

# Changing Patterns of Intergenerational Transfers and Life-Cycle Consumption in Finland and Sweden 1990-2006

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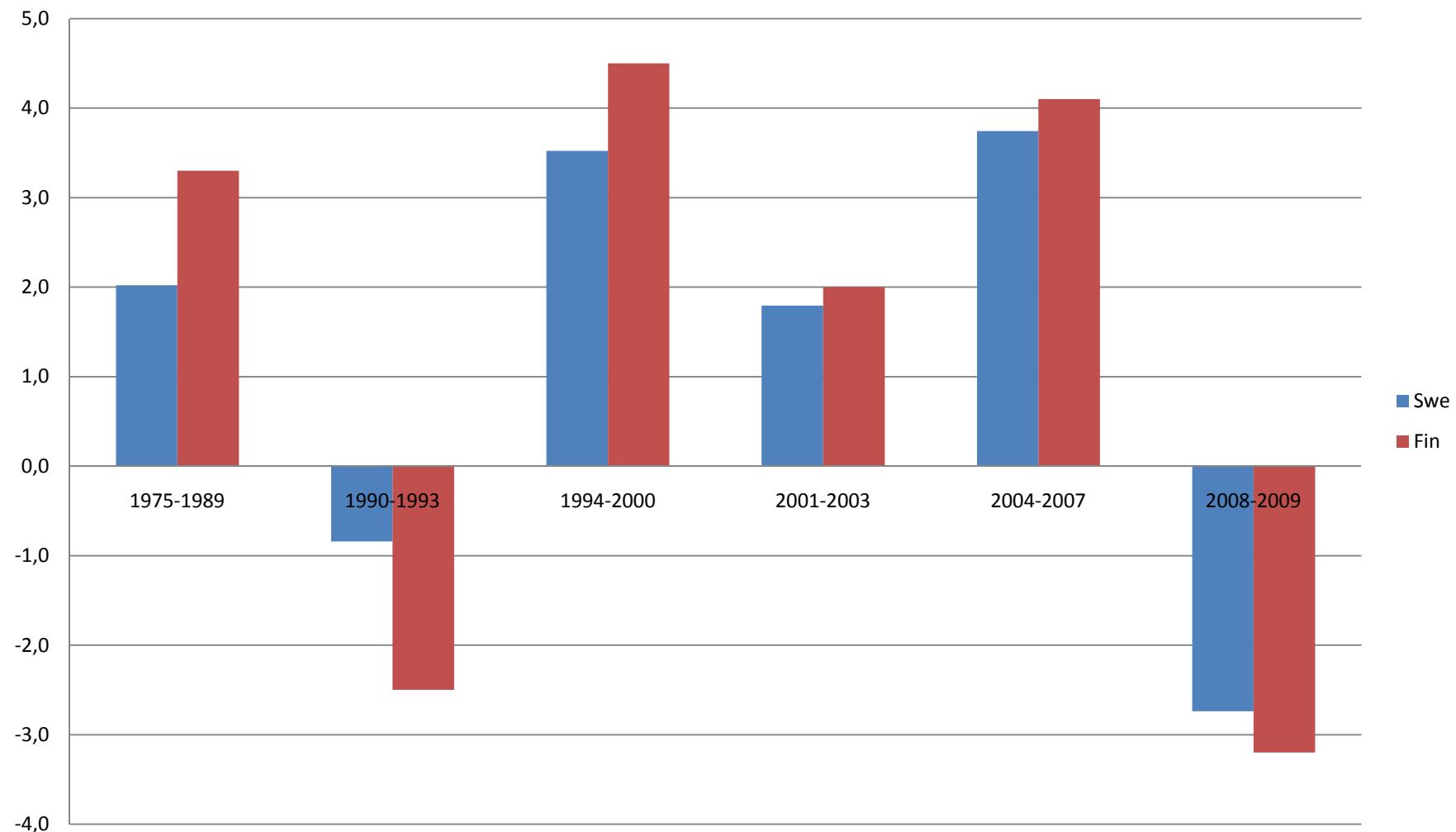
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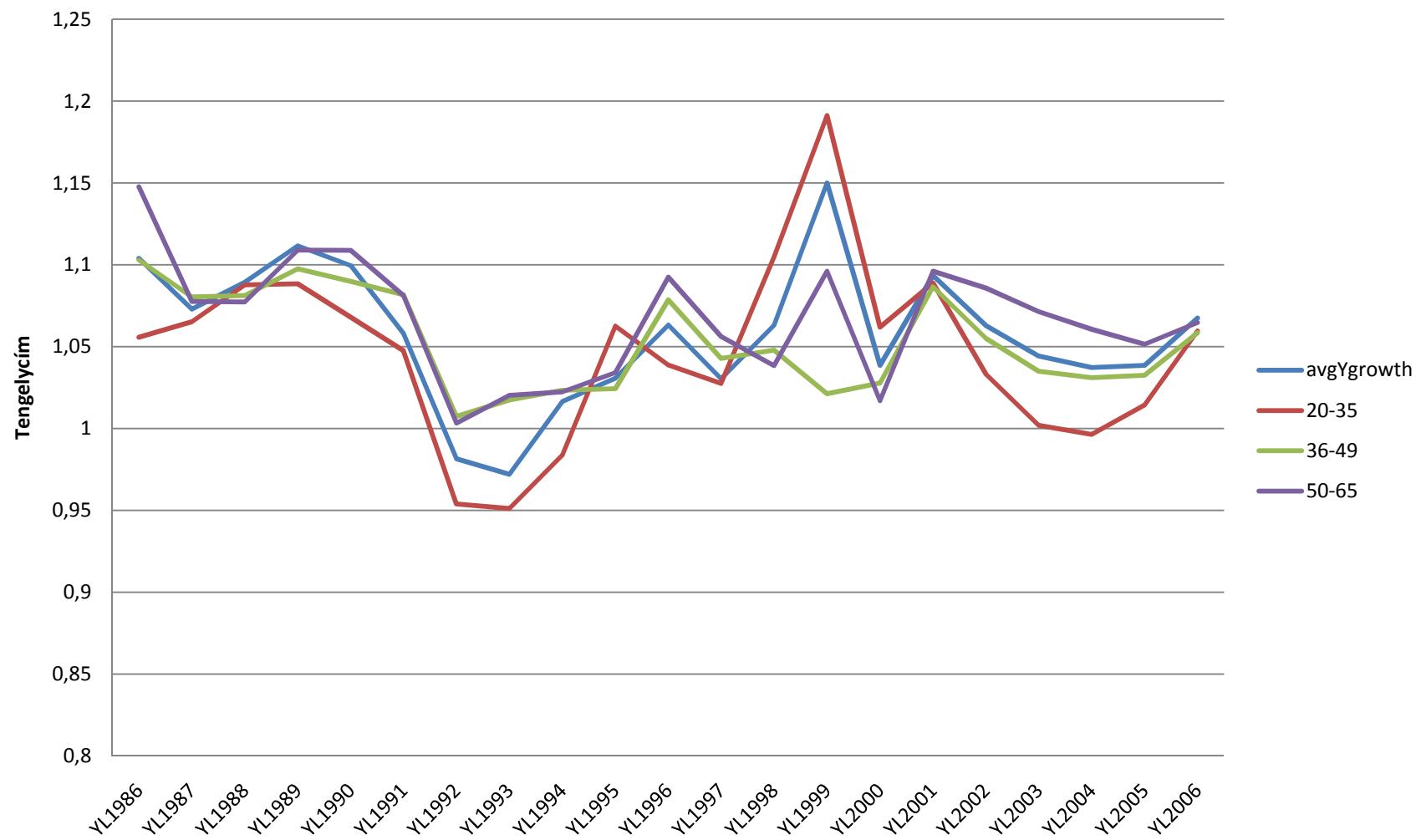
- How did consumption respond to the crisis?
- The long run, before and after crisis:
- Are these countries different
  - Sweden-Finland comparison: decomposing changes of LCD
- This time is different: decomposing changes of LCD of broad age groups
  - **Case Finland** – role of demography, labour income and consumption
- Financing LCD change in the history and in the future
  - **Case Finland** – sustainable?

# Real GDP growth Fin and Swe 1975-2009

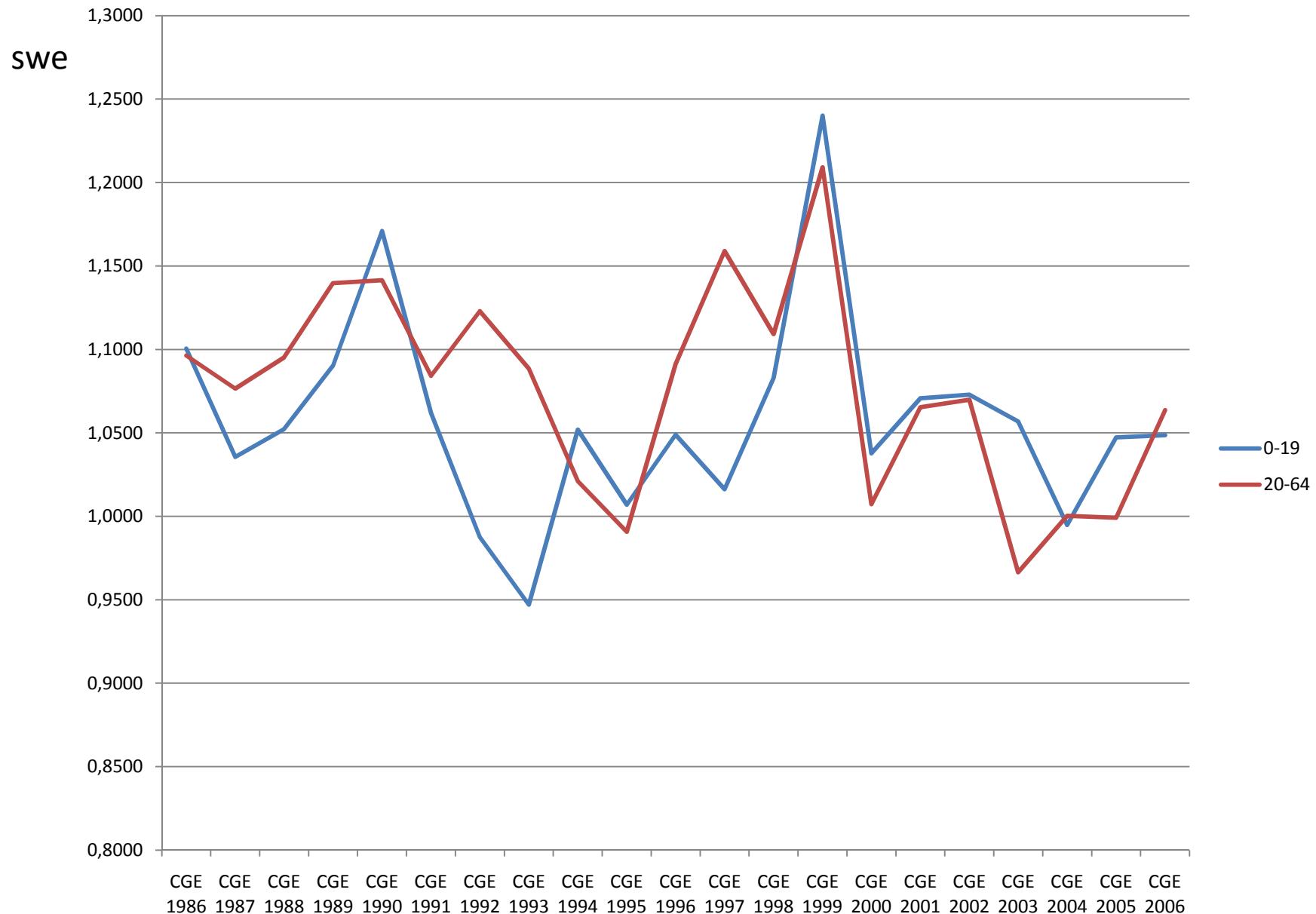


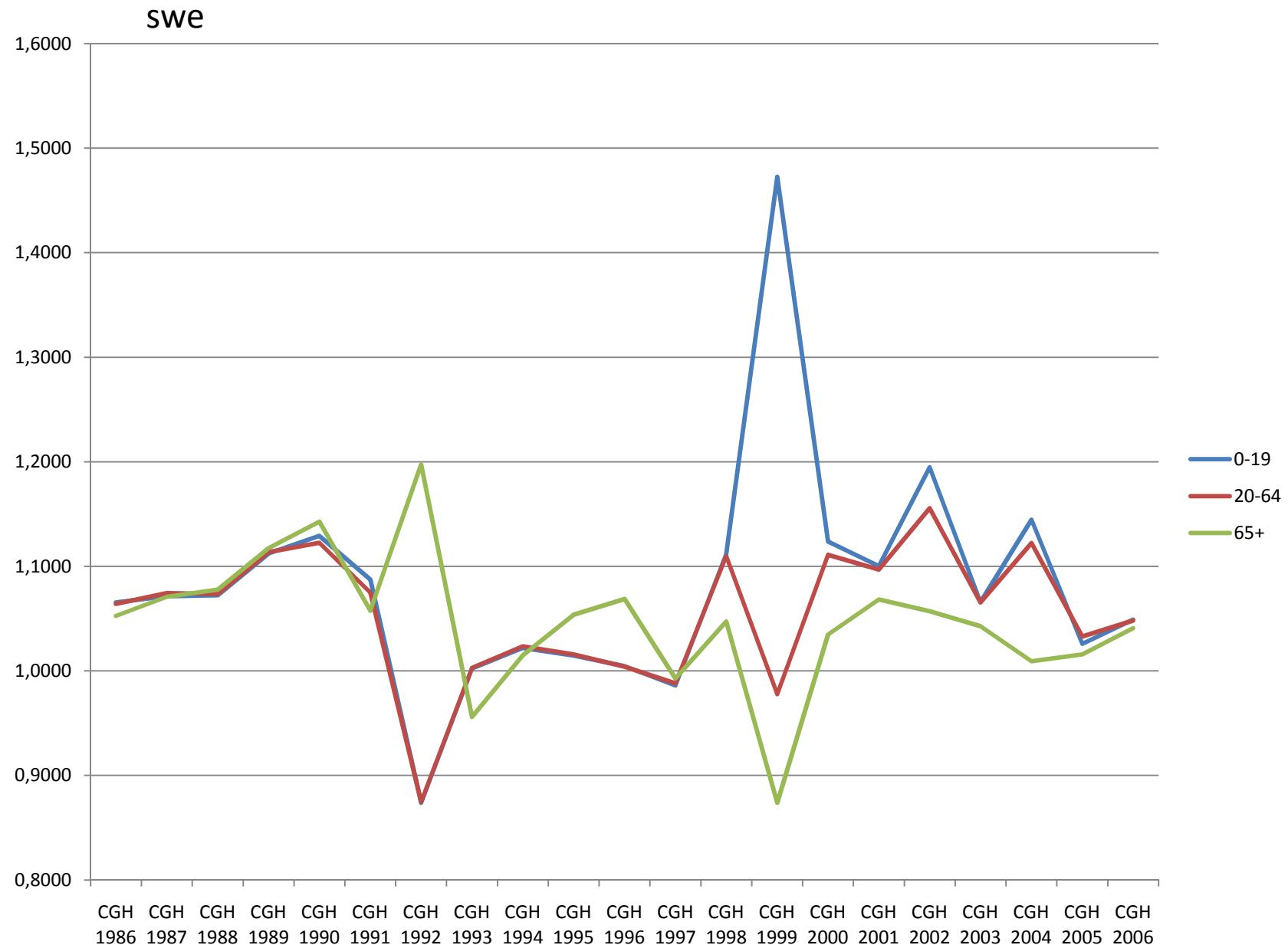
Source: Statistics Finland and Sweden

## Sweden nominal gross growth for different age groups









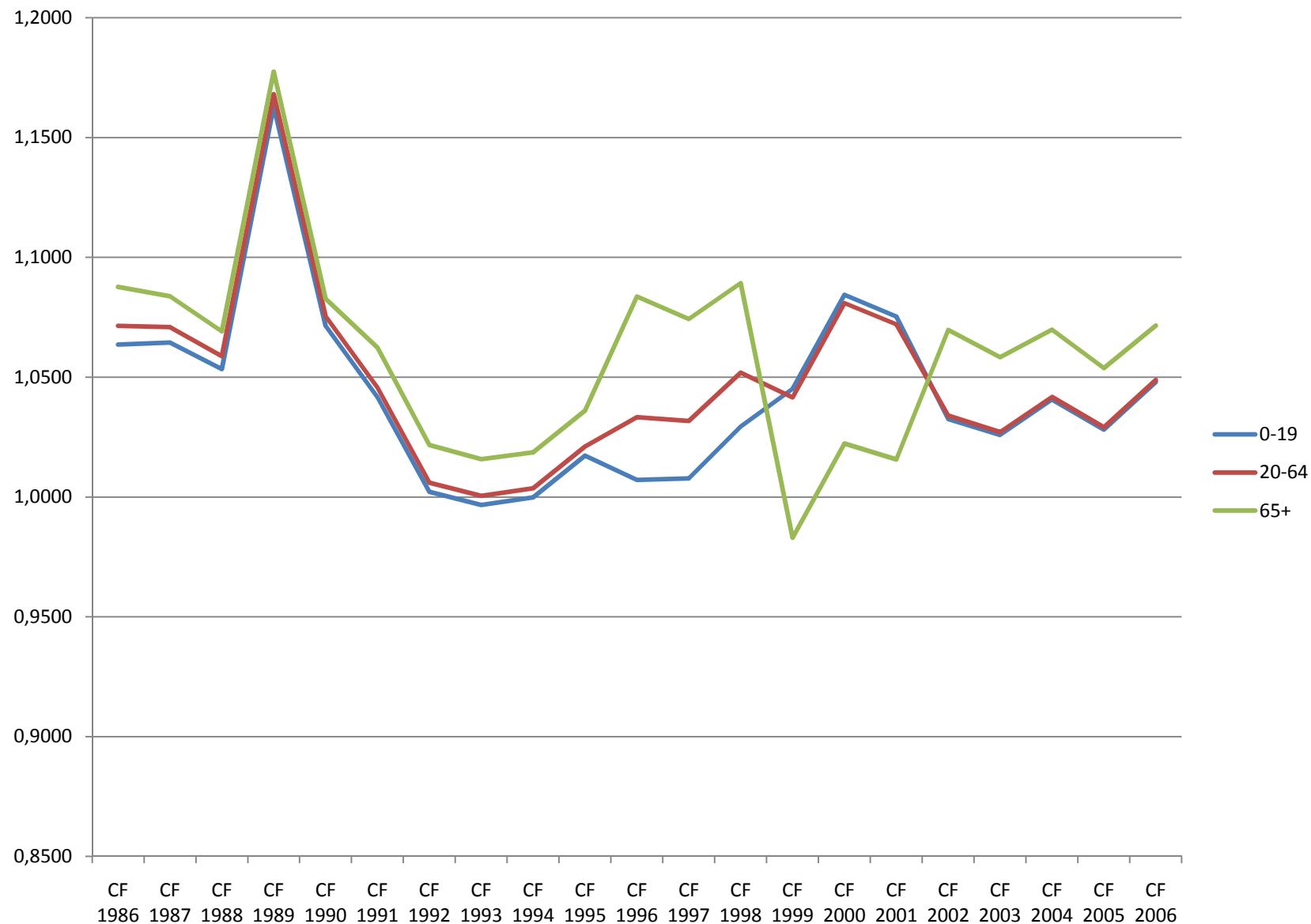
**FIN**



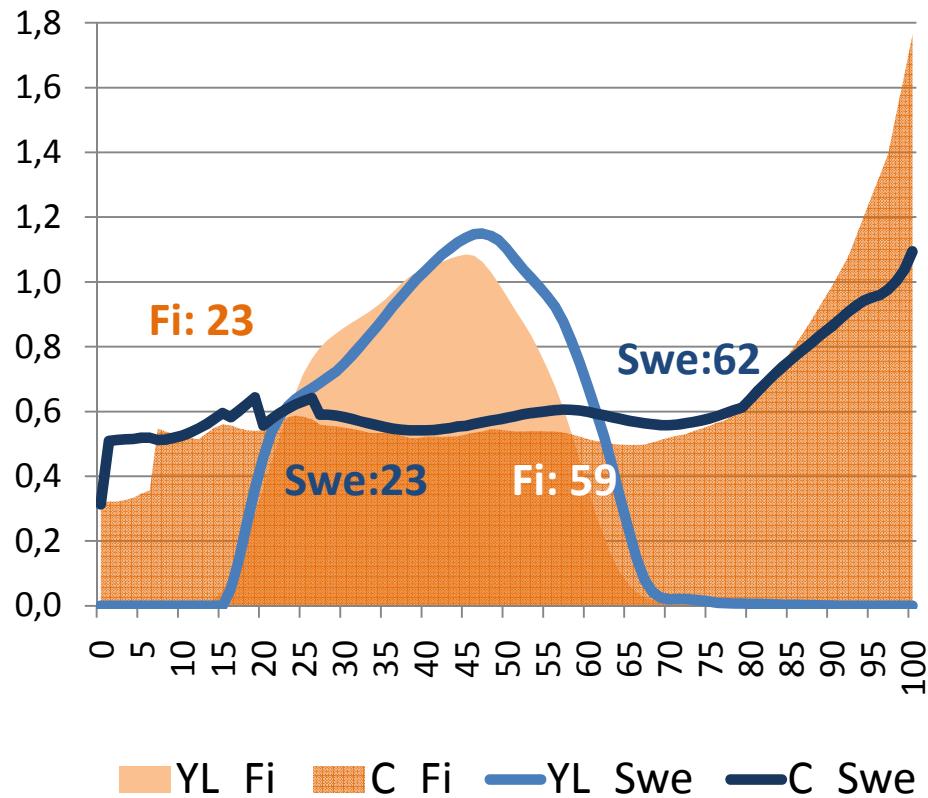
**FIN**



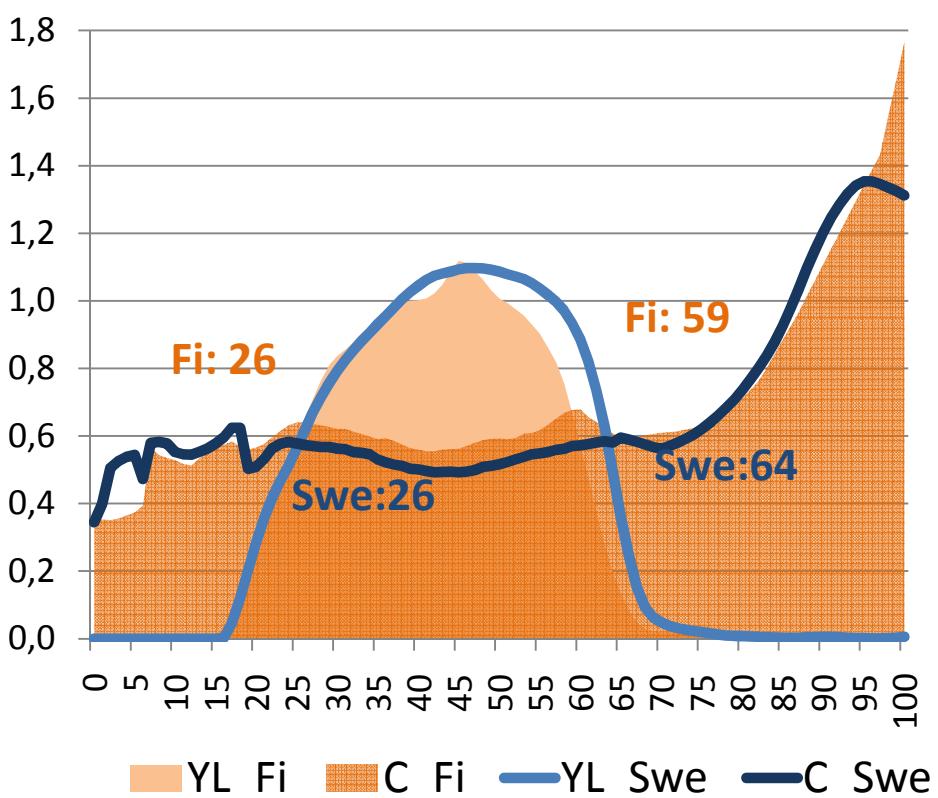
# FIN



# LCD per capita in Finland and Sweden

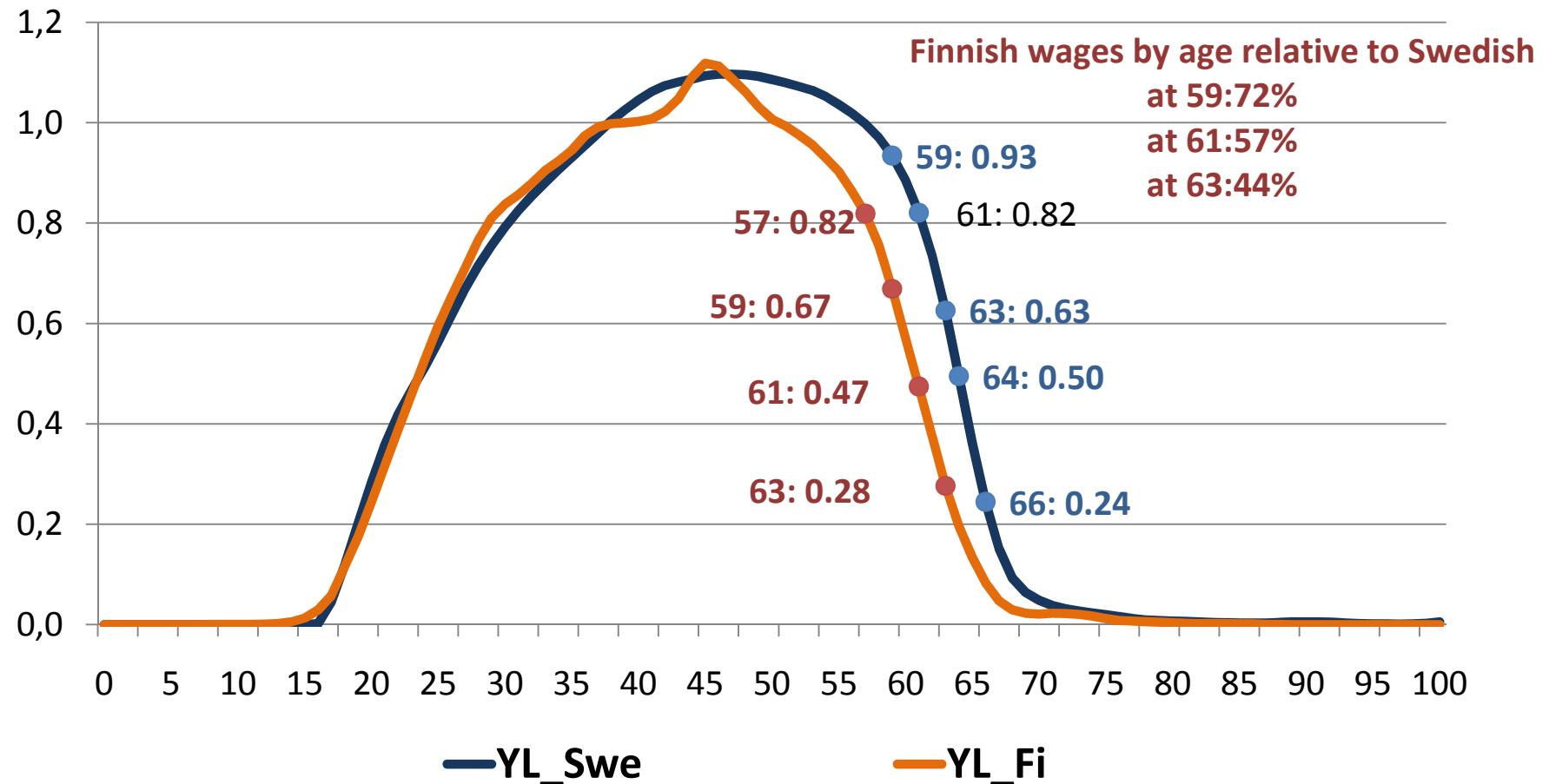


1990

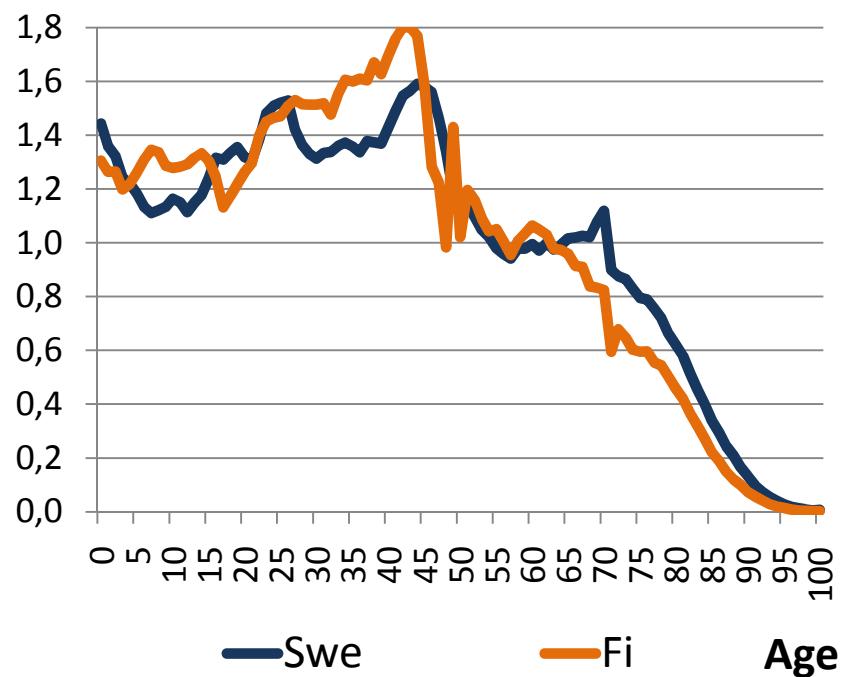


2006

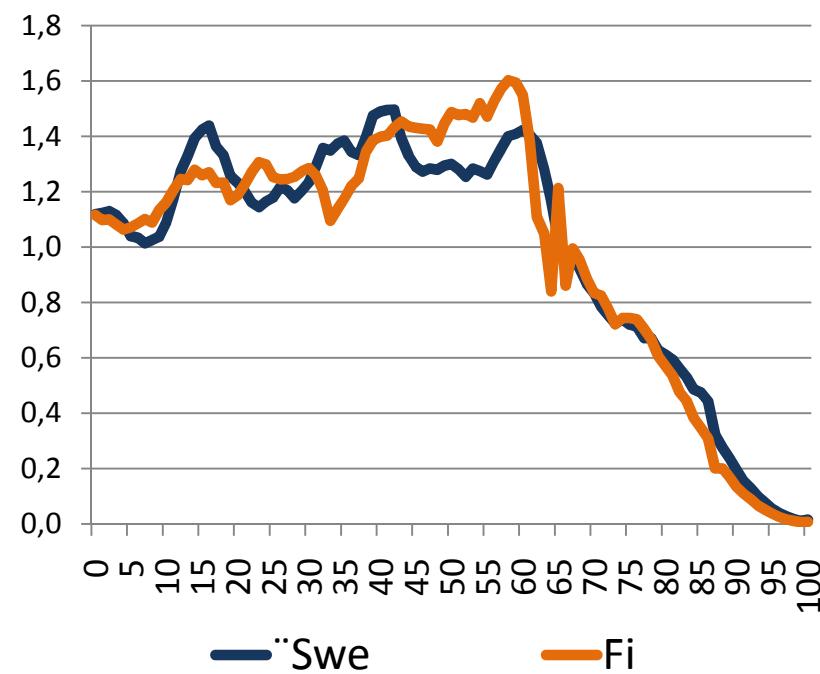
# Wage patterns by Age Fi vs. Swe 2006



# Population by Age: Finland and Sweden

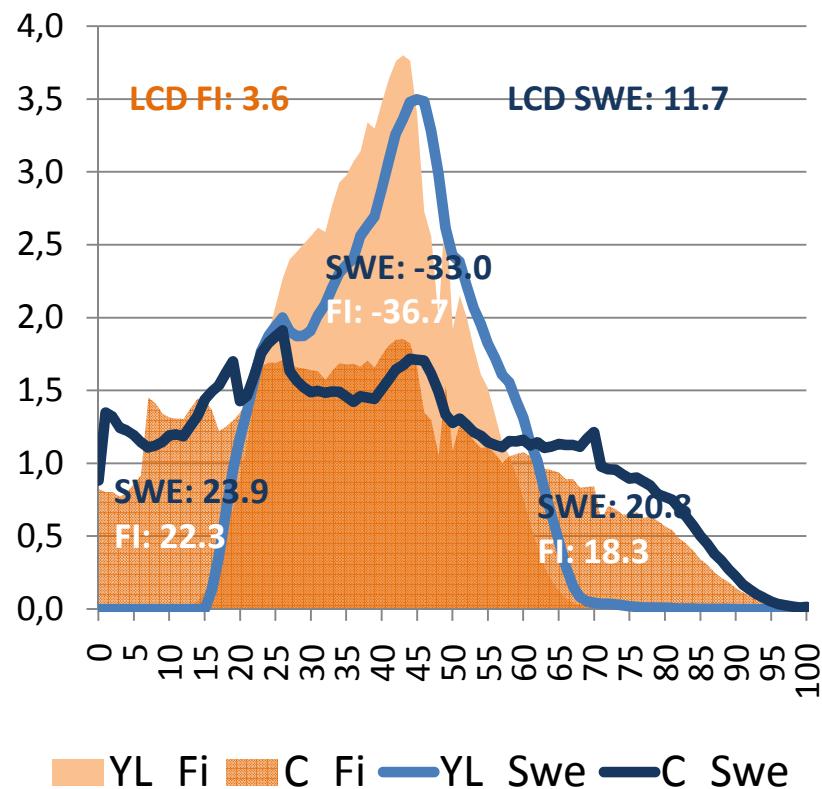


1990

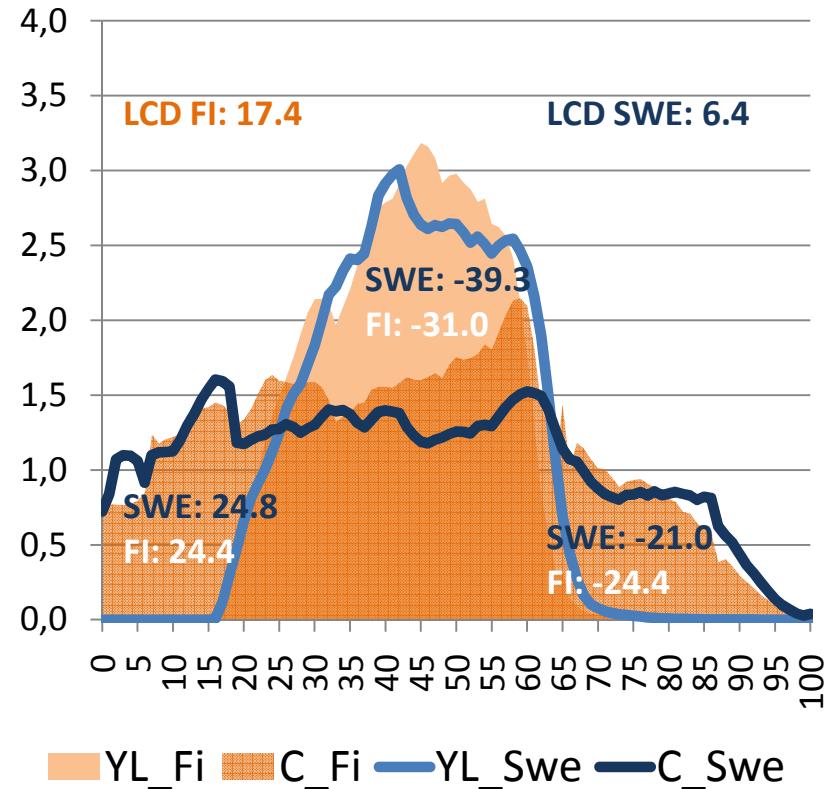


2006

# LCD by Age in Finland and Sweden

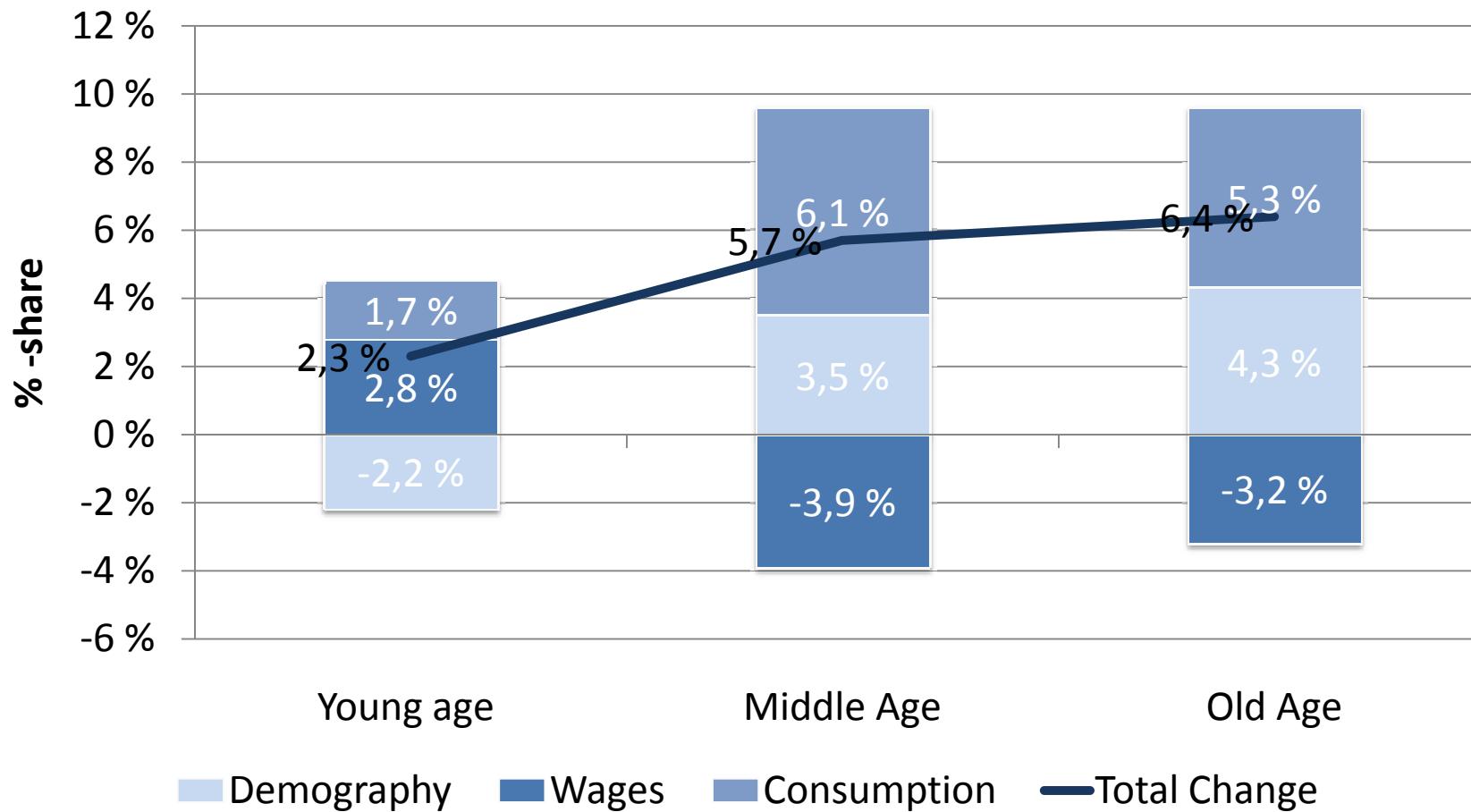


1990

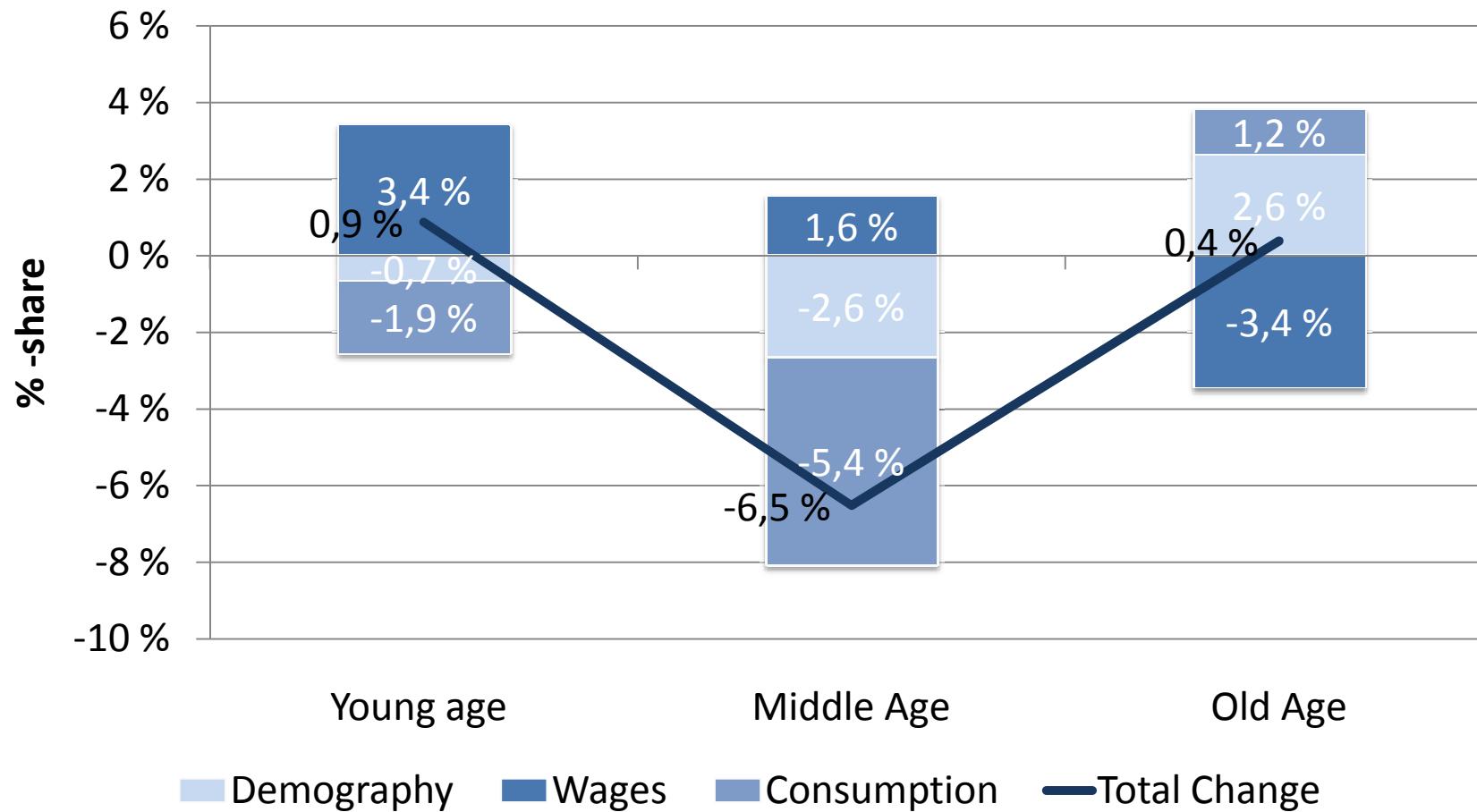


2006

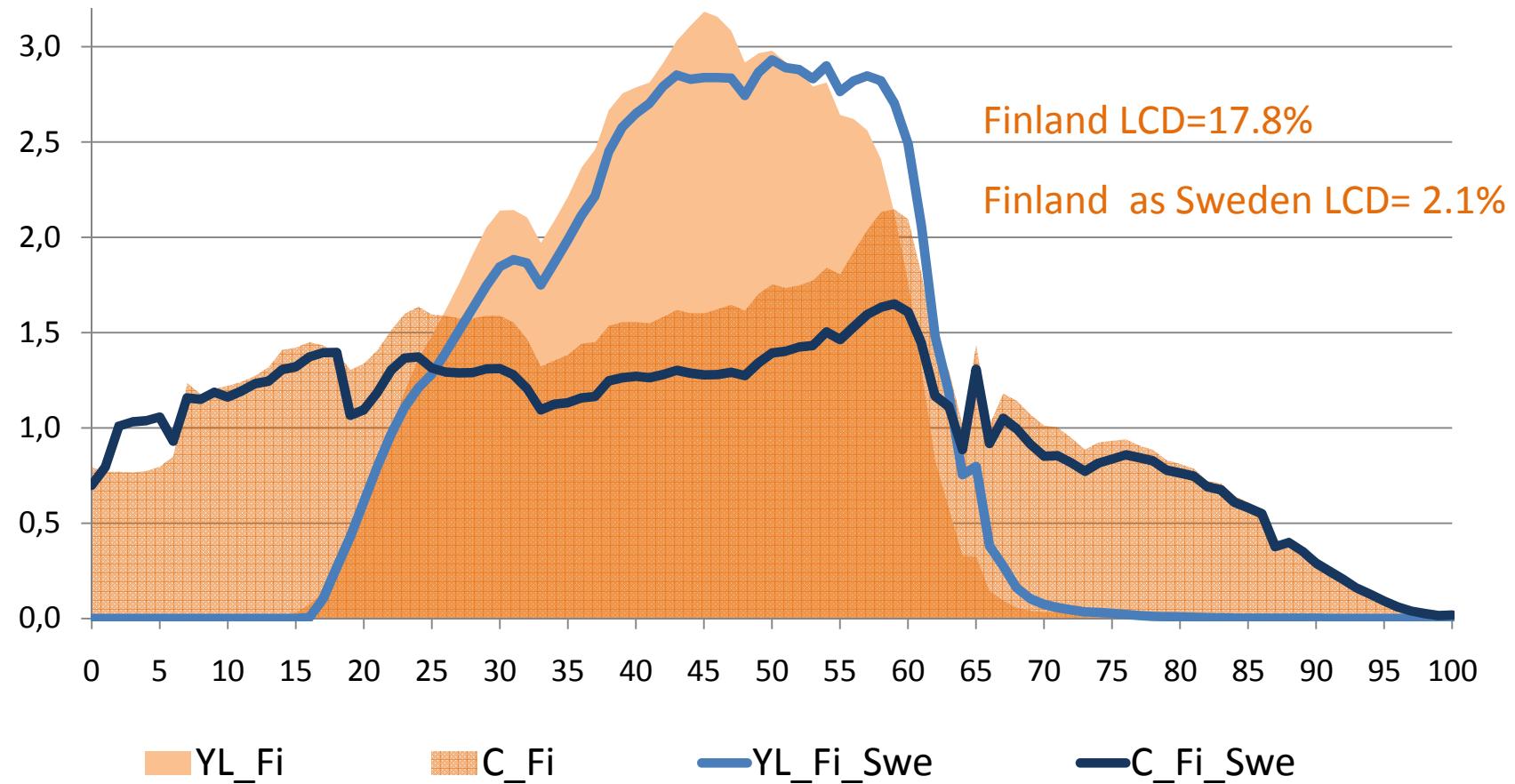
# Contributions of consumption, labor markets and demography to the change in the relative LCD in Finland $\square(\text{LCD}/\text{YL}) = 14.4$



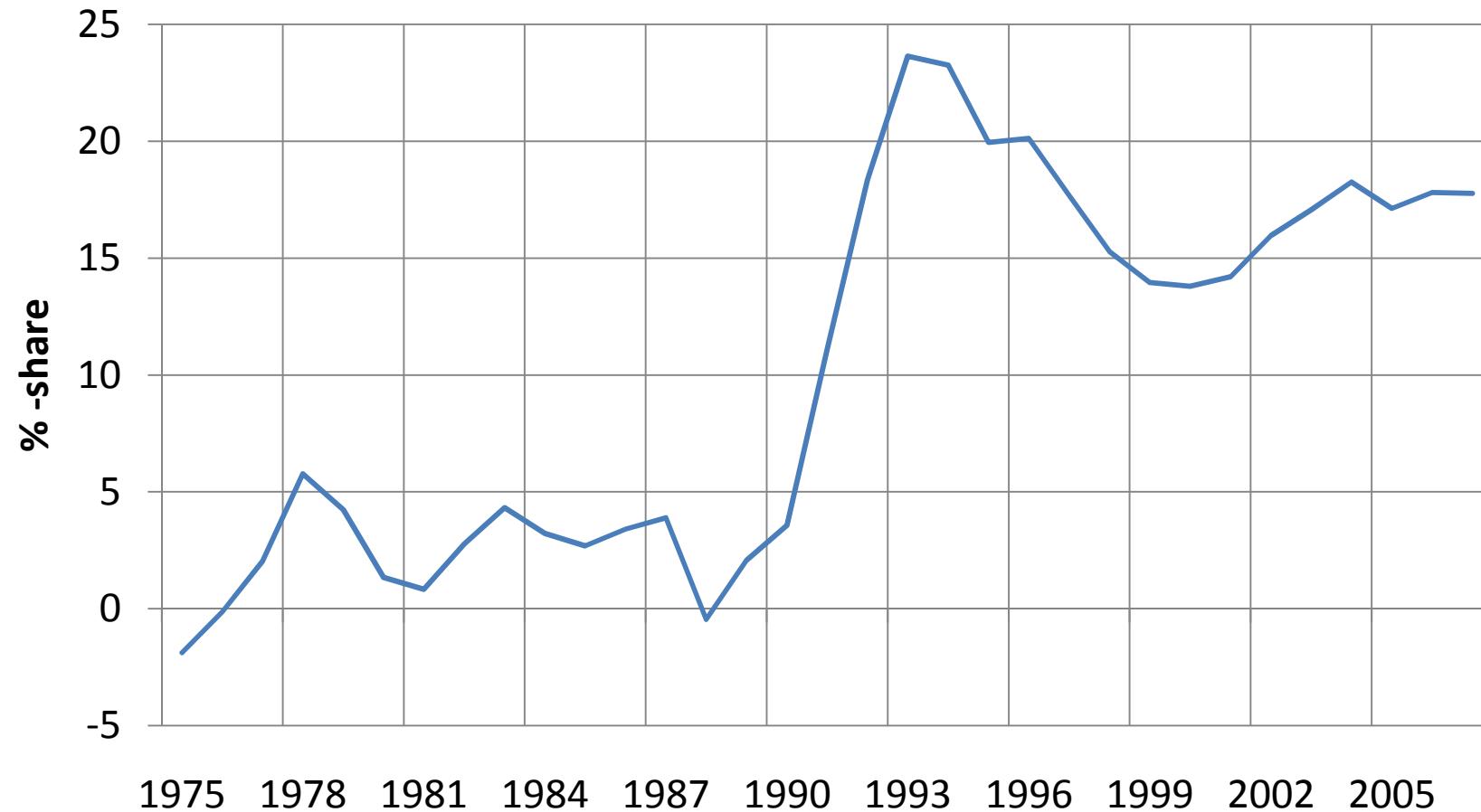
# Contributions of consumption, labor markets and demography to the change in the relative LCD in Sweden $\square (\text{LCD}/\text{YL}) = -5.3$



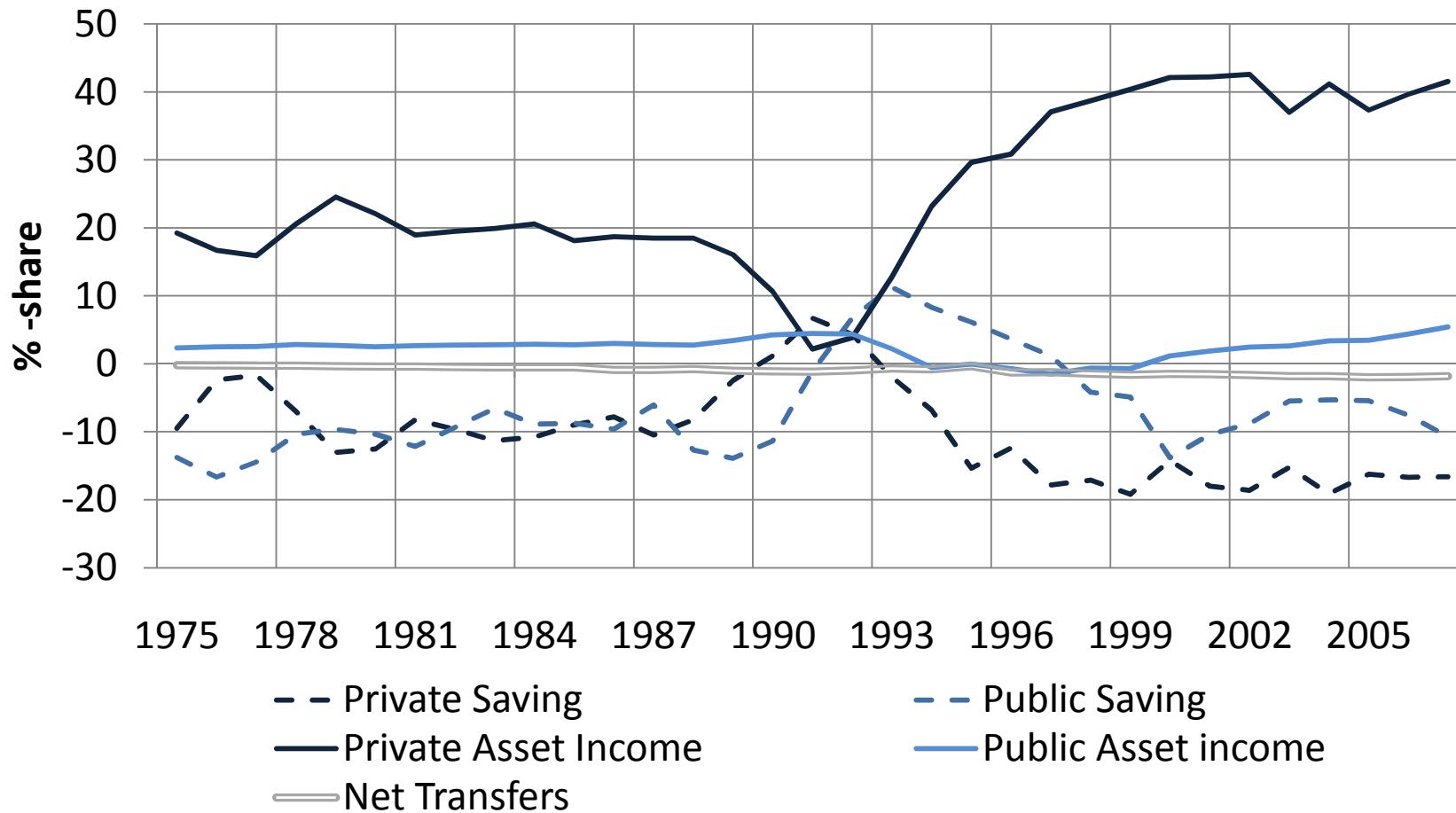
# Finland as Sweden



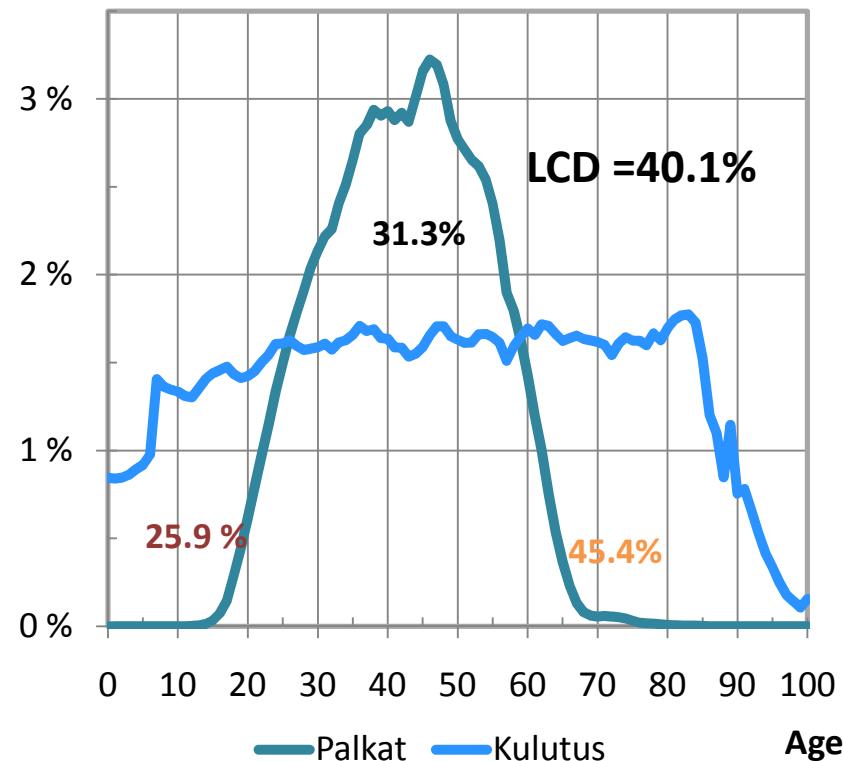
# **Life-cycle deficit as a percentage of labour income, 1975 - 2007.**



# Aggregate asset reallocation components of the financing of the LCD as a percentage of labor income, 1975 - 2007.

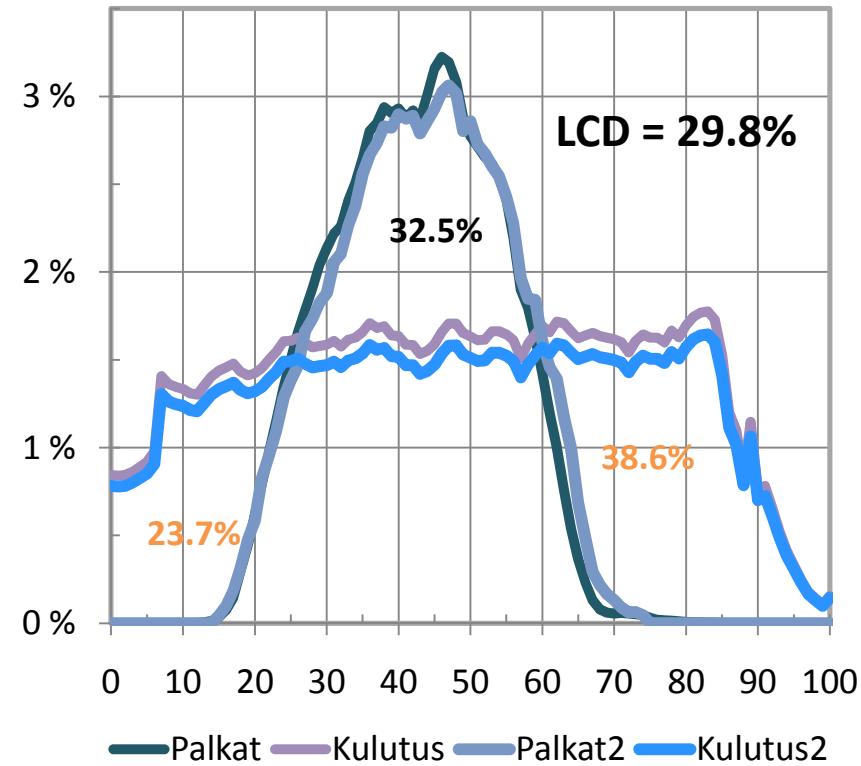


# Projections to the future



**LCD 2030: population 2030  
combined with profiles 2006**

Source: Statistics Finland; own calculations



**LCD 2030: former plus 2 years longer  
careers**

# Sustainability: do we save enough – a simple attempt to answer

- Let's denote aggregates
  - $g$  = growth rate of labour income
  - $r$  = asset income per net assets in the beginning of the period
  - $a$  = asset income per labour income
  - $d$  = LCD per labour income
- Then
  - Net assets in the beginning per labour income =  $a/r$
  - To keep net assets per labour income constant: growth rate of net assets per labour income should be  $g*a/r = a*g/r$
  - An identity:  $a = a*g/r + a(1-g/r)$  [1]
  - The first term is saving and consequently the second could be used to finance consumption
- In practice and examples
  - $a$ ,  $g$  and  $r$  are naturally observed only afterwards
  - If  $a = 0.4$ ,  $g = 3.5$  and  $r = 6$ , then "sustainable" level to finance consumption =  $0.4*(1 - 3.5/6) = 0.17$ , i.e. the value in Finland in 2006
  - If  $d = 0.4$ , then  $a = 0.95$  (if asset income is the only aggregate source of LCD finance)

# Regimes

- Identity [1]: assume  $a>0$
- $r>g>0$  or  $r<g<0$  "normal: save part of asset income"
- $r=g$  "save all asset income"
- $g>r>0$  "save all asset income plus part of labour income"
- $g=0$  "do not save or dissave"
- $g<0<r$  or  $r<0<g$  "dissave"