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# Reallocation of Resources Across Age in a Comparative European Setting

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***Topic of our paper:***

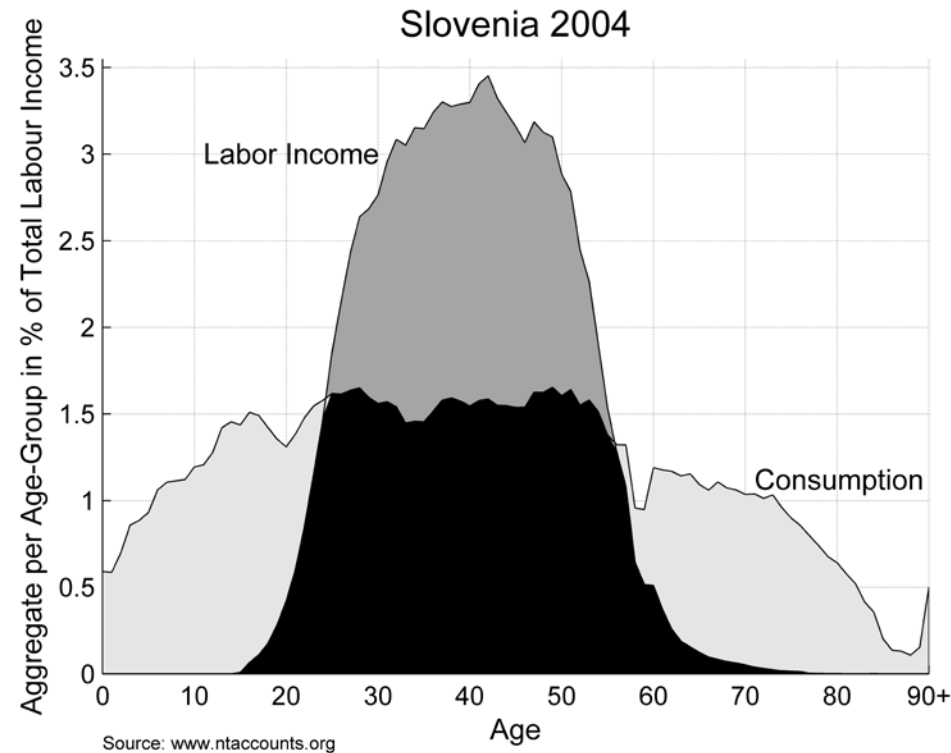
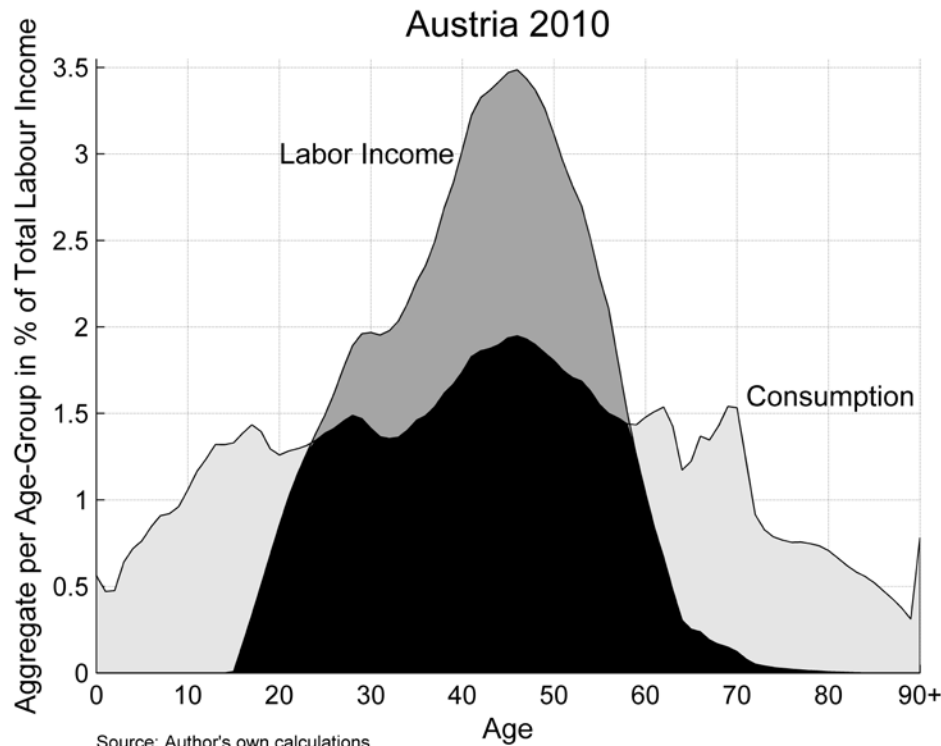
***Cross country comparison of production activities by age and gender using the Life Cycle Deficit***

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

**Outline:**

- 1. The NTA Life Cycle Deficit / Surplus by Gender**
- 2. The NTTA Life Cycle Deficit / Surplus**
- 3. The Total Life Cycle Deficit / Surplus**
- 4. Conclusions**

# The NTA Aggregate Life Cycle Deficit



## The Aggregate Life Cycle Deficit / Surplus is influenced by:

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

Country	Aggregate LCD/LCS in % of Total Labour Income		
	LCD Young	LCS Working Age	LCD Old Age
Austria 2010	19	31	25
Germany 2003	21	31	32
Hungary 2005	23	33	23
Italy 2008	24	24	30
Finland 2004	26	30	23
Slovenia 2003	25	41	23
Spain 2000	25	31	21
Sweden 2003	24	41	22

## 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?

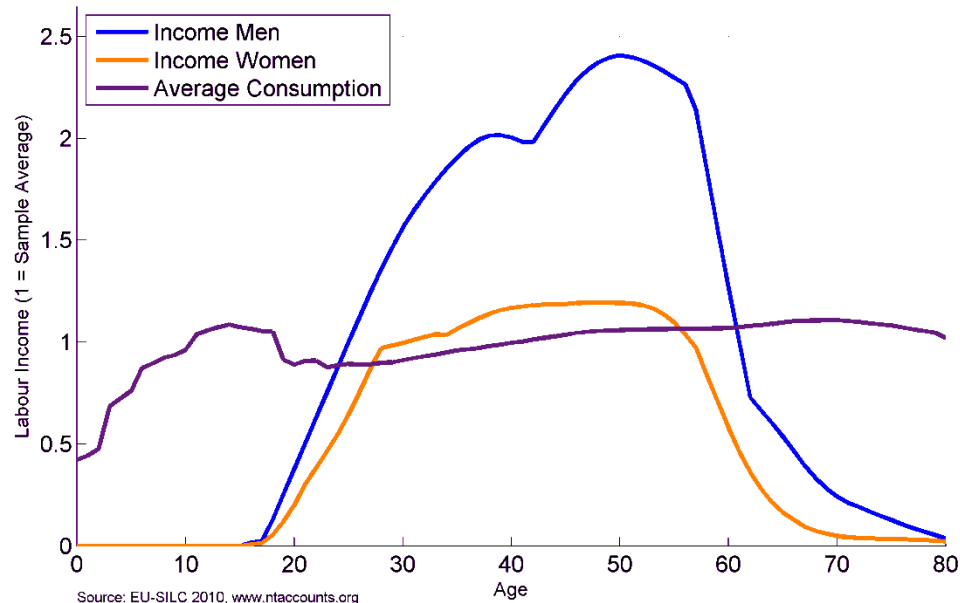
# **1. The NTA Life Cycle Deficit/Surplus by Gender**

## Data:

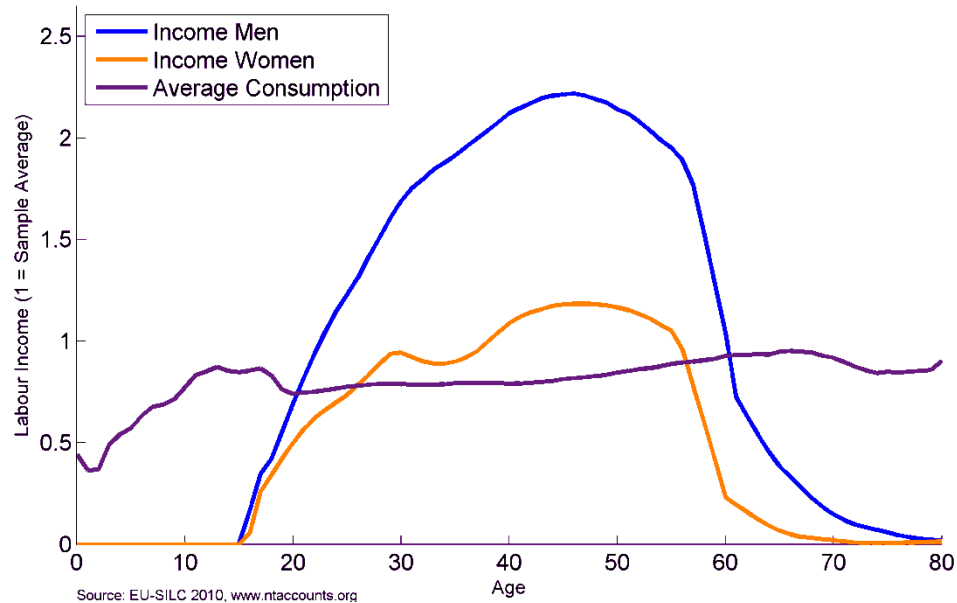
- **Labour income** by age: European Survey of Income and Living Conditions (EU-SILC) 2010
- **Consumption** by age: National Transfer Accounts (NTA) project (-> not gender-specific)
- **Aggregates:** Share of consumption to labour income from the System of National Accounts (SNA) 2010

# Labour Income and Consumption by Age and Sex

### Labour Income and Consumption by Age and Sex: Italy

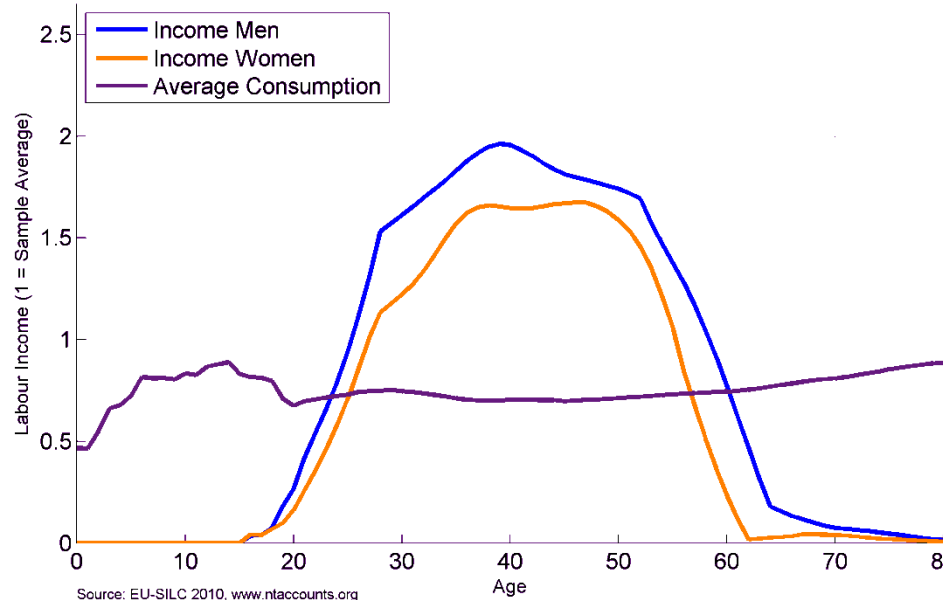


### Labour Income and Consumption by Age and Sex: Austria

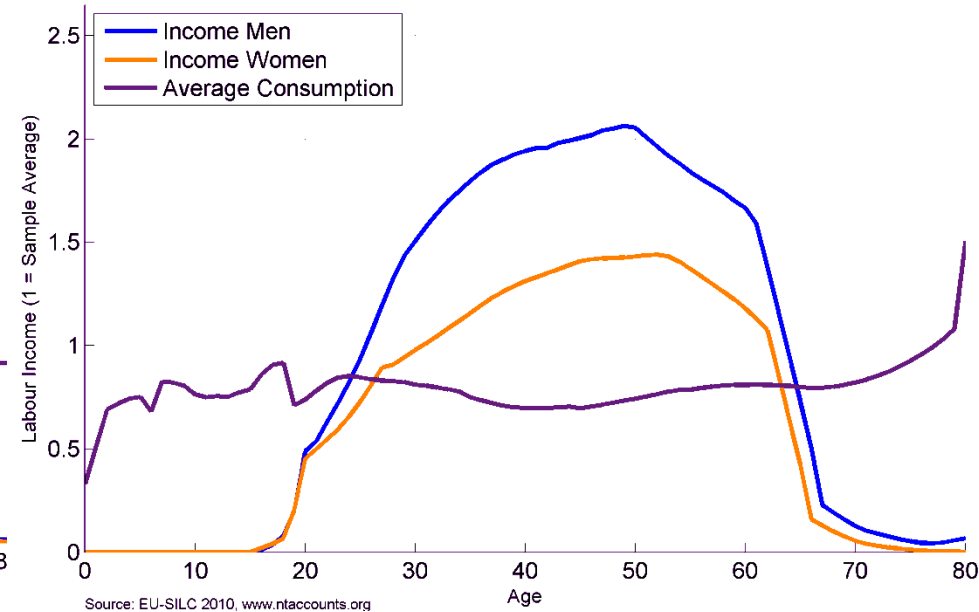


# Labour Income and Consumption by Age and Sex

### Labour Income and Consumption by Age and Sex: Slovenia



### Labour Income and Consumption by Age and Sex: Sweden



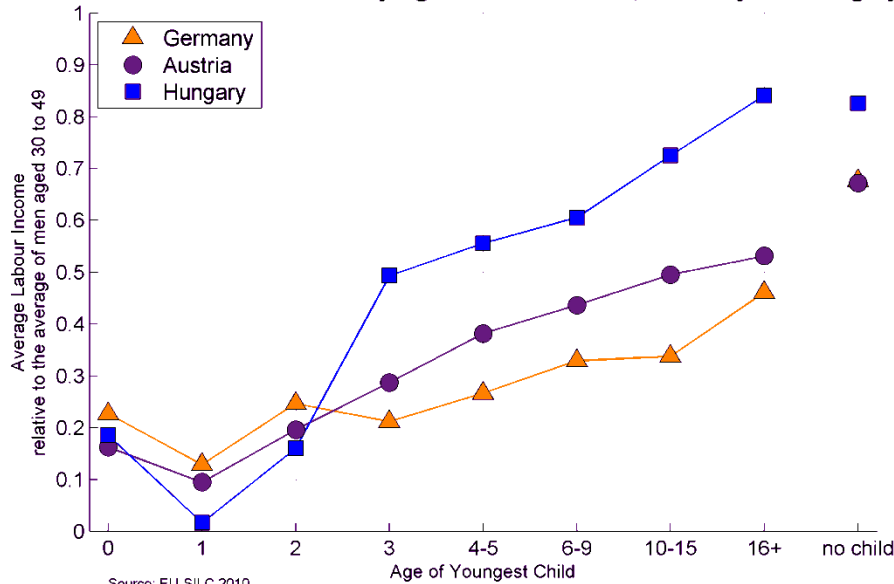


# The Life Cycle Deficit by Gender

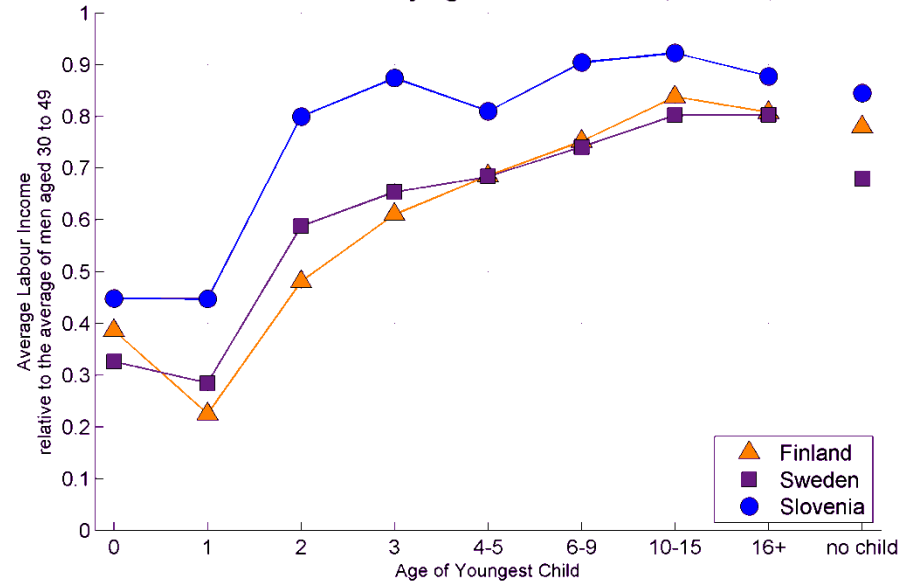
Aggregate Life Cycle Deficit/Surplus in % of Total Labour Income				
Country		LCD Young Age	LCS Working Age	LCD Old Age
Italy	Women	16	3	20
	Men	17	28	12
	<b>Total</b>	<b>33</b>	<b>30</b>	<b>31</b>
Austria	Women	11	6	18
	Men	12	33	11
	<b>Total</b>	<b>22</b>	<b>38</b>	<b>28</b>
Sweden	Women	12	14	16
	Men	13	30	10
	<b>Total</b>	<b>25</b>	<b>44</b>	<b>26</b>
Slovenia	Women	14	20	17
	Men	15	28	11
	<b>Total</b>	<b>29</b>	<b>48</b>	<b>28</b>

# Income by Age of Youngest Child

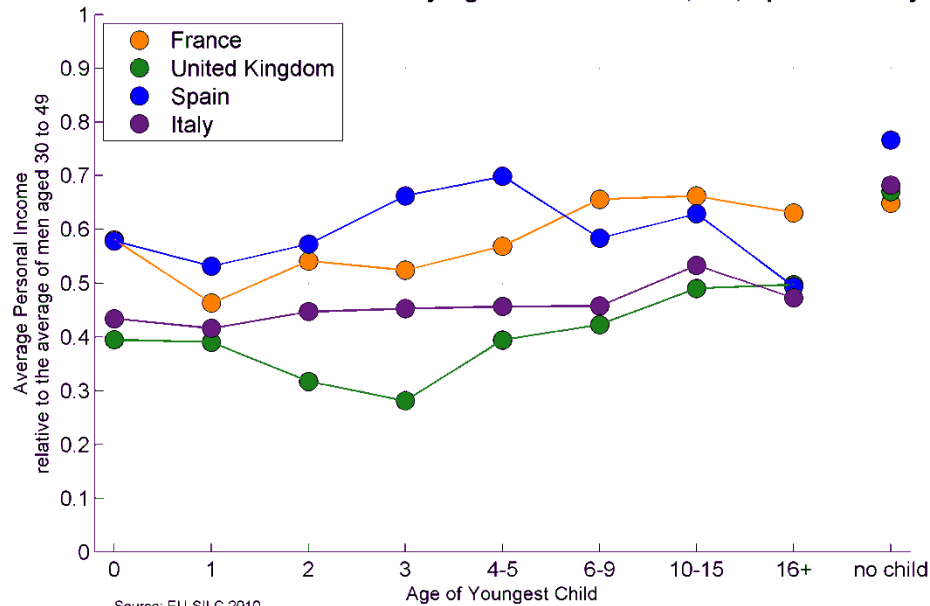
Labour Income of Women by Age of Child: Austria, Germany and Hungary



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:

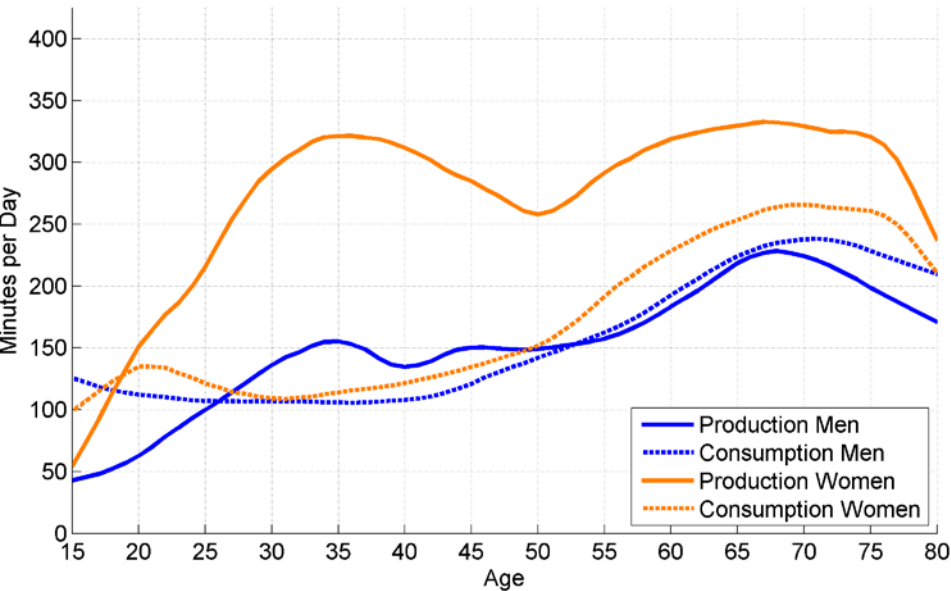
- = average daily minutes devoted to production activities by age and gender.
- Activities: cook/wash up, housework (laundry, cleaning activities), other domestic work (repair, paperwork, pet care, care for adults), gardening, shopping, childcare and travel related with these activities.

## ➤ **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.

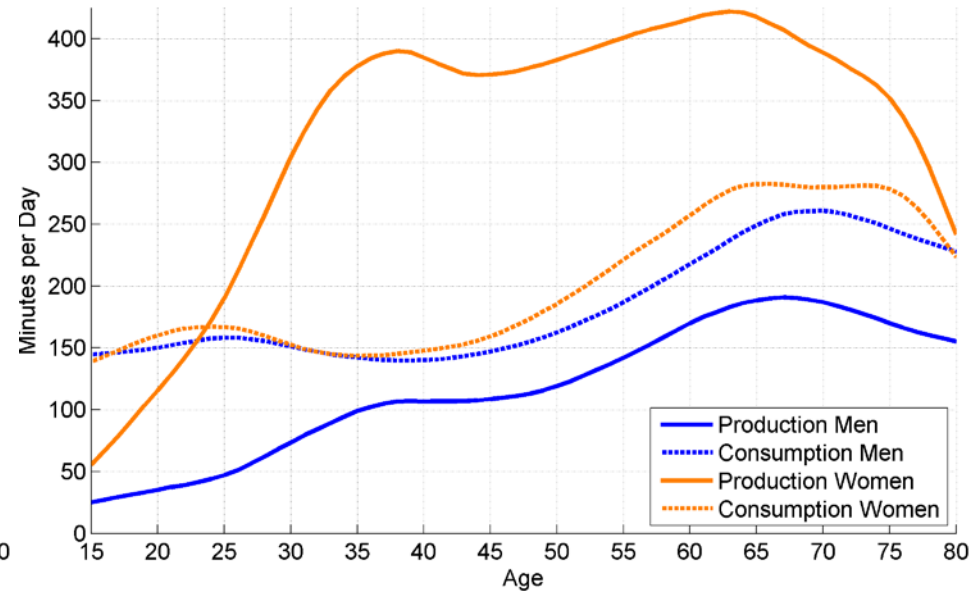
# Unpaid Work: Production and Consumption by Age and Sex

### Austria 2008



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

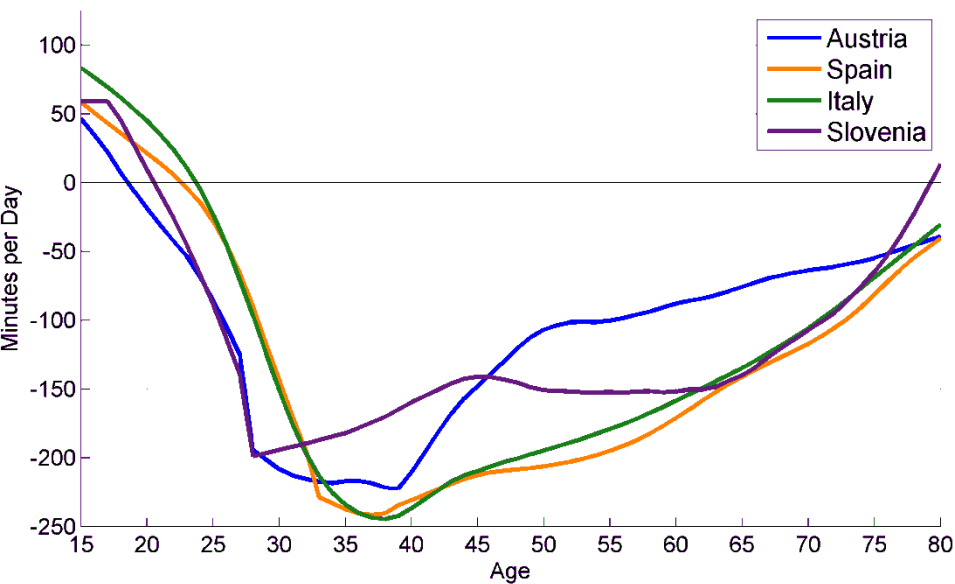
### Italy 2002



Source: MTUS; Authors' own calculations

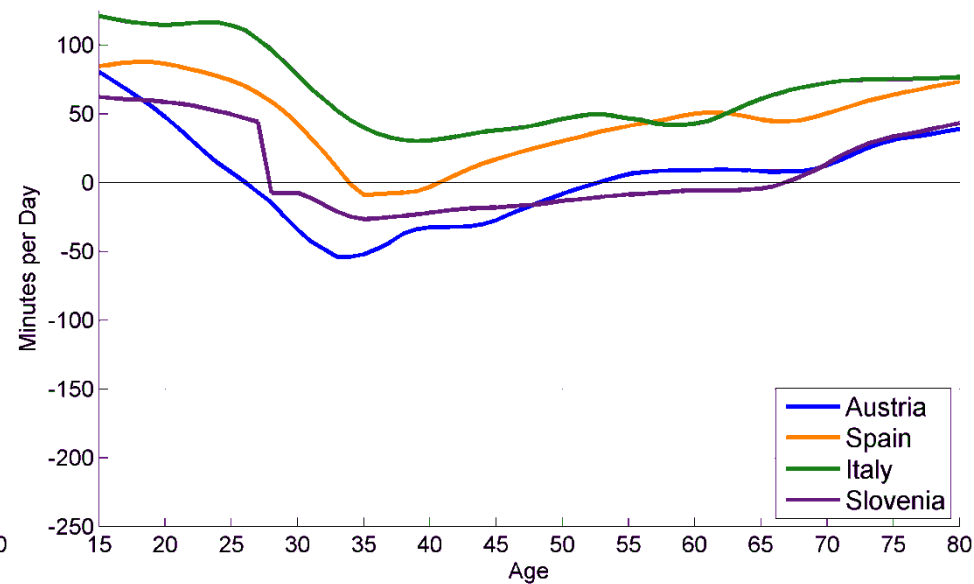
# Unpaid Work: The Life Cycle Deficit by Gender

### Life Cycle Deficit Unpaid Work Women



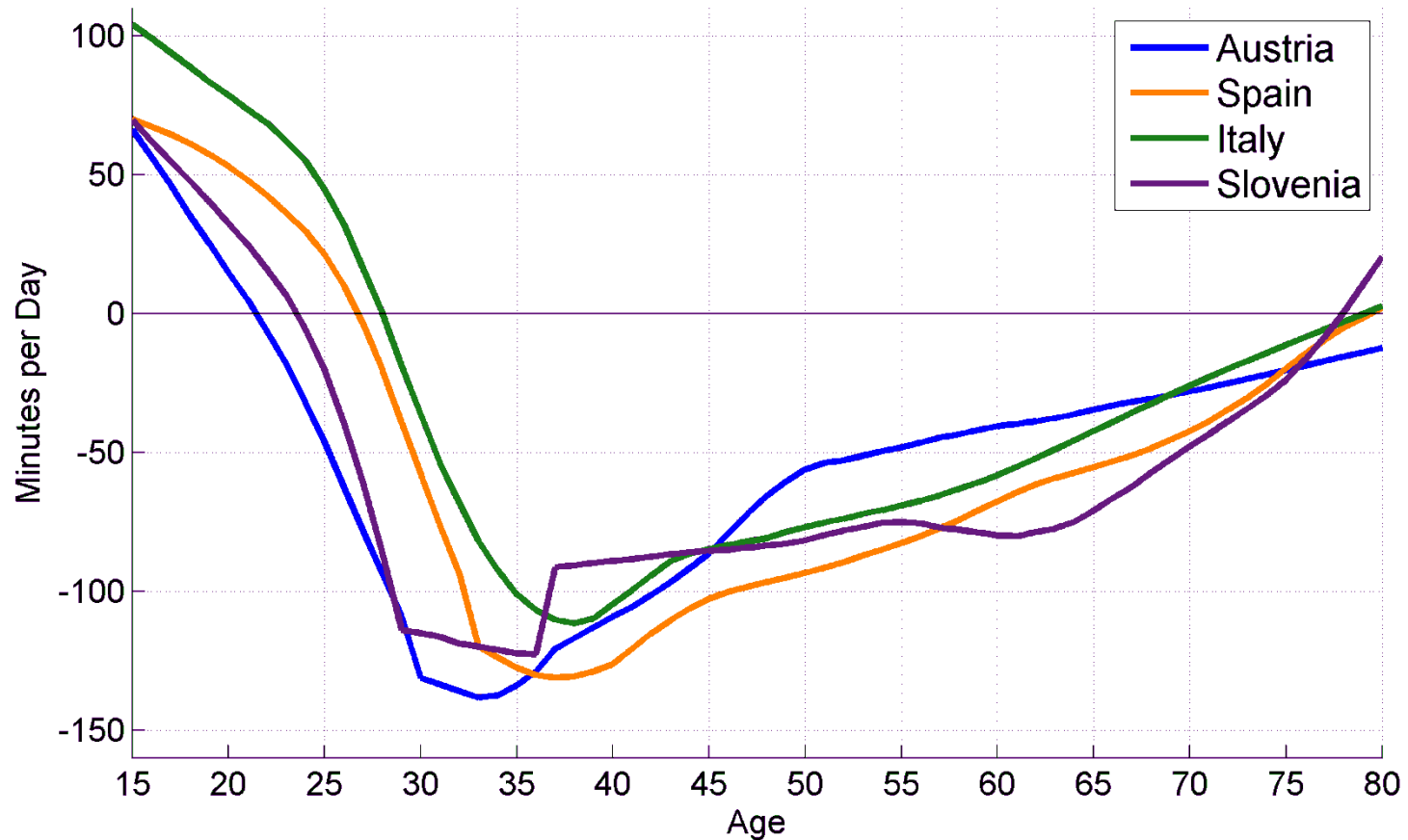
Source: MTUS, Statistics Austria - Zeitverwendungserhebung 2008; Author's calculations

### Life Cycle Deficit Unpaid Work Men



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

## Life Cycle Deficit Unpaid Work Men and Women



Source: MTUS, Statistics Austria - Zeitverwendungserhebung 2008; Author's calculations



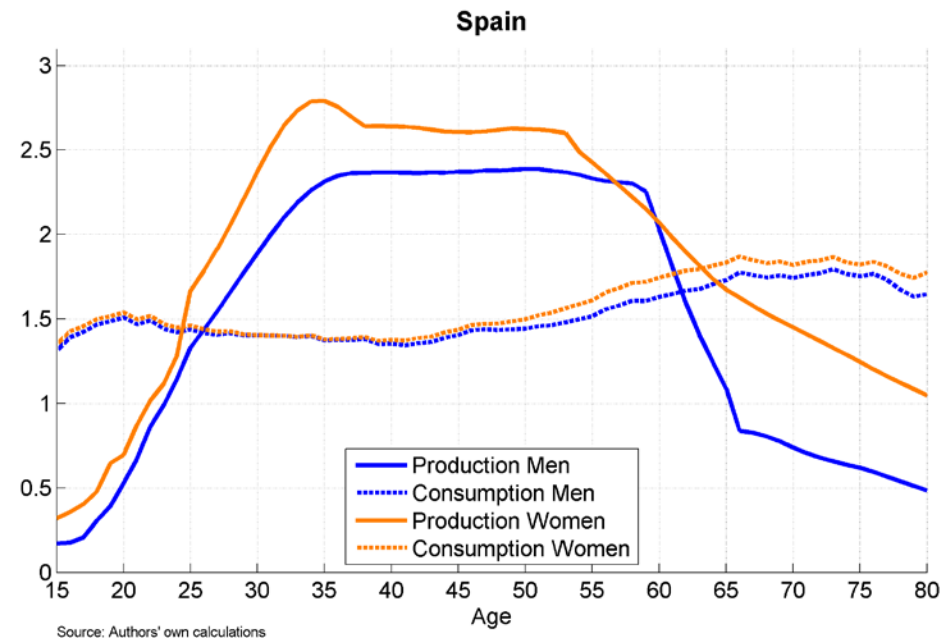
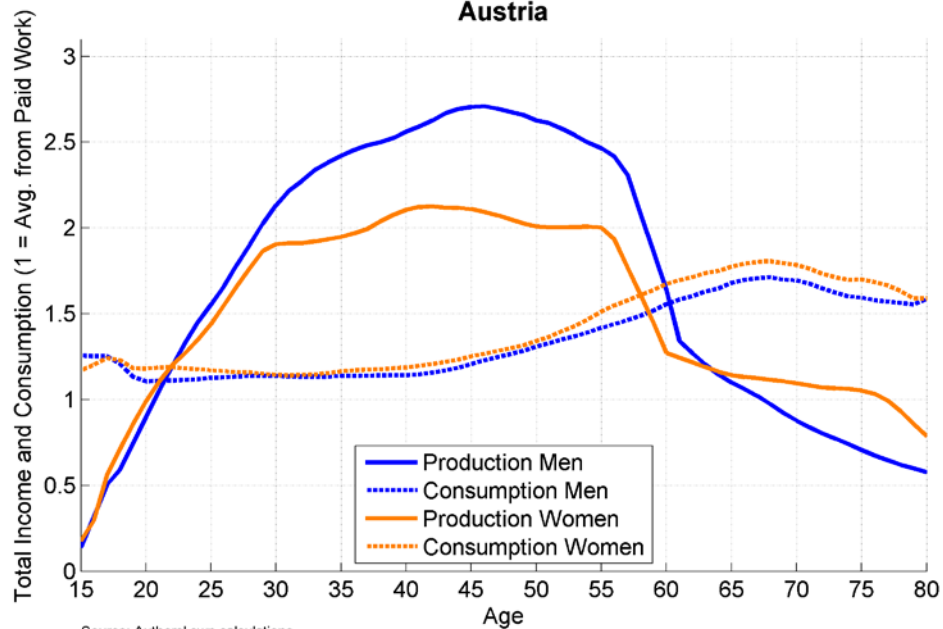
# 3. The Total Life Cycle Deficit / Surplus

## 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.

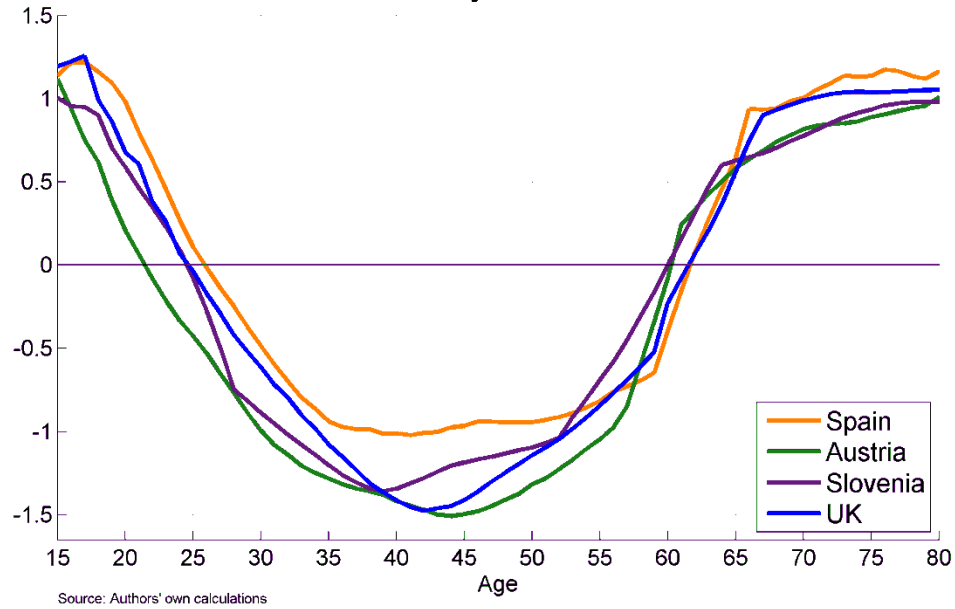
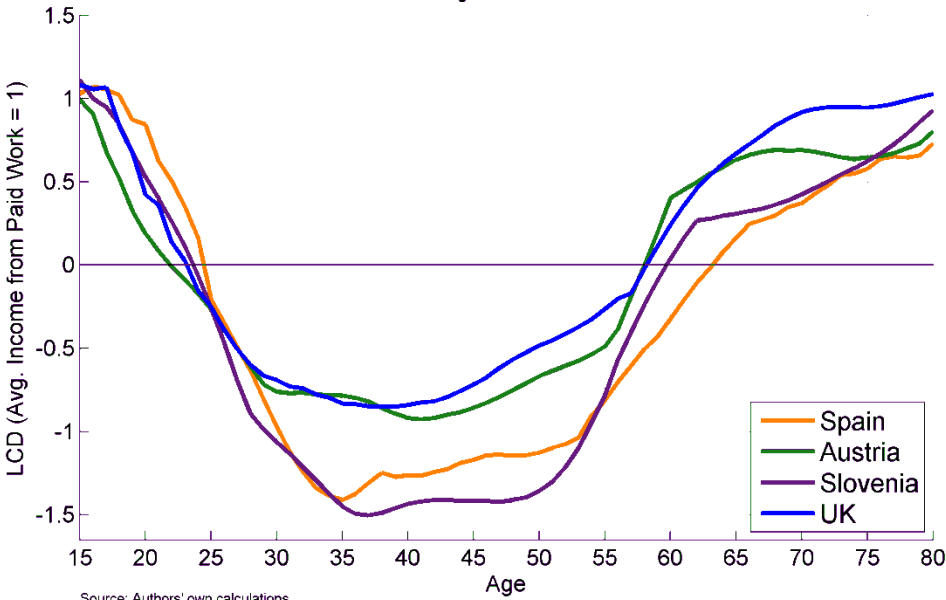
# Total Production and Consumption by Age and Sex



# The NTTA Life Cycle Deficit by Gender

### Total Life Cycle Deficit Women

### Total Life Cycle Deficit Men



# The NTTA Life Cycle Deficit

Country	Sex	Life Cycle Deficit /Surplus		Age Borders	
		LCS Working Age	LCD Old Age	pos. until	pos. from
UK	Women	9	9	23	59
	Men	15	6	24	62
	<b>Total</b>	<b>23</b>	<b>15</b>	<b>23</b>	<b>60</b>
Austria	Women	11	8	21	59
	Men	19	7	21	61
	<b>Total</b>	<b>30</b>	<b>14</b>	<b>21</b>	<b>60</b>
Spain	Women	16	5	24	64
	Men	12	7	23	62
	<b>Total</b>	<b>28</b>	<b>12</b>	<b>24</b>	<b>63</b>
Slovenia	Women	19	6	24	60
	Men	16	7	23	61
	<b>Total</b>	<b>31</b>	<b>13</b>	<b>24</b>	<b>60</b>

## 4. Conclusions

## Two very important developments in NTA:

### 1. Including production through unpaid work

- Large transfers from parents to children in form of goods and services produced by households for their own consumption
- Contributions of women to total production in terms of time is about the same or more (in some countries much more) than the contributions of men
- Household production of the elderly mainly consumed by themselves (exception: Slovenia)

### 2. Analysis by gender:

- Important to understand results from NTA

# Generation of Labour Income by Age and Sex

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



Percentage of Persons Living With Own Child							
Country/Age	<=20	21-30	31-40	41-50	51-60	60-70	71+
Austria	2	31	72	70	38	16	17
Germany	1	24	66	62	26	6	8
Spain	3	20	65	80	65	40	33
Finland	2	31	70	69	24	5	9
France	2	34	78	72	32	9	9
Italy	2	25	65	75	61	35	20
Slovenia	1	29	84	87	55	28	22
UK	4	31	73	76	43	14	10