

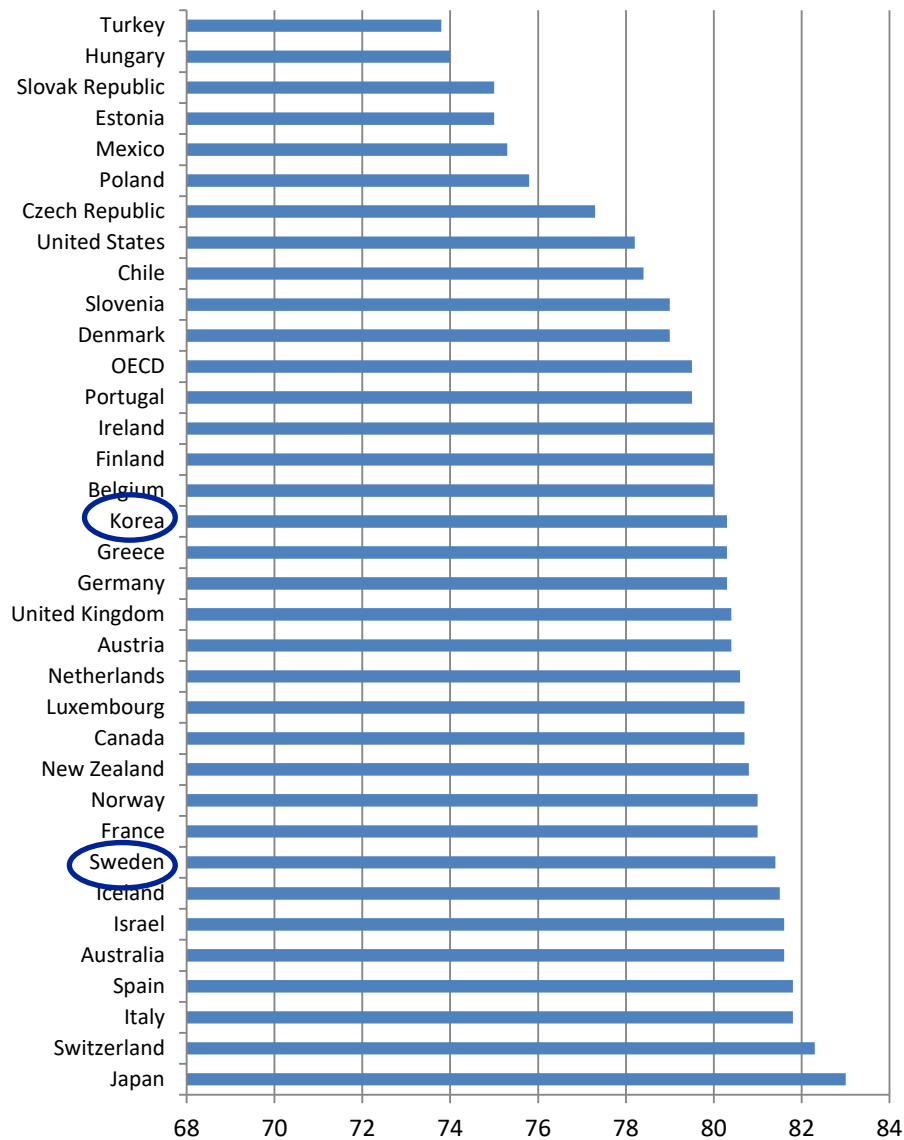
Live Longer, Work Longer

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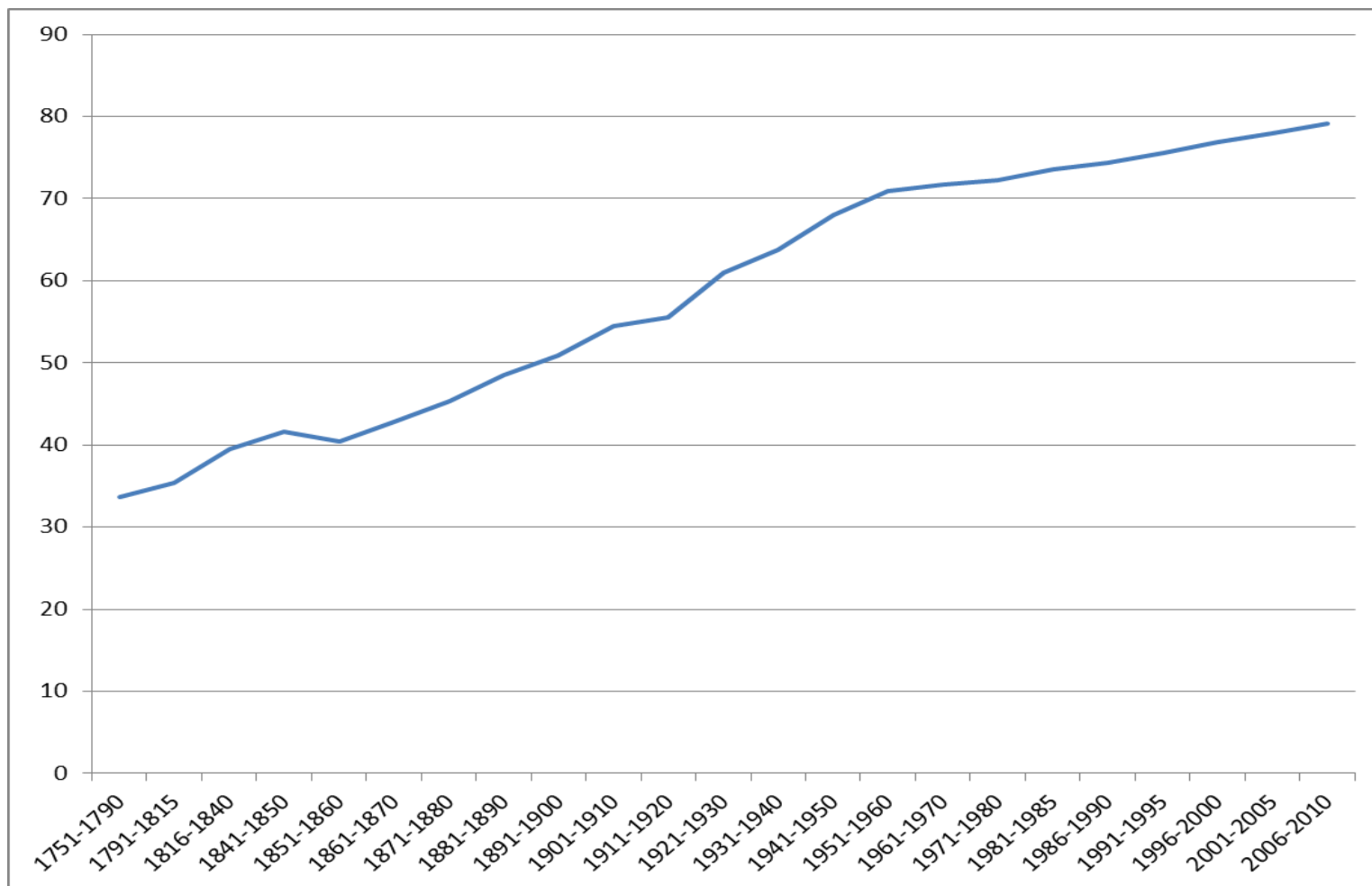
Average Life Expectancy at Birth in OECD Countries.



Source: OECD Health Data 2011



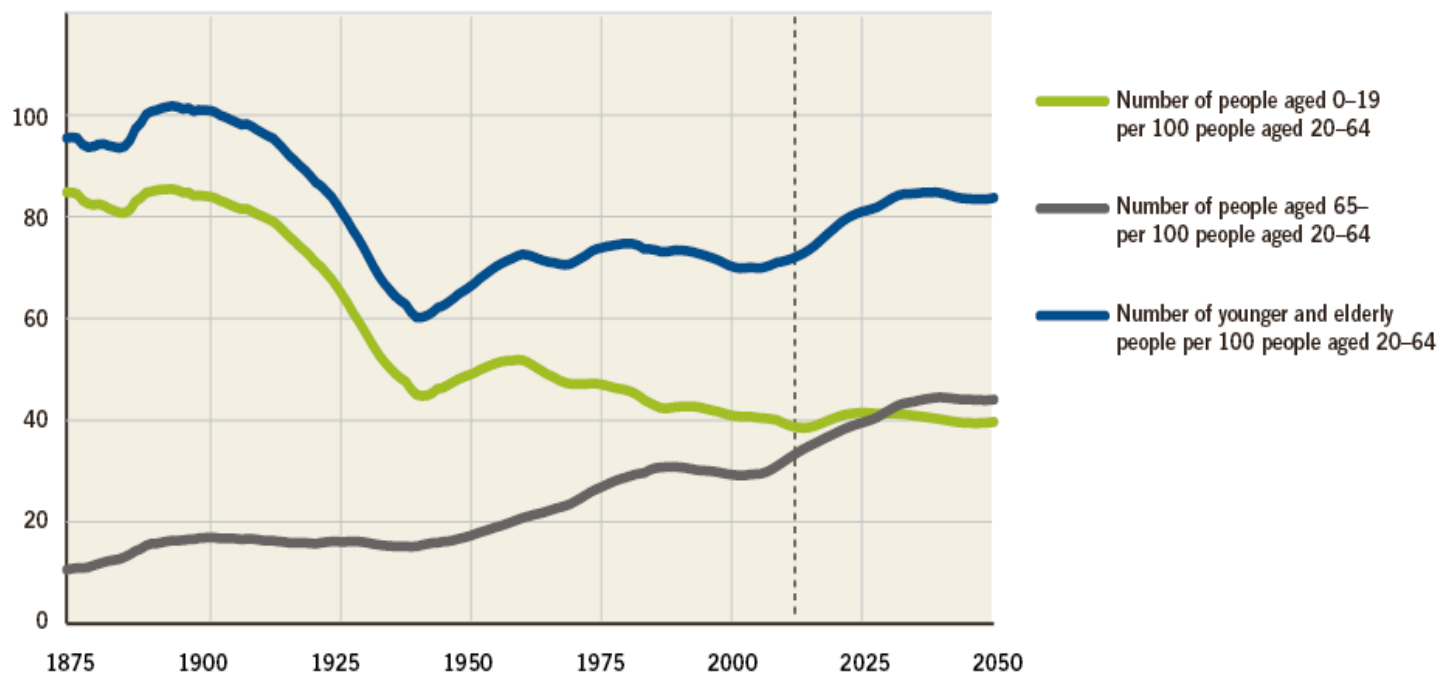
Average life expectancy at birth in Sweden 1751 - 2012



Source: Statistics Sweden



Demographic Dependency ratio



Number of people aged 0–19 and 65+ per 100 people of working age (20–64).

The dependency ratio shows the sum of these two groups in relation to the working population. The broken vertical line indicates the changeover from actual data to projections.

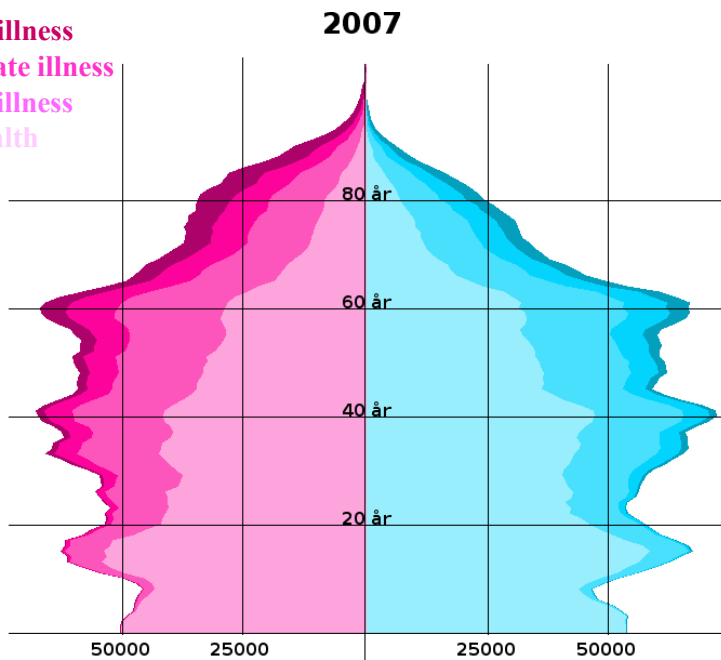
Source: *Statistics Sweden 2010.*

Simulated Long-Term Effects

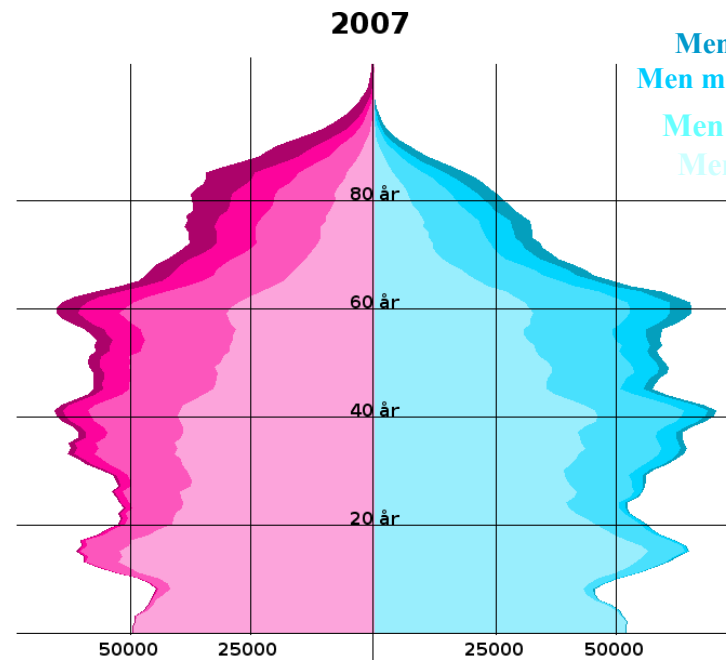
- We simulate life incomes up to 2060 with the dynamic microsimulation model SESIM
 - More information on www.sesim.org
- Representative sample of the population including 300 000 individuals with various characteristics
- We model an alternative scenario where individuals' working life grows with longevity (only those who work are affected).

Simulated Population composition

Compressed illness

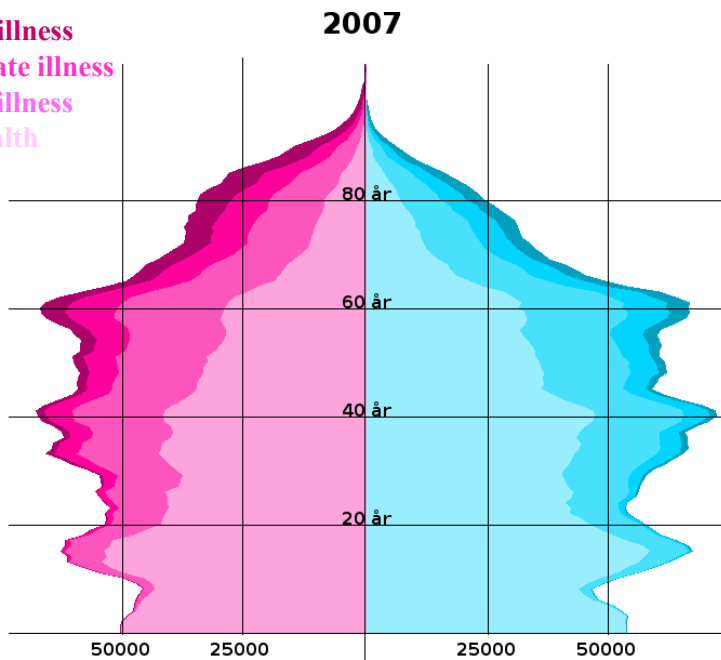


Lancet

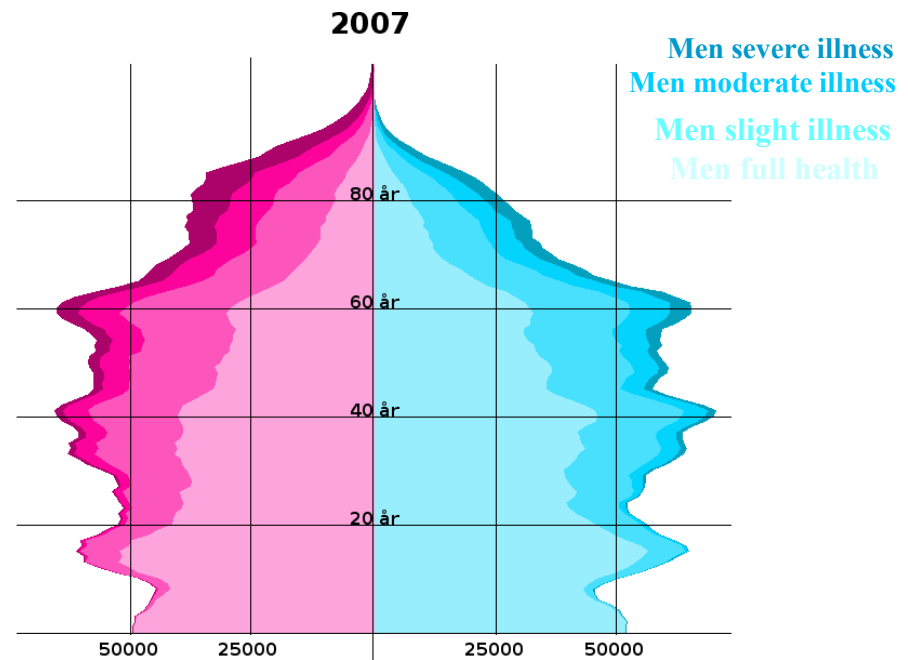


Simulated Population composition

Compressed illness

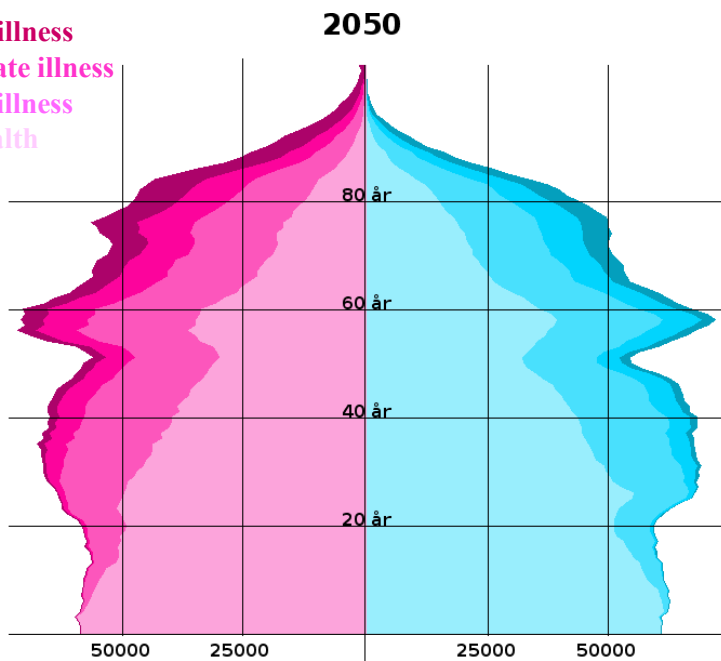


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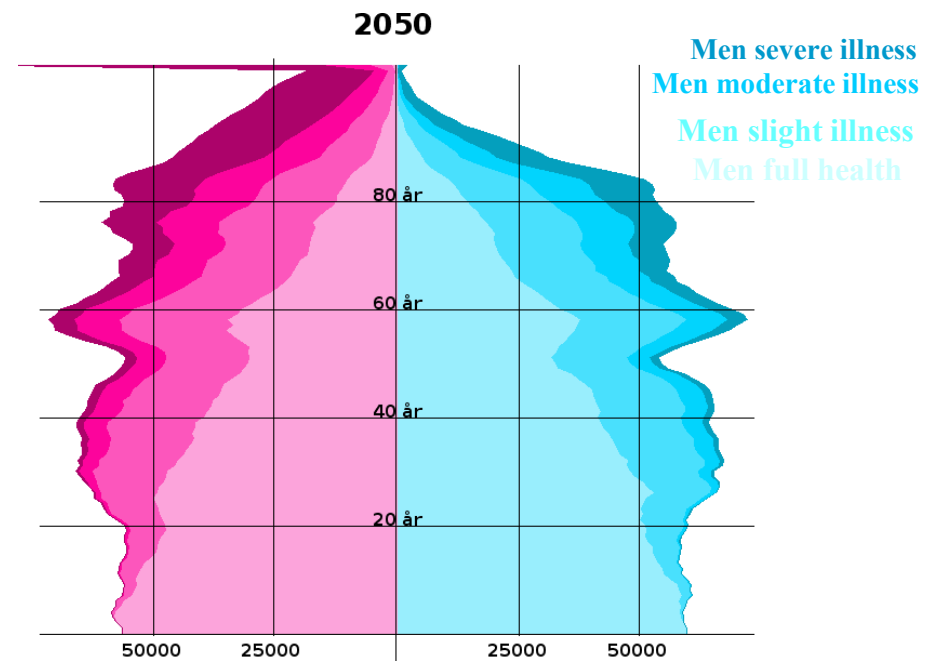


Simulated Population composition

Compressed illness



Lancet



Result

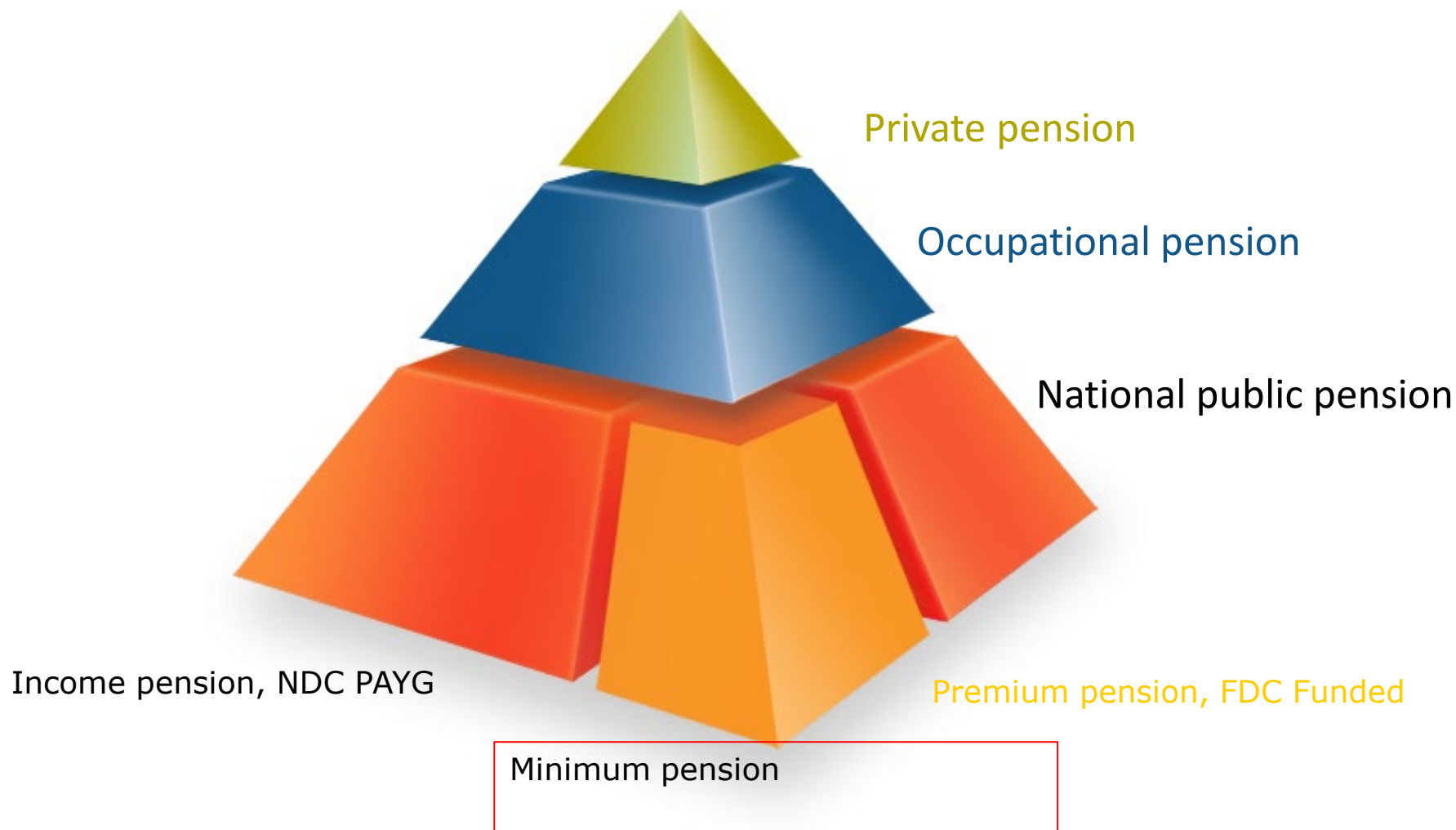
- By 2050 cost are expected to:
- Elderly care will increase by 70%
- Health care increase by 30%
- Increased ambition/technology level 80%

How Sweden has responded to an Ageing population so far

- Consequences of Ageing:
 - Strain on public finances
 - Lower pension levels
- Pension Reform (2003) linked benefit to life expectancy
 - However retirement age has not increased
- Commission appointed to make proposals for a longer working life



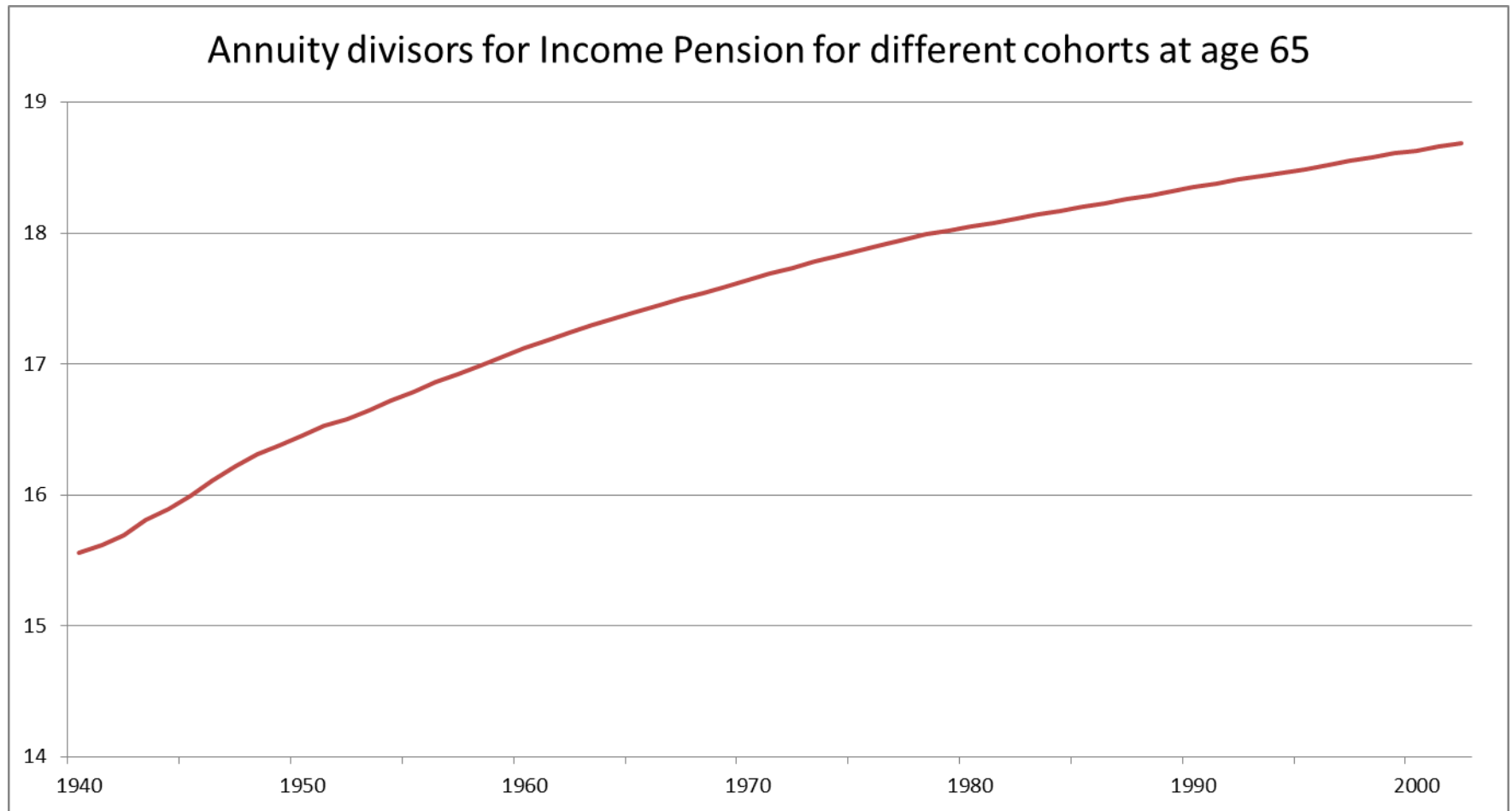
The Swedish pension system



Basic principles of the Public Pension System

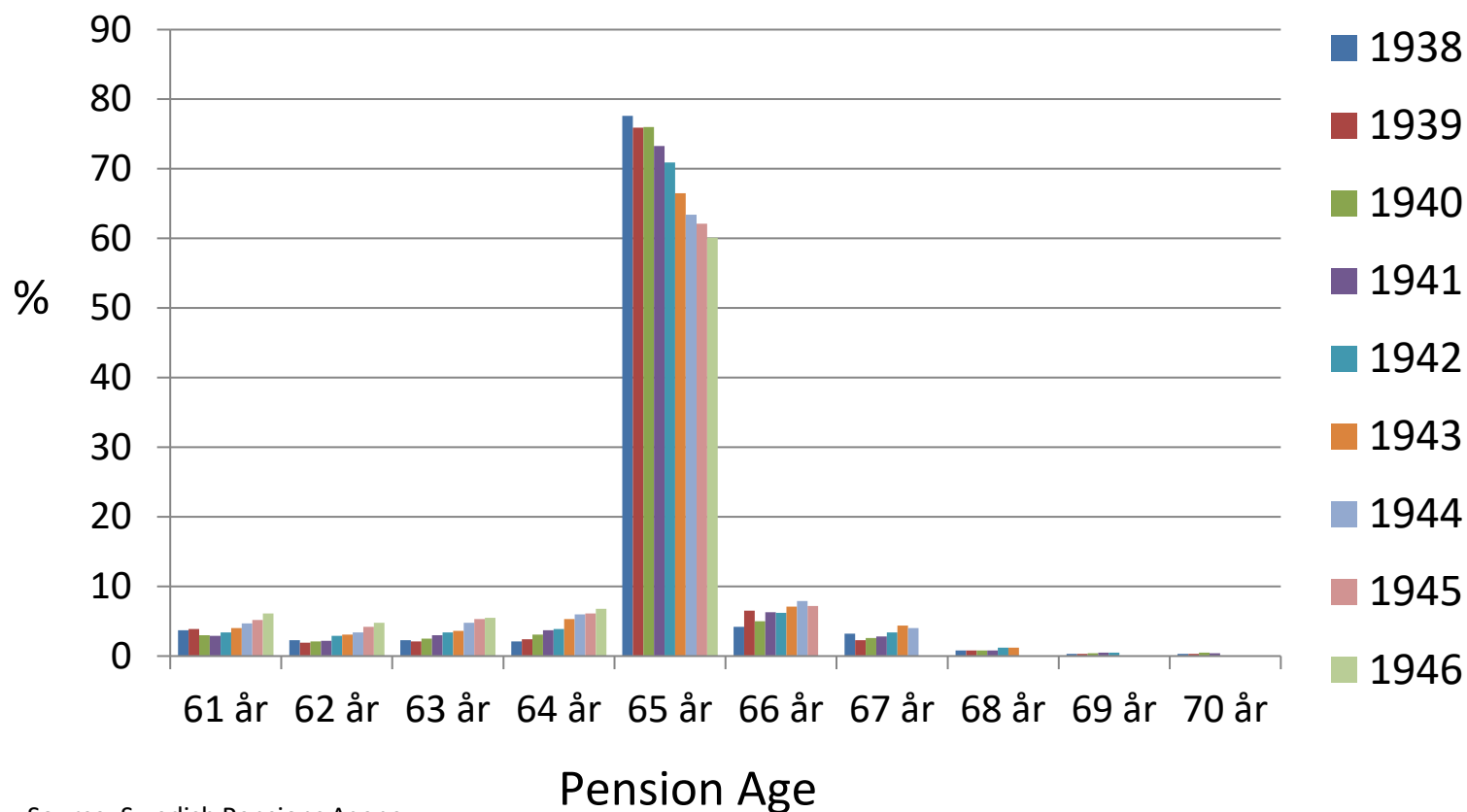
- Defined Contribution - Benefits accrues in proportion to lifelong earnings.
- Pension corresponds to paid-in contributions.
- Pension calculated on basis of unisex annuity divisors at age of retirement.
- Possible to retire from 61 to 67+
- A means tested minimum pension from age 65.
- Contributions 18.5% of taxable earnings

Projected Annuity Divisors at 65



Source: Statistics Sweden and Swedish Pensions Agency

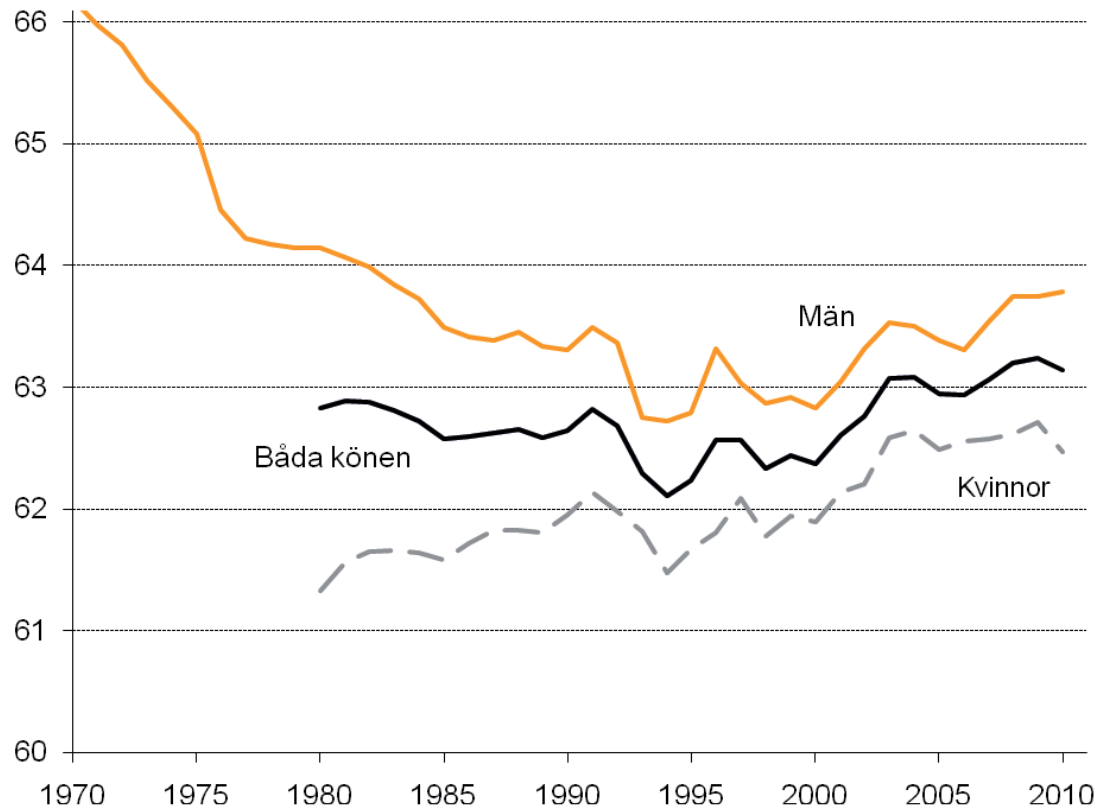
Distribution of Retirement Age by Cohort



Source: Swedish Pensions Agency



Average exit age from labour market





Aging Commission proposals 2013

- Introduces a *recommended retirement age* which follows the development of average life expectancy → ensures adequacy of pensions
- Several age limits in the social insurance system are proposed to be linked to this *recommended retirement age*, e.g.:
 - Age limit for minimum pension, sickness and unemployment benefits from 65 to 66 in 2019, 67 in 2022
 - Age limit for public income pension from 61 to 62 in 2015 and to 63 in 2019
 - Increase of the upper age limit in the Employment Protection Act from 67 to 69 in 2016
 - Increase of the lower age limit for tax deductible occupational and private pensions from 55 to 62 in 2017.
- Improve working conditions for the elderly

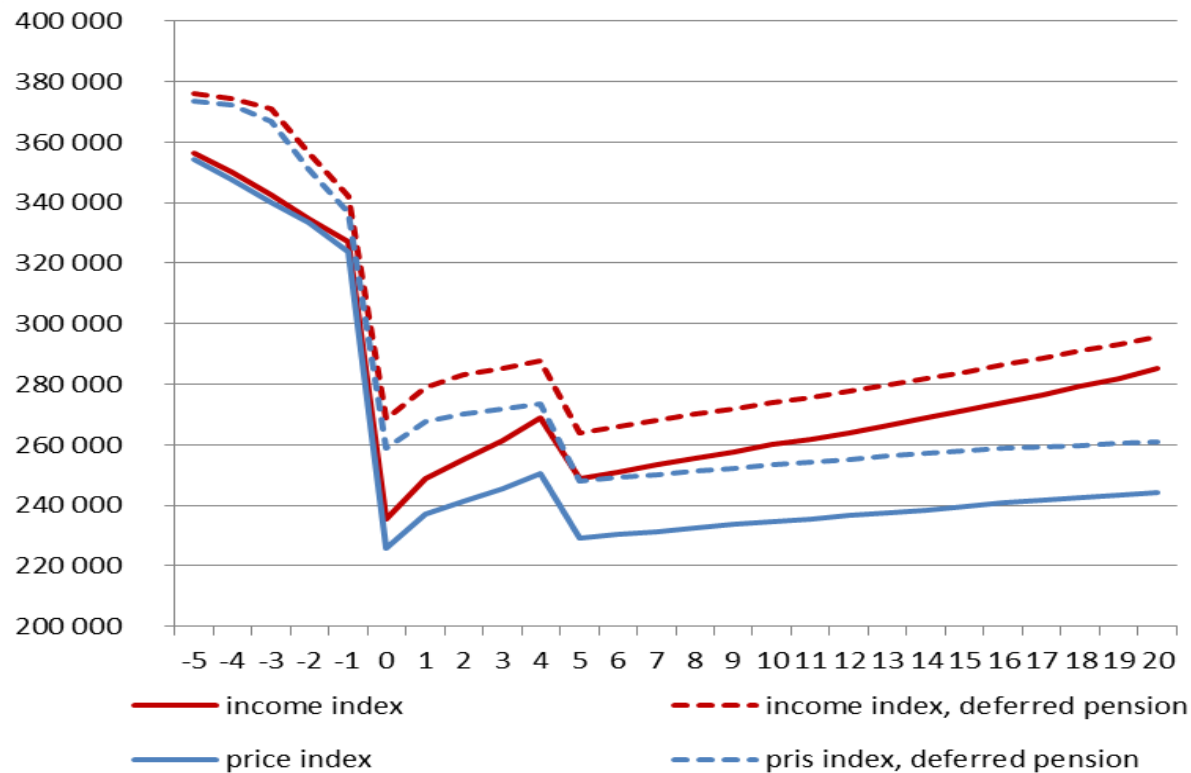


Scenario with deferred pension age

- The average pension age is shifted in line with the increase in life expectancy.
- Also a slight increase in the share of working people until the age of 65.
- Those who already work at 65 work a bit longer.
- Some individuals does not have the ability to work; about 35 % of each cohort are not affected.
- No changes in the statutory age limits within the pensions scheme (e.g. recommended pension age) or other tax- benefits systems

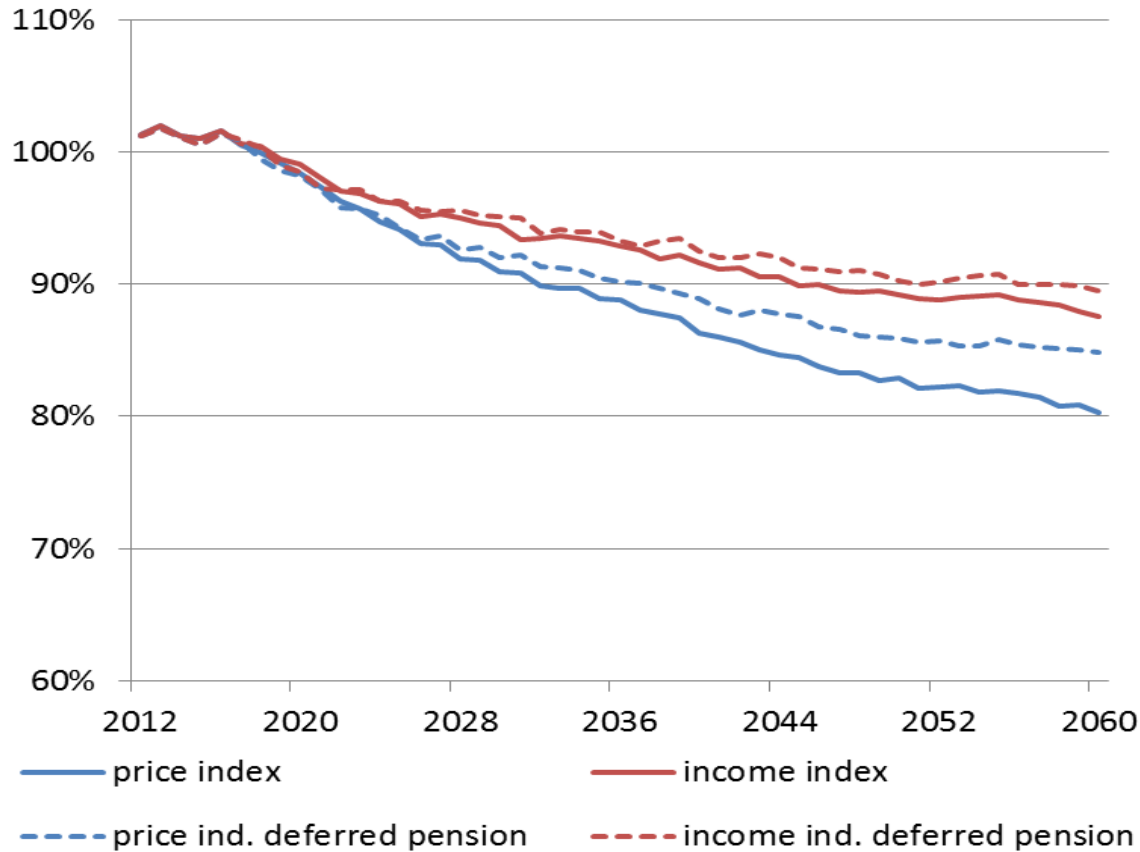
Deferred pension age means higher lifelong income

Average individual disposable income, before and after pension withdrawal, old-age pensioners born from 1970 to 1979



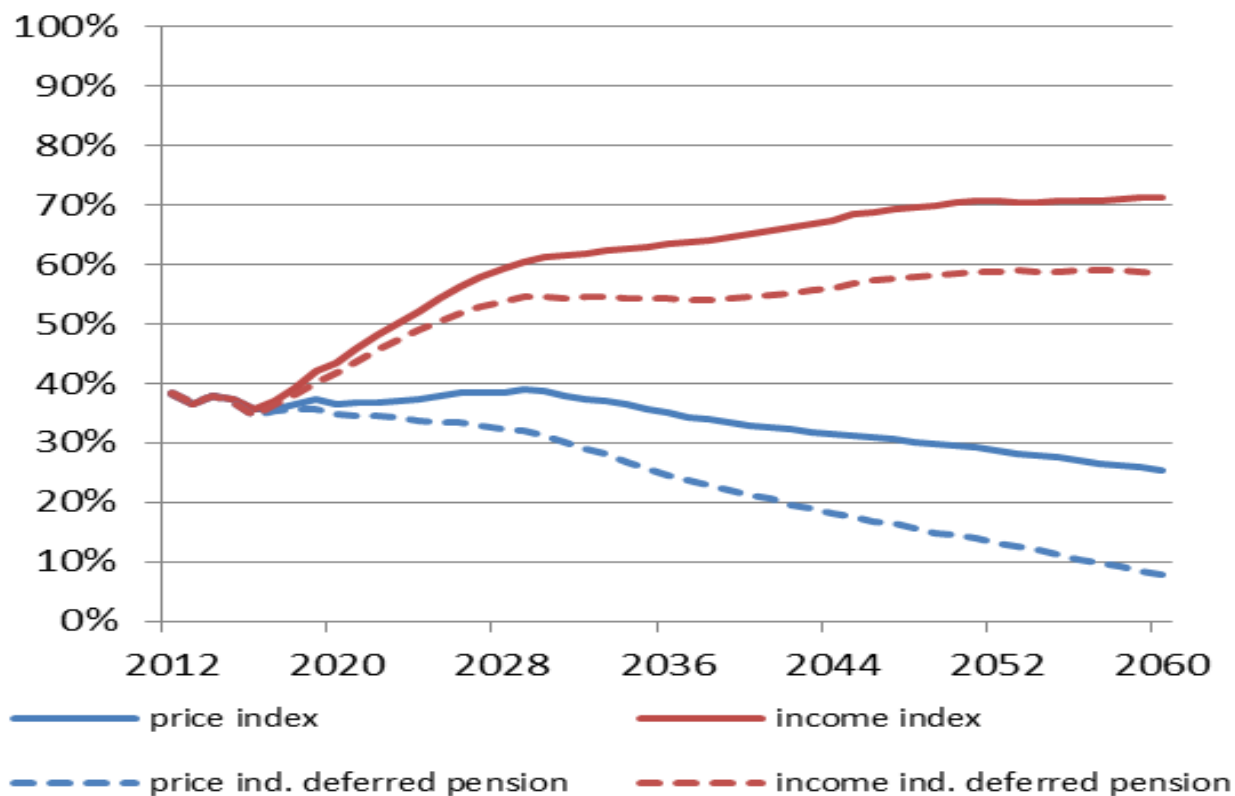
Pension benefits will increase slower than earnings - even with a deferred pension

Average relative equivalised household income, old-age pensioners ages 65 to 79 years



Pension deferral decreases the share of old-age pensioners with minimum pension

Share of old-age pensioners with minimum pension age group 65 to 79 years, price and income indexation of basic security, from 2012 to 2060



Conclusions

- Working life must grow in line with longevity in order to reduce the drop in pensioners' relative income standards.
- The aging challenge has been partially met in Sweden with a pension reform. However that is not enough to ensure long term adequacy.
- Retirement age has not increased in line with the expectations → Aging Commission proposals in 2013

Conclusions II.

- The effect of longer working life on public finances is however not straightforward → depends on complex interactions with the tax and benefits system, demand for and standard of healthcare....
- Our simulations take account of such interactions and show total effects of working longer on income distribution and public finances.

Thank you!

<http://www.government.se/futureneedforcare>



Bonus material

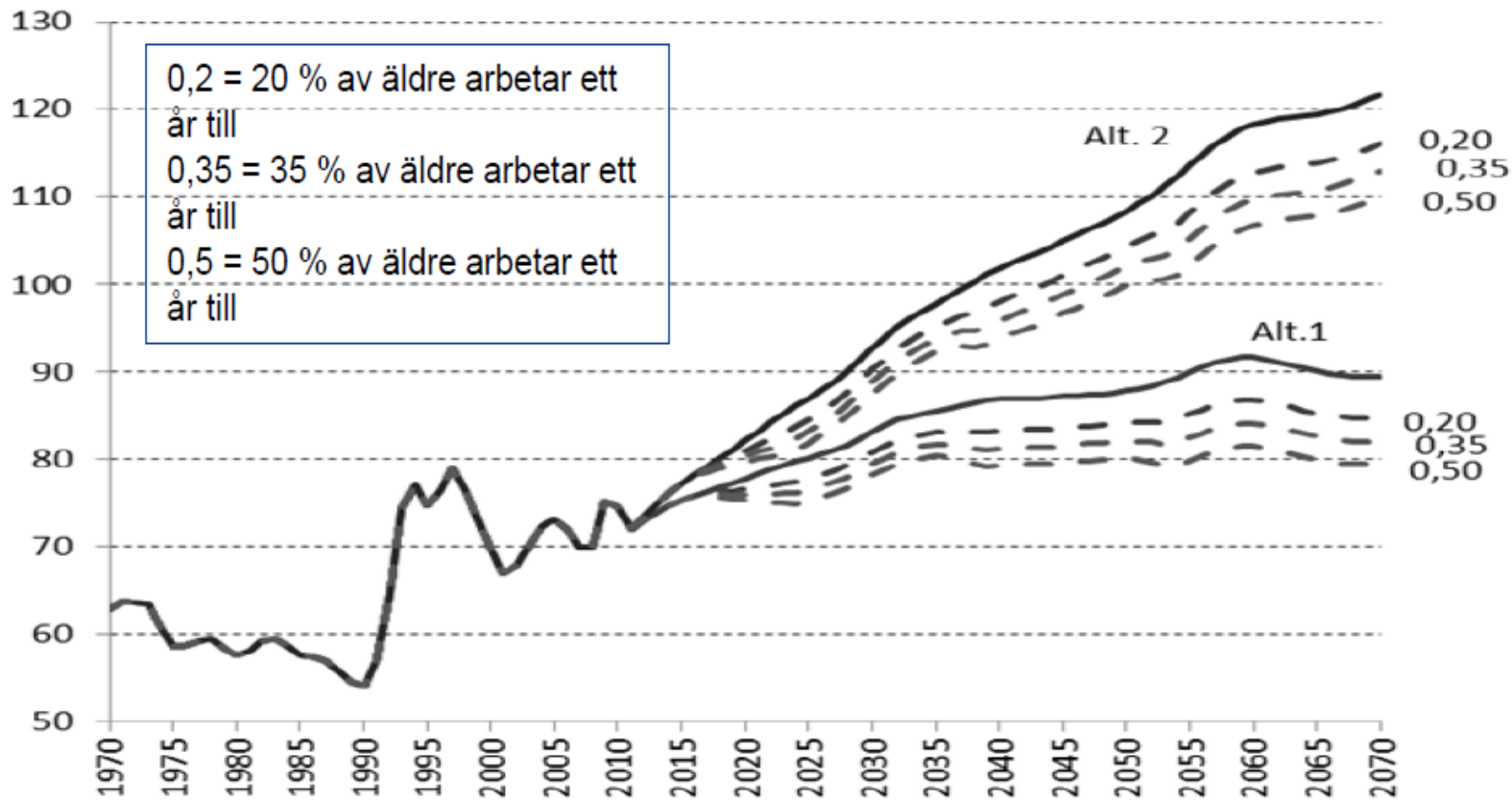


Necessary to prolong working life to maintain replacement rate

Birth cohort born	..reaches 65 in	Life expectancy at 65	Retirement age required	Time spent as retired *	...compared to birth cohort 1930
1930	1995	82 yr 5 mo	65 yr	17 yr 5 mo	0
1940	2005	83 yr 7 mo	65 yr 9 mo	18 yr	+7 mo
1950	2015	84 yr 10 mo	66 yr 7 mo	18 yr 6 mo	+1 yr 1 mo
1960	2025	85 yr 7 mo	67 yr 2 mo	18 yr 10 mo	+1 yr 5 mo
1970	2035	86 yr 3 mo	67 yr 7 mo	19 yr 1 mo	+1 yr 8 mo
1980	2045	86 yr 10 mo	68 yr	19 yr 3 mo	+1 yr 10m o
1990	2055	87 yr 1 mo	68 yr 2 mo	19 yr 5 mo	+2 yr

Source: Swedish Social Insurance Agency, *Orange Report – Pension system annual report 2008*

ÖKAT ARBETSUTBUD MINSKAR FÖRSÖRJNINGSBÖRDAN



The dynamic microsimulation model SESIM

- Representative sample of the population including 300 000 individuals with various characteristics and circumstances.
- Using this society in miniature, the life paths of the individuals from year to year is simulated, up to 2050.
- Analyses are performed for women and men of different ages, with varying health and levels of education.
- The income, health care need etc of the individuals is simulated on the basis of background conditions (with estimated regression models) and updated annually
- Some characteristics are only updated when a change occurs, for example on graduating, retiring or marrying.
- The probability of changes has been estimated from register data and takes the individuals' other characteristics and their life histories into account.