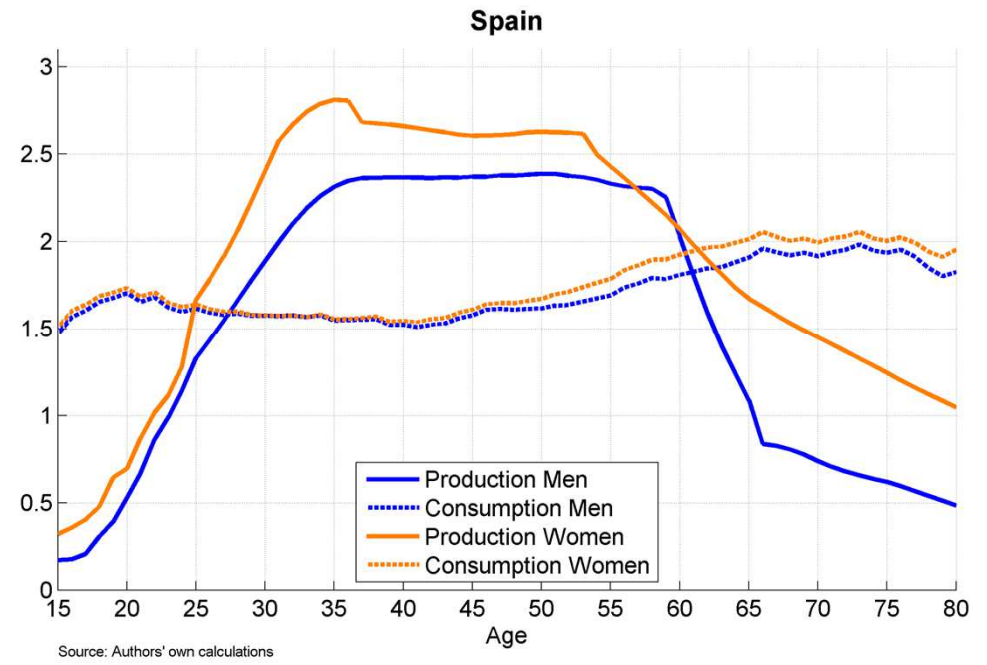
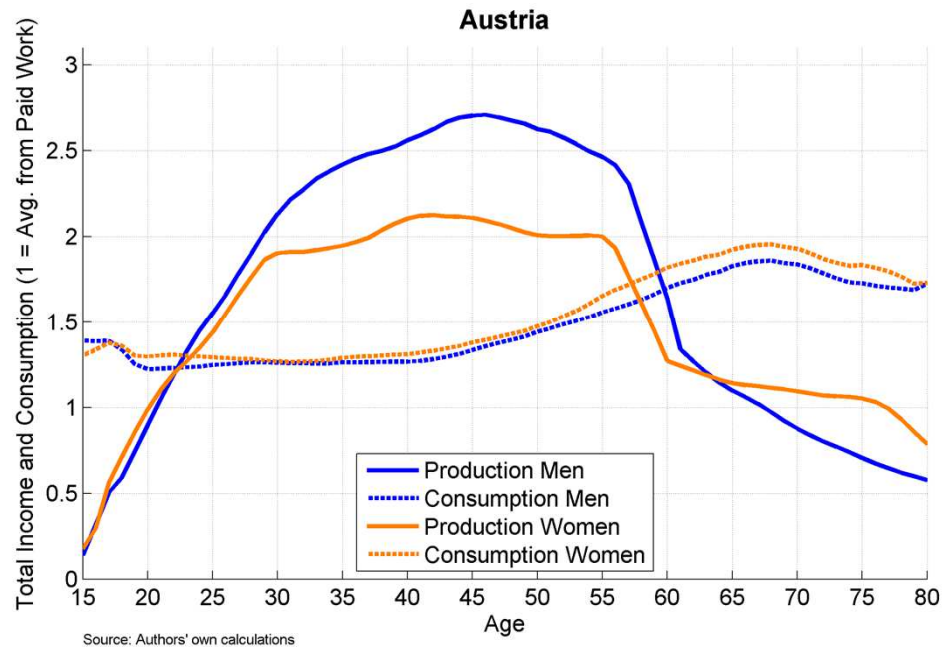
3. The Life Cycle Deficit / Surplus for Paid and Unpaid Work

Methodology

Value the time used for non-market production in monetary terms:

- Unpaid work valued with average hourly net income of a worker in the age group 30-49 years.

Total Production and Consumption by Age and Sex



The Life Cycle Deficit – Paid and Unpaid Work

Country	Sex	Life Cycle Deficit /Surplus		Age Borders	
		LCS Working Age	LCD Old Age	pos. until	pos. from
United Kingdom	Women	8	8	23	58
	Men	14	5	25	61
	Total	22	13	23	60
Austria	Women	10	8	23	58
	Men	18	6	22	60
	Total	28	14	22	59
Spain	Women	14	5	24	62
	Men	10	6	27	61
	Total	24	11	25	62
Slovenia	Women	17	7	24	59
	Men	14	6	25	59
	Total	28	13	24	59

4. Conclusions

1. Economic consequences of population ageing determined by the design of the economic life cycle

-> Changes in the age structure require changes in the age-specific levels of production and consumption

2. The family is an important part of the welfare systems

-> Large transfers to non-productive household members within the family, also in form of goods and services produced by unpaid work

Generation of Labour Income by Age and Sex

Italy				Austria			
Age	Men	Women	Total	Age	Men	Women	Total
<=25	4.3	2.6	6.9	<=25	6.6	4.4	10.9
26 - 40	21.1	12.9	34.0	26 - 40	22.1	11.5	33.6
41-55	27.4	14.6	42.1	41-55	27.3	14.9	42.3
56+	11.7	5.3	17.0	56+	9.9	3.4	13.2
Total	64.6	35.4	100.0	Total	65.8	34.2	100.0
Sweden				Slovenia			
Age	Men	Women	Total	Age	Men	Women	Total
<=25	3.8	3.3	7.1	<=25	3.7	2.6	6.4
26 - 40	19.1	12.7	31.8	26 - 40	22.5	18.5	40.9
41-55	22.6	16.3	38.9	41-55	23.3	21.0	44.3
56+	13.0	9.2	22.2	56+	5.8	2.6	8.4
Total	58.5	41.5	100.0	Total	55.3	44.7	100.0