Sustainability of the Welfare State: A Comparison of Austria and Sweden using NTA

Bernhard Hammer, Jože Sambt, Alexia Prskawetz

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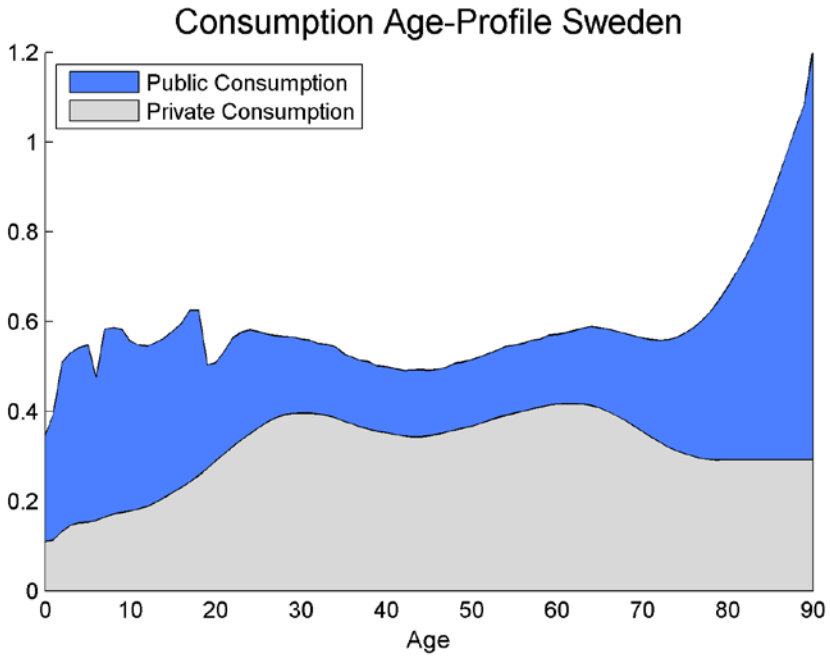
Overview: Main Economic Indicators

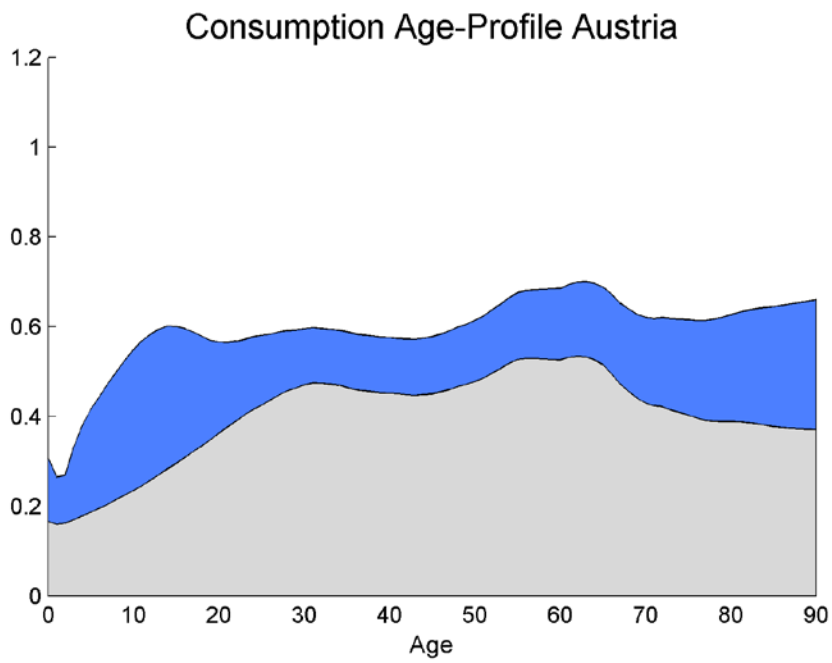
	Sweden	Austria
Population 2010	9.3 Mill.	8.4 Mill.
GDP in PPP – Euros per capita 2010	30,227	30,891
NNI in PPP – Euros per capita 2010	22,952	22,949

Generation and Use of NNI (in Percent)		
	Sweden	**Austria**
Labor Income	77.7	77.3
Asset Income	22.3	22.7
Consumption	82.9	86.8
Savings	15	11.9
Savings private/public	13.5/1.5	14.5/-2.6
Transfers to ROW	2.1	1.2

Labor Income

Consumption

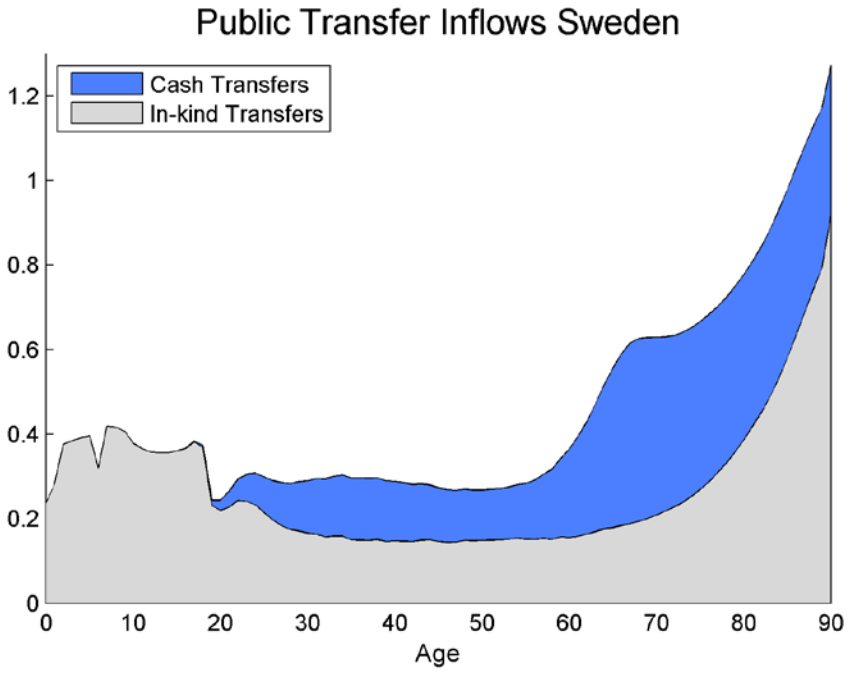


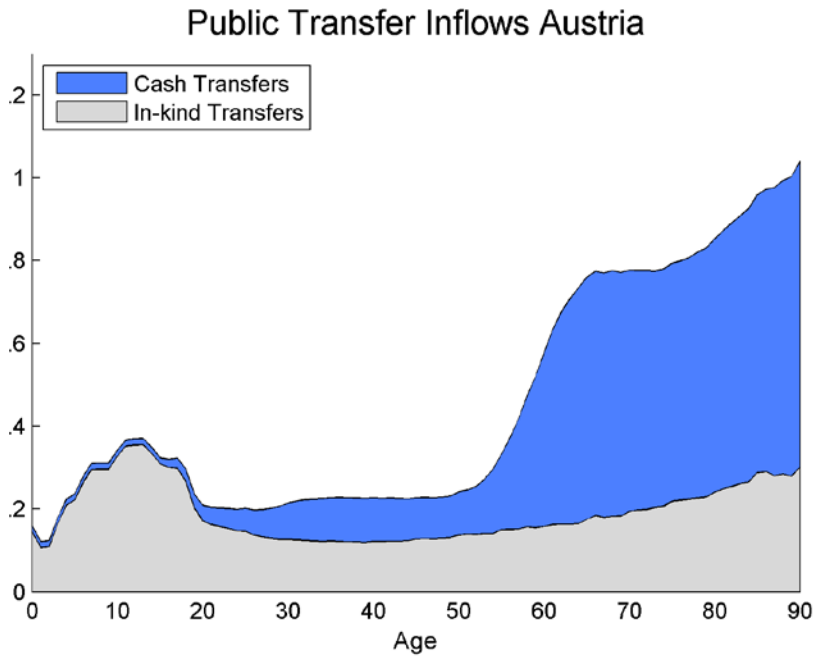


Consumption in PPP per Capita 2010

	Sweden	Austria
Total Consumtion	19,024	19,924
Public Consumption	43%	30%
Private Consumption	57%	70%

Public Transfer Inflows





Economic Form of Public Transfer Inflows in % of Total		
Transfers In-kind	61	47
Transfers in Cash	39	53

Outline

1. Pensions
2. Sustainability
3. Distribution of public transfers

Public Pensions

	Sweden	Austria
Average age of labor market exit	63.6f / 66m	57.5f / 58.5m
Theoretical replacement rate	71.4	80.3
Contribution rate in % of gross income	16 PAYG; 2.5 funded	22.8 PAYG
Contribution to occupational pensions	4.5%	
Public spending on pensions in % of GDP	7.2	12.3

Public Pension System in Austria

$$\boldsymbol{pension = average\ income\ in\ n\ „best“\ years * contribution\ period * a}$$

Pension Reform:

Introduction of a universal pension system based on notional accounts (2005)

$\boldsymbol{a}$ … accrual rate; 2 in 2004 -> 1.78

$\boldsymbol{n}$… number of years taken into account in pension calculation: 15 in 2004 -> „lifetime“ in 2028

→ Long transition periods: paralell pension calculation

Incentives:

2010: 28% regular old age pensions, 31% invalidity, 41% early retirement pensions

- Early retirement deductions of 4.2% per year capped at 15%/bonification of 4.2% capped at 12.6%
- Early retirement (old law - phasing out): 55f / 60m without deductions after a contribution period of 40/45 years

The Public Pension System in Sweden

$$\boldsymbol{pension = lifetime\ contributions\ * annutisation\ divisor}$$

annutisation divisor … takes into account remaining life expectancy and future growth

<u>Advantages of the Swedish system:</u>

- Actuarial deductions/benefits for retiring earlier/working longer
- Adjustment to changes in life expectancy
- Balancing mechanism (changes in age-structure)

Public Sector Funding

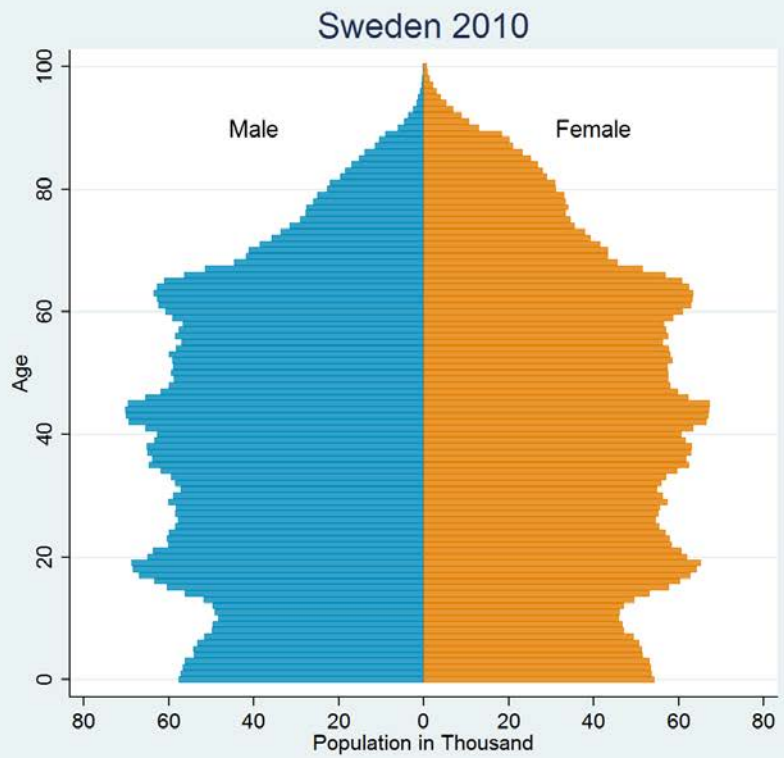
Use of Public Outflows in PPP per Capita 2010		
	Sweden	**Austria**
Total Public Outflows	**-13,719**	**-12,588**
Public Asset Income	234	-463
Public Saving	-343	589
Public Transfers to the ROW	-250	24
Public Transfer Inflows (TGI)	**13,360**	**12,738**

From now on:

Outflows: Transfers from private to the public sector; Taxes (TGF), Social Contributions (TGP) and Other Current Transfers; less transfers to ROW (TGNF)

Inflows: Public Transfer Inflows (TGI)

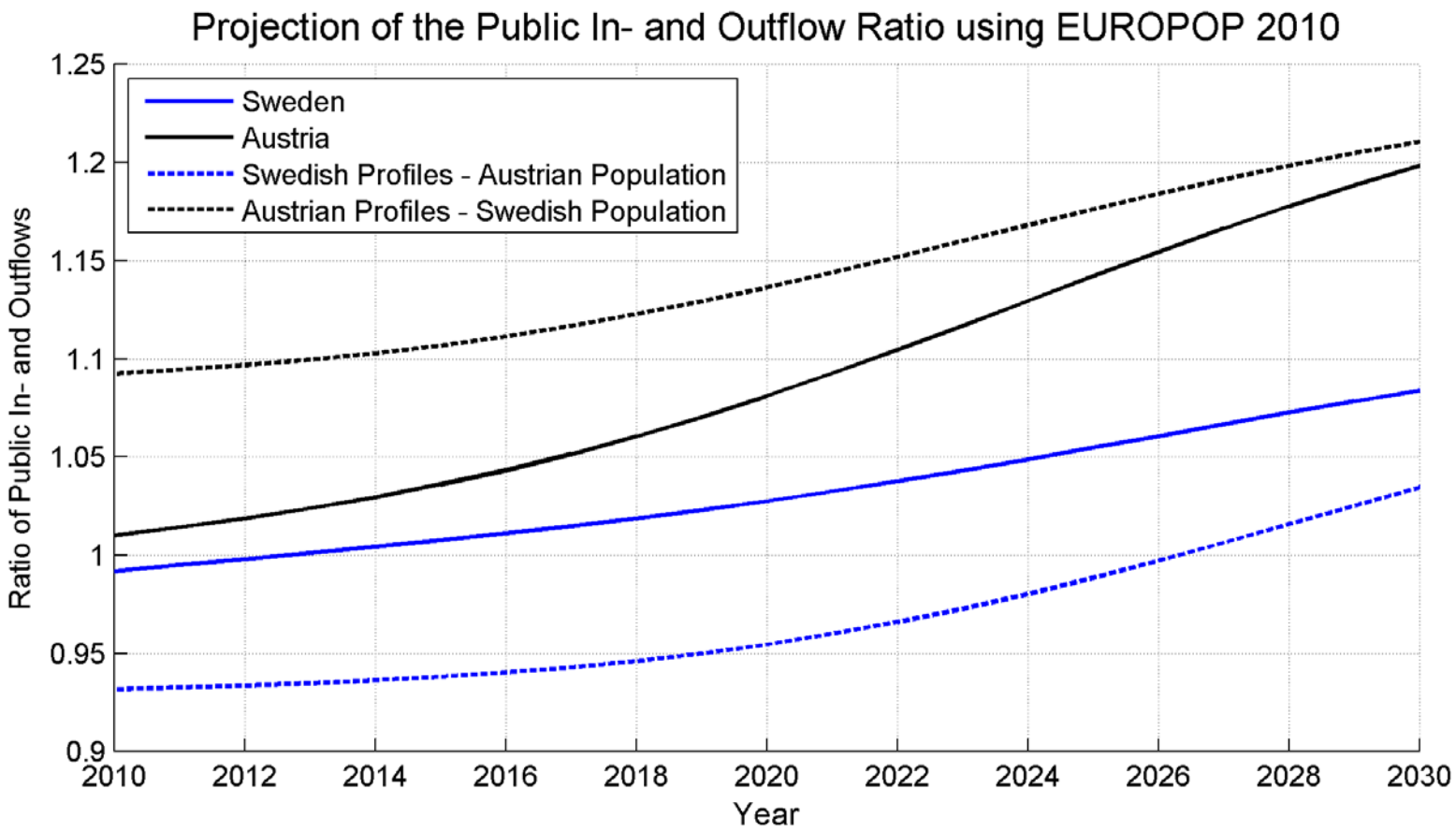
Demography



	Sweden	Austria
Life Expectancy in Years	79.6	77.9
Fertility	1.98	1.44
Old Age Dependency Ratio (20,64) 2010	0.32	0.29
Child Dependency Ratio	0.4	0.33

Sustainability

Balance of In- and Outflows: $\text{RIO} = \frac{\textit{Public Inflows}}{\textit{Public Outflows}}$



Sustainability

Public Resources: Public Outflows + Public Asset Income (YAG)

Public Saving (SG): Public Resources – Public Transfer Inflows (TGI)

$$\textbf{RIO2} = \frac{\textit{Public Inflows}}{\textit{Public Resources}}$$

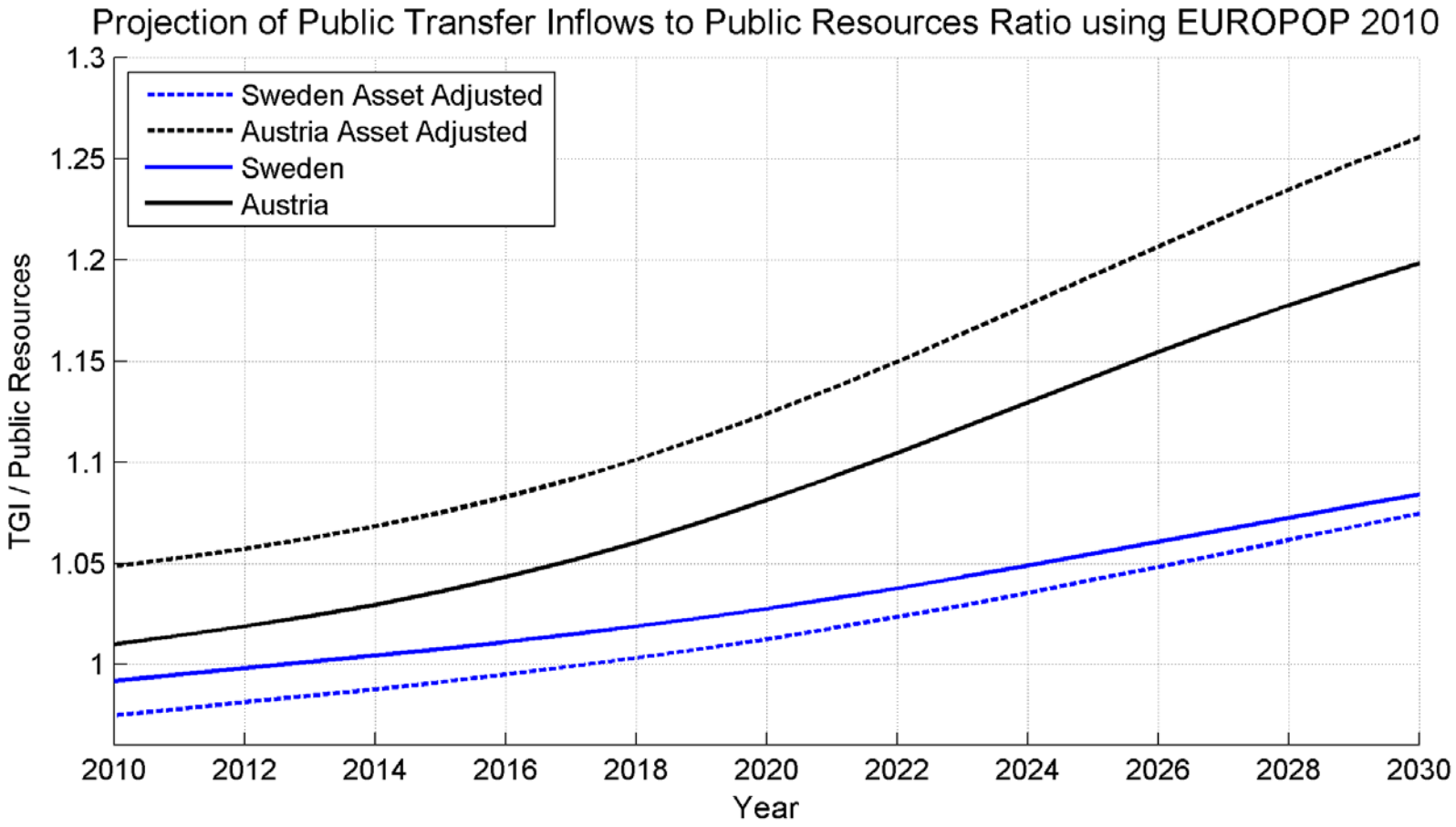
RIO2<1: public sector is saving; RIO2>1: public sector is dissaving

Simulation:

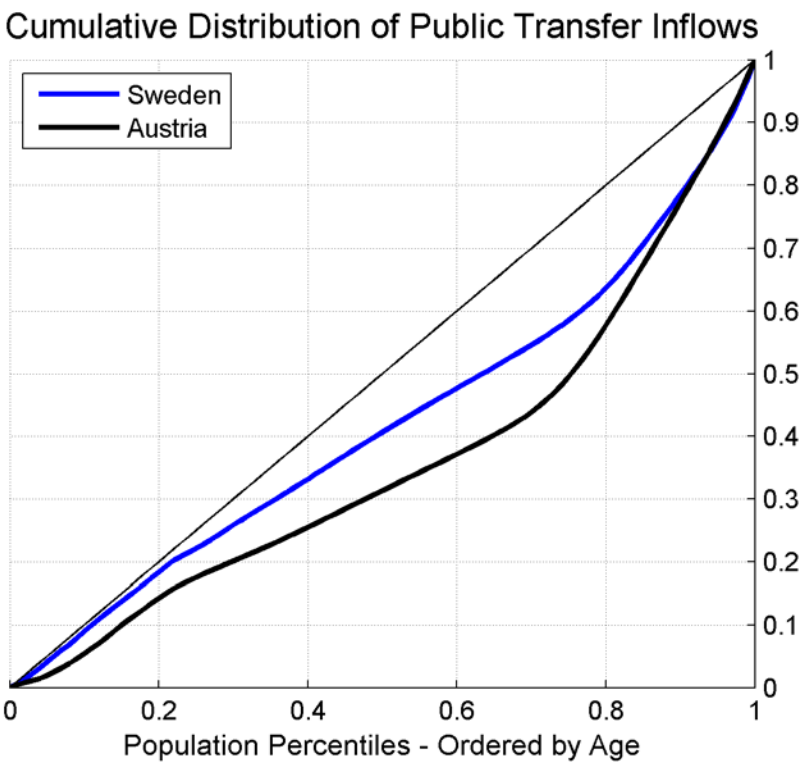
- Compute public resources and TGI by applying age profiles to population projections in year t (starting year = 2010)
- Calculate savings
- Saving increases asset income in year t+1 by 1 percent (of savings)
- Public resources and transfer inflows are growing by 1.5 percent a year

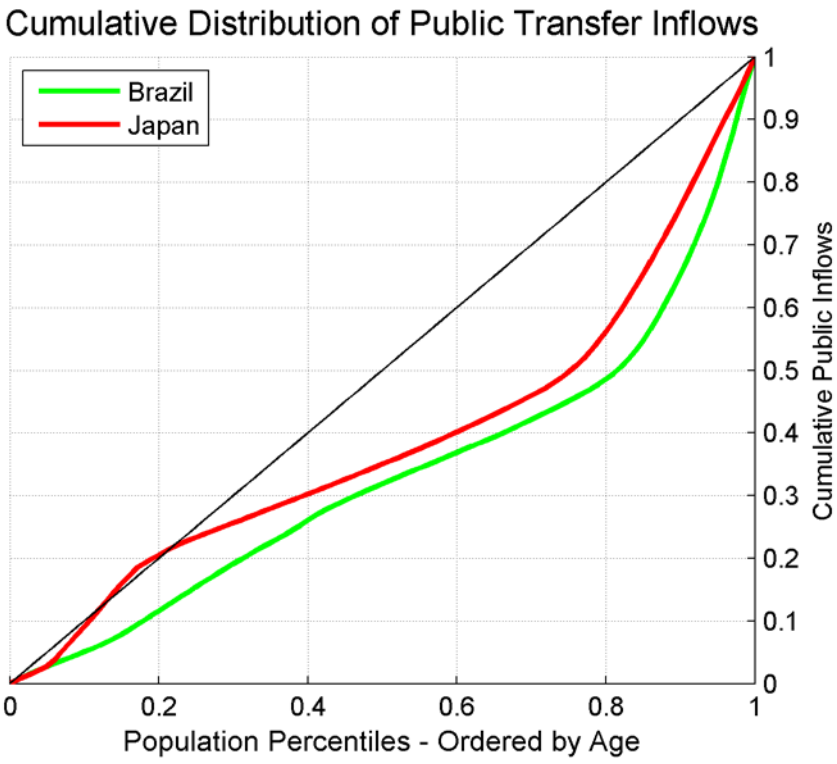
Sustainability

$$RIO2 = \frac{Government\ Transfer\ Inflows}{Taxes + Social\ Contr. + Misc. + Asset\ Income}$$



Public Transfer Inflows: Distribution





Conclusion and Outlook

Conclusion:

- Public age reallocation system in Austria requires profound adjustment and reforms; cosmetic reforms in Sweden.

Short Run Outlook:

- Manipulating single age-profiles

Data Comparability:

- Standardization (Eurostat-data for aggregate controls)
- Documentation

Long Run Outlook:

- Wealth Accounts
- Time Accounts