

# **Dynamically Adjusted Pension Age**

## **Coping with Age Inflation by Lifetime Indexing in Selected Scandinavian and Continental EU Countries**

**Prof. Dr. Bernd Marin**



Europäisches Bureau  
für Politikberatung  
und Sozialforschung  
Wien

European Bureau  
for Policy Consulting  
and Social Research  
Vienna

Bureau Européen  
de Consultation Politique  
et de Recherche Sociale  
Vienne

**Population Division of UNDESA, IIASA, ESCAP and Chulalongkorn  
University expert group meeting on “Measuring Population Ageing:  
Bridging Research and Policy”, Bangkok Thailand, 25/26 February 2019**

# Queries Raised by the Expert Group Meeting

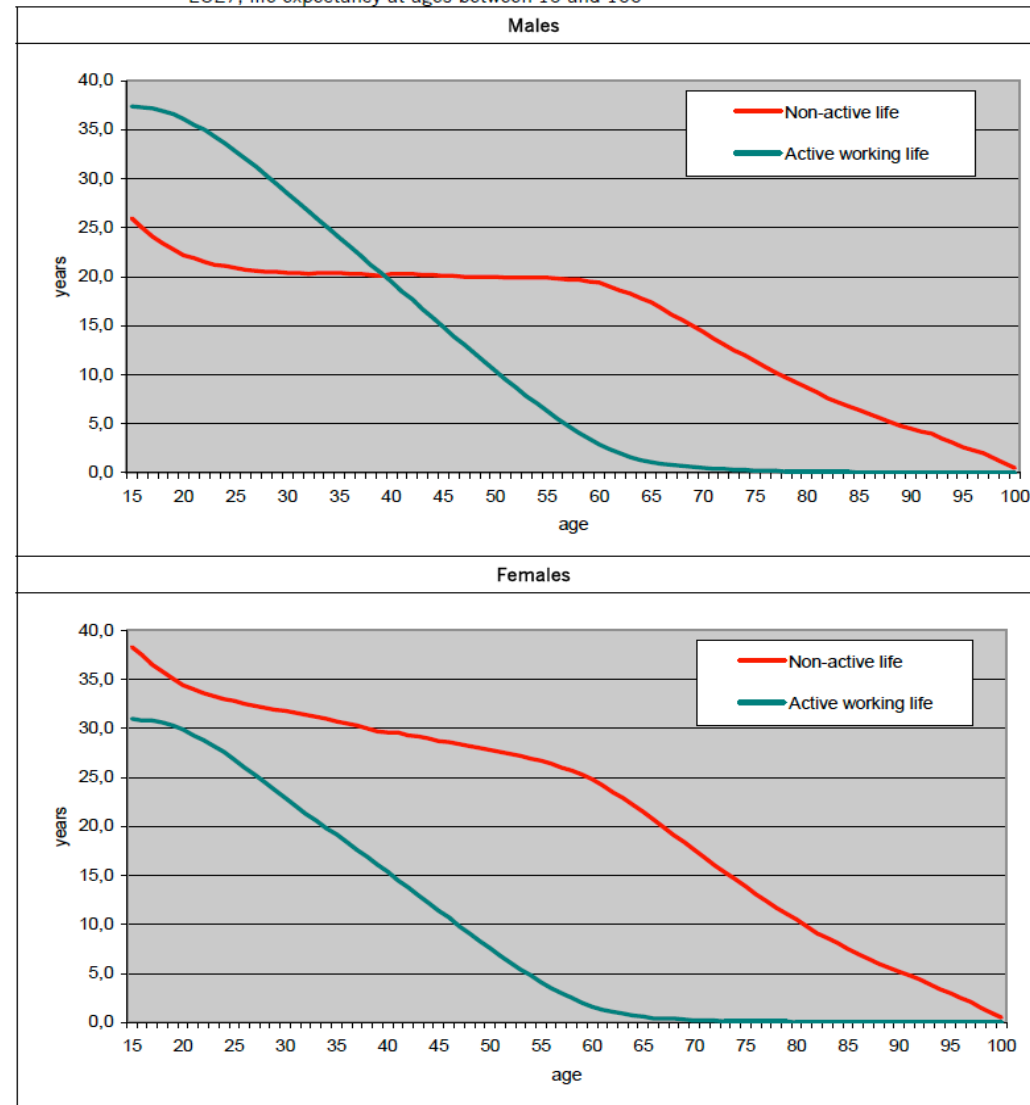
- Are conventional measures of ageing enough to measure ageing?
- Is there a need for new measures of ageing?
- Are there conventional measures of ageing that are still useful?
- How do different governments tackle challenges of ageing?
- What are the challenges and goals on a regional/national level?
- What are regional/national approaches dealing with health issues at older ages?
- What policies dealing with ageing have proven to be successful, which have not?
- What are the appropriate measures to compare the level and the speed of aging in different countries?
- How can countries benefit in approaching ageing from the experience of others?
- How can we measure the gender gap in ageing in different countries?
- Can migration be a remedy for ageing?
- Should the old-age threshold be related to legal pension age?

**The UN-ECE European Region:  
„Global Europe“ of 56 Countries on +3 Continents**



# EU28: An Idle Life Beyond Age 40 – or Predominantly? Active and Non-Active Life Expectancy at Ages 15 -100

Chart 13 Active and non-active life expectancy 2007  
EU27, life expectancy at ages between 15 and 100



Source: Economix (2009)

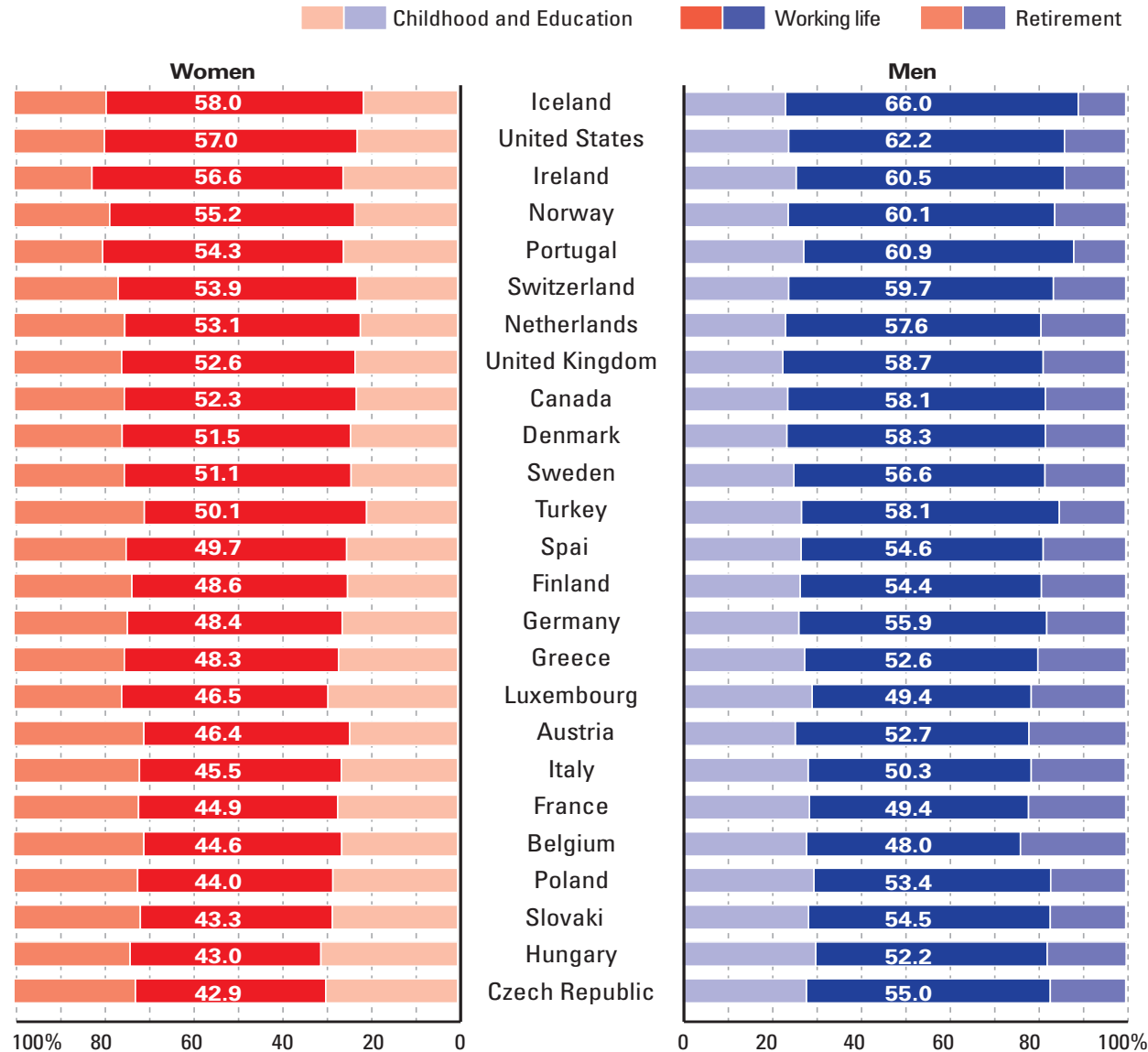
Source: Economix



## EU28: An Idle Life Beyond Age 40 – or Predominantly?

- Most Europeans in EU28 consider themselves being „young“ till **41.8** years of chronological age (2012)
- As the median age in EU28 is **40.9** years, a majority of Europeans, „the old Continent“, FEELS „young“.
- At this chronological median age, the median prospective age of remaining years (RLE-MA) is about the same as years lived since birth
- At this „young“ age around **40** years, MOST OF THE REMAINING ADULT LIFETIME for men and women IS SPENT OUT-OF-PAID-WORK OR IDLE, despite the fact that most of the future lifetime will be disability-free and healthy (around 90% DFLE)

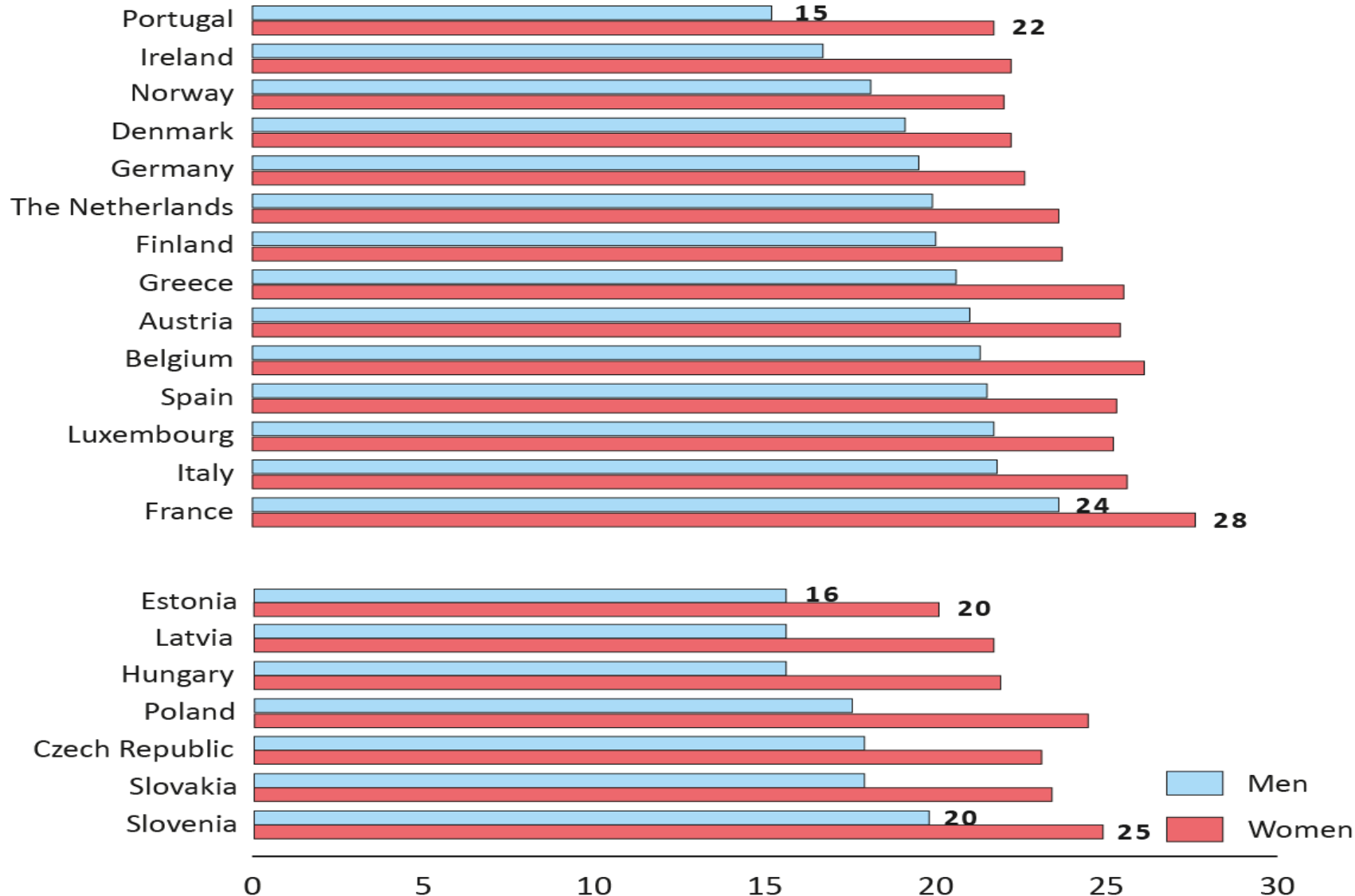
# Allocation of Lifeyears to Paid Work and Non-Work for Men and Women After the Millenium



Source: Marin / Zólyomi (Eds.), 2010: 274

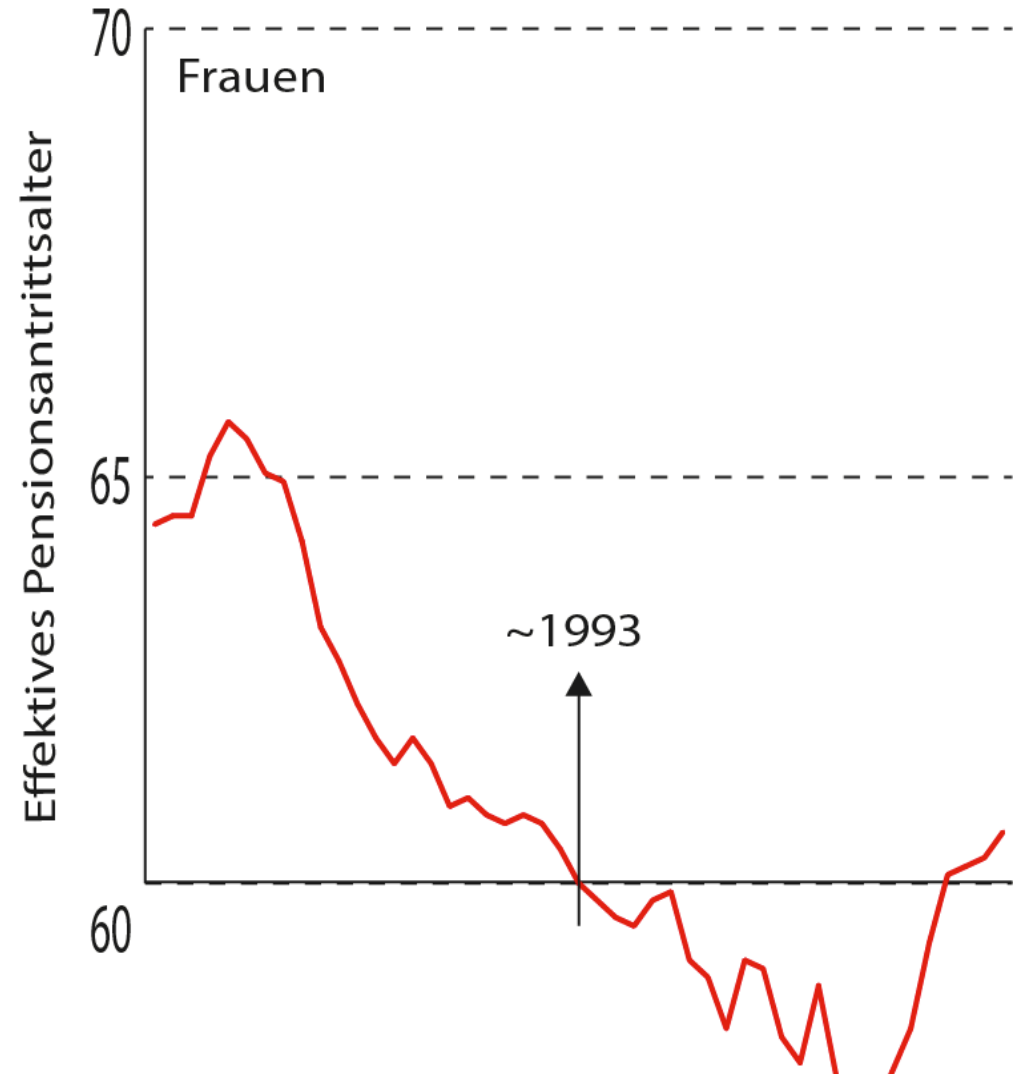
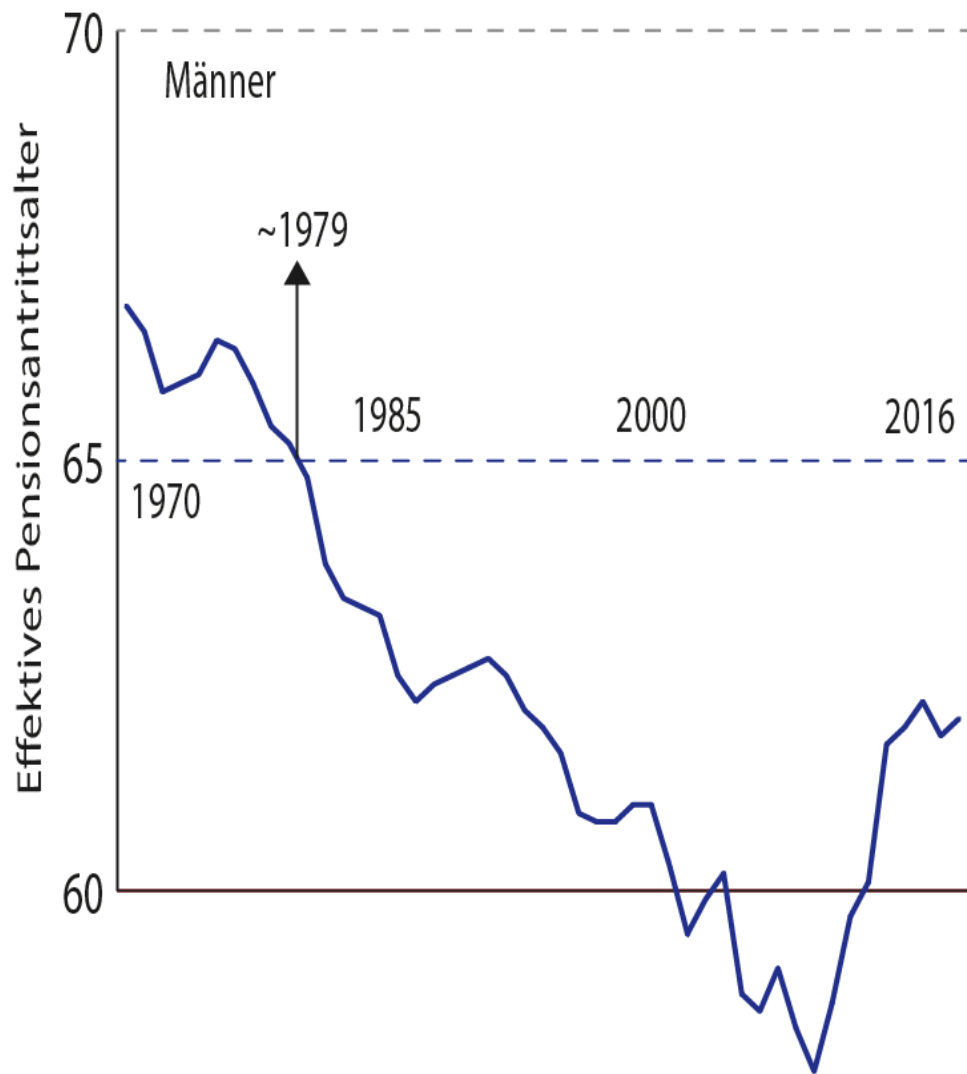
# Average Time Spent in Retirement: 15 - 24 Years (Men) and 20-28 Years (Women)

## Residual Life Expectancy at Actual Retirement Age by Gender, 2016



Source: OECD Stat, 2017

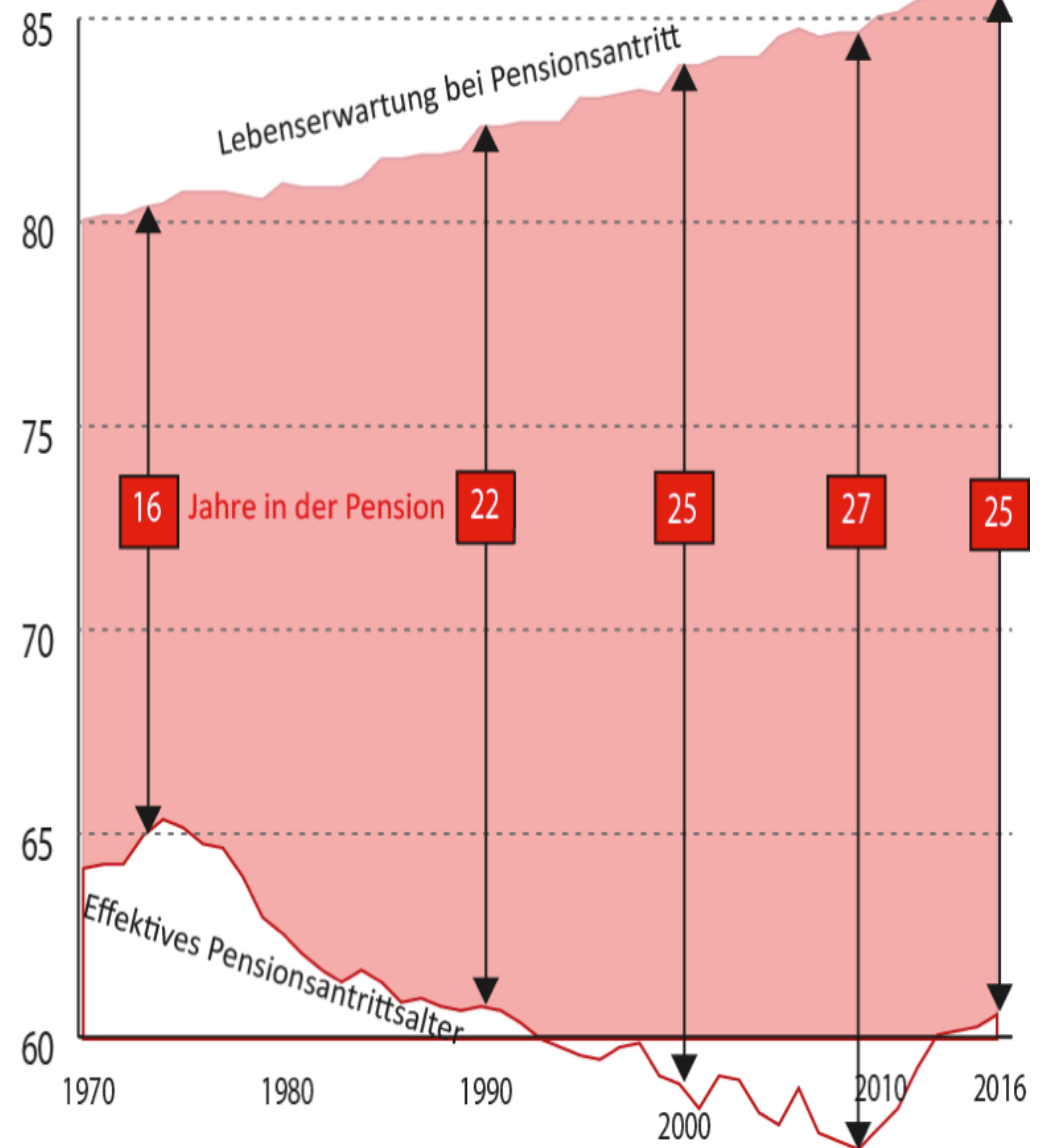
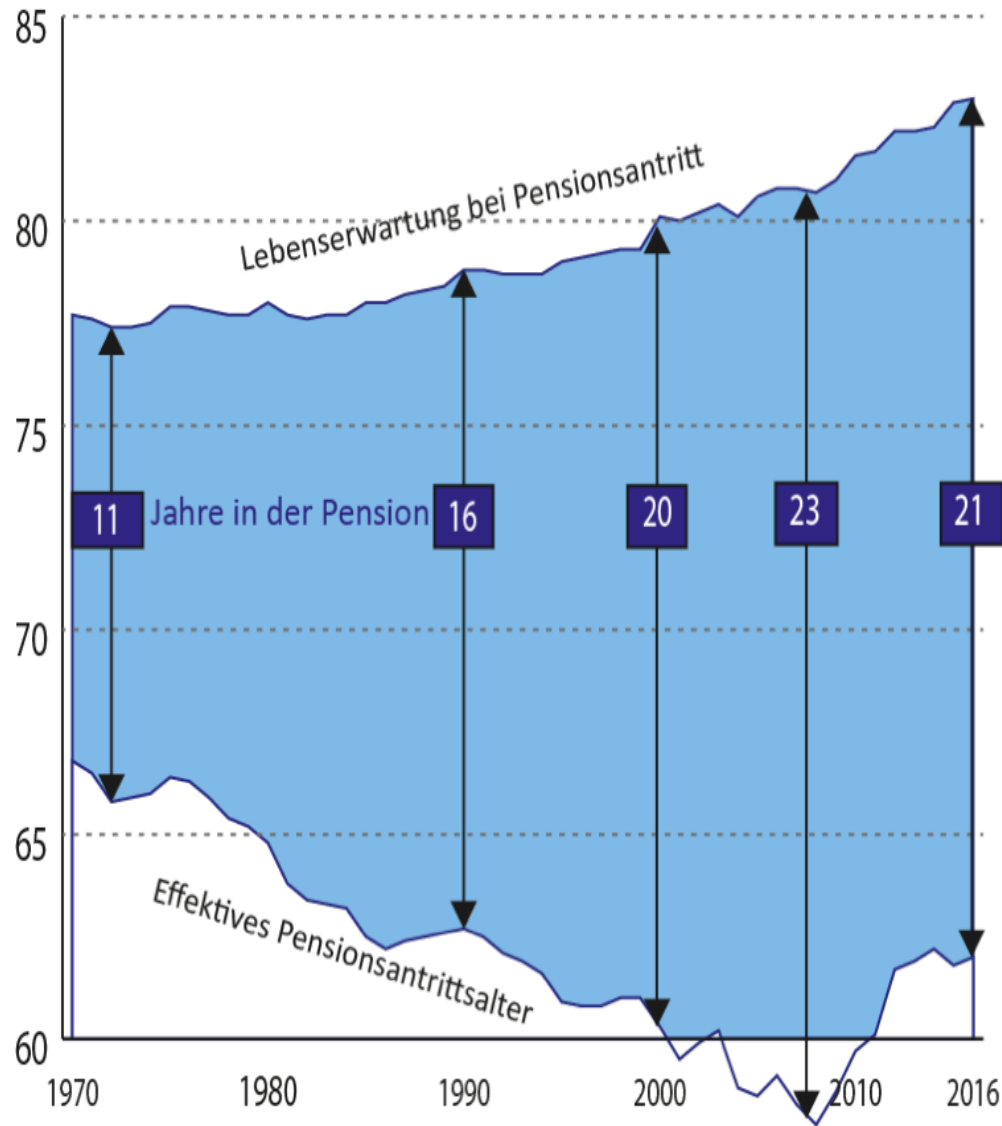
## Actual and Legal Retirement Age in Austria 1970 -2015, by Gender (65 Men, 60 Women)



**Source: OECD estimates based on the results of national labour force surveys, the European Union Labour Force Survey and national censuses, 2016**

# Rapid Increase in Pension Duration Austria 1970 - 2016

(Actual Retirement Age and Further Life Expectancy at that Age)



Source: OECD, Expected Years in Retirement, 2017

Activity / Inactivity Category	Average Numbers of Years Spent
<b>Childhood and Youth, Preschool, School and Education, before Entry to Work</b>	22-23
of which education (after age 15), unpaid	12.5 (3.5)
Military or civic duty ("Zivildienst") service (men)	0.6
<b>Voluntary Out-of-Work</b>	
Confinement benefit (women)	0.4
Parental leave	1.8 (women 3.7)
Care leaves and care allowances during working age (partly unpaid)	1.5
<b>Paid Non-Work as In-Work Benefit</b>	
Paid vacation (approx. 5 weeks per year)	3.6
Holidays	1.8
<b>Involuntary Out-of-Work</b>	
Unemployment (benefit and assistance)	1.9
Sickness benefit	2.0
<b>Invalidity Pensions</b>	
Invalidity period of invalidity pensioners only, during working age (65/60)	10.8 (men 12.6, women 9.8)
Average invalidity period of all pensioners, during working age	3.9
<b>Direct Pensions</b>	25.3 (men 22, women 27)
<b>Non-Work / Non-Contribution Periods in Working Age</b>	13.2 / 18.2
<b>Average Lifetime Contribution Periods</b>	
Men	36.7
Women	27.3
Total	31.8
<b>Average Lifetime Earnings Periods</b>	
Men	39.9
Women	33.9
Total	36.8

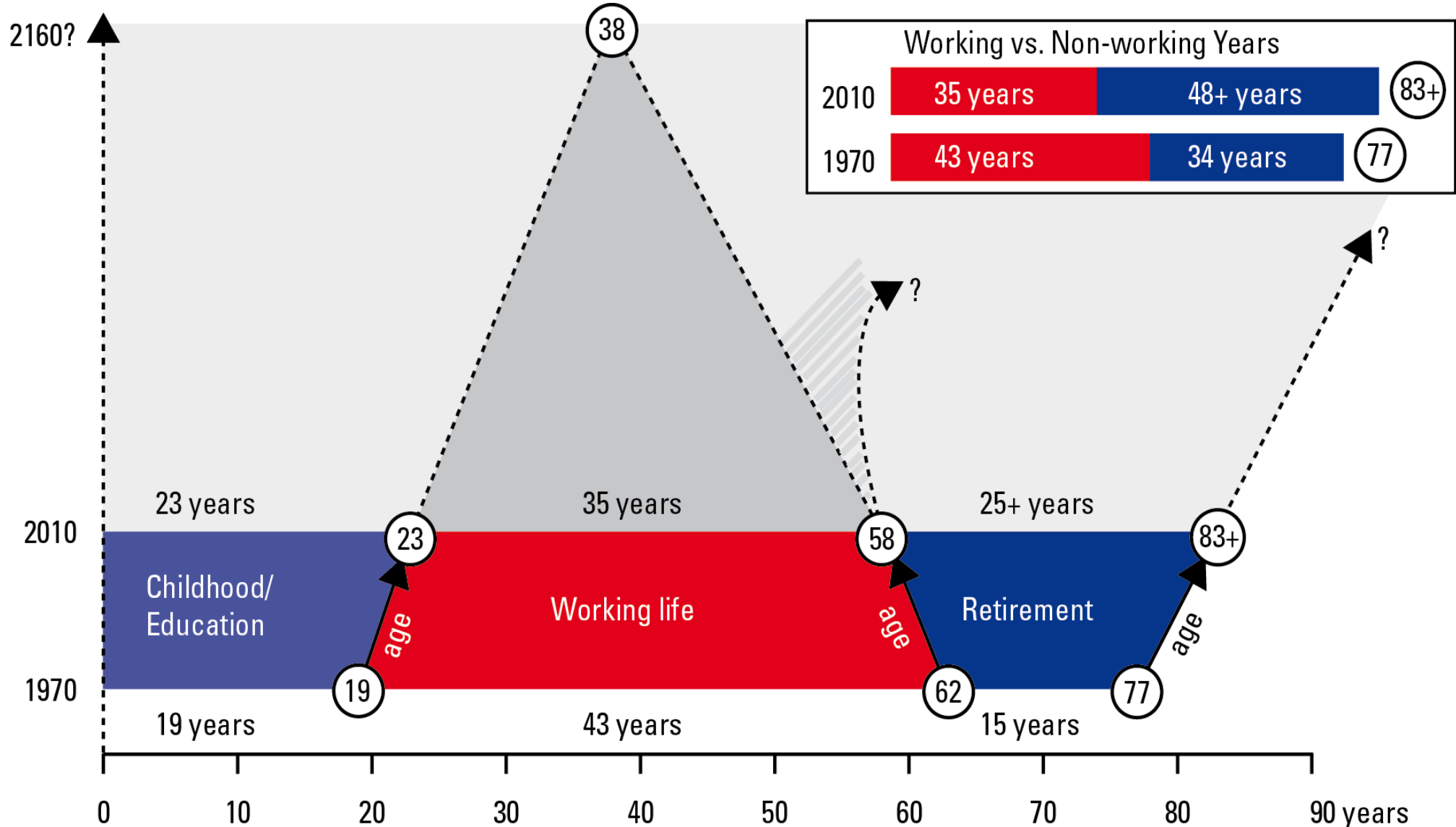
## Estimate of Average Lifetime Years (Paid) Out-of-Work, During and Beyond Working Age, of Persons Who Have Retired in Austria 2008)

**Source: Marin 2013, p110**

*Note: Period of invalidity pension is a proxy calculated by statutory age of retirement minus actual age of retirement. Period of direct pension is a proxy calculated by average life expectancy at age of actual retirement.*

*Sources: BMASK, Teilversicherungs-, Ersatzzeiten- und Wanderversicherungsbericht für das Jahr 2008, HSV, Daten zur Pensionsversicherung 2009, BMASK Sozialbericht 2009-2010, Famira-Mühlberger et.al 2010, Eurostat, own calculations.*

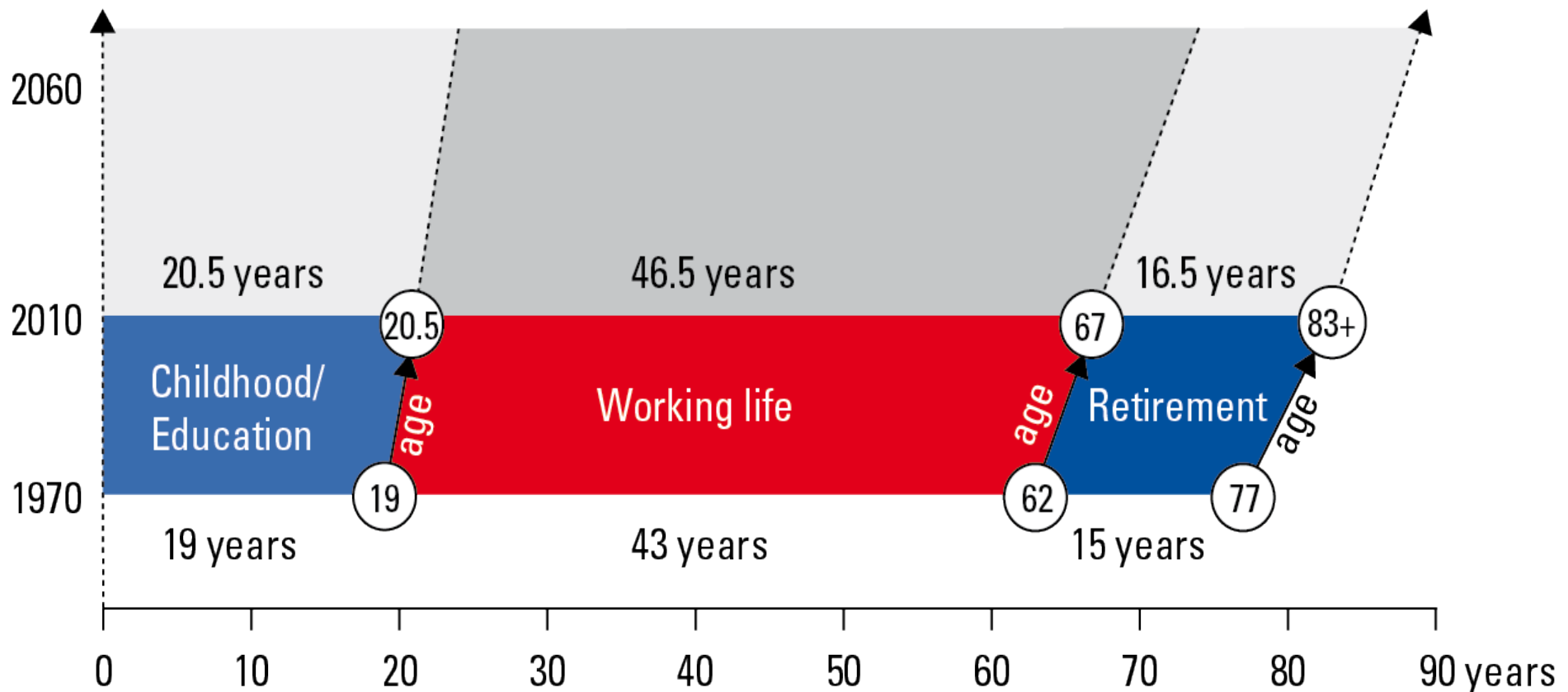
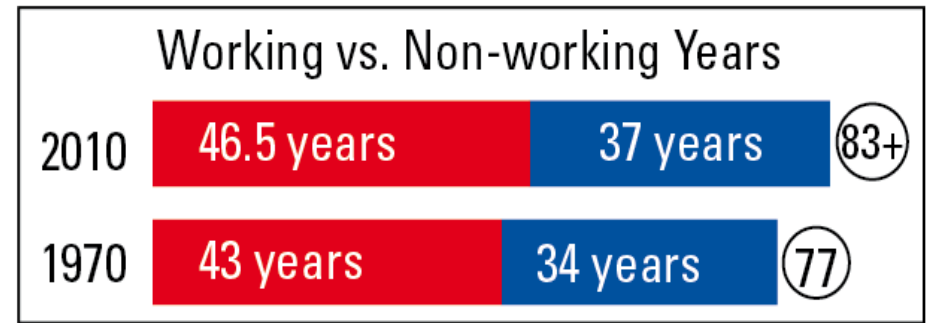
# Work, Education and Retirement over the Life-Cycle, Austria 1970 – 2010 as a Case in Point



Sources: HSV; Statistics Austria; Marin 2013, pp 207, 276

# Age-Inflation-Indexed Lifetiming, Austria 1970 – 2010

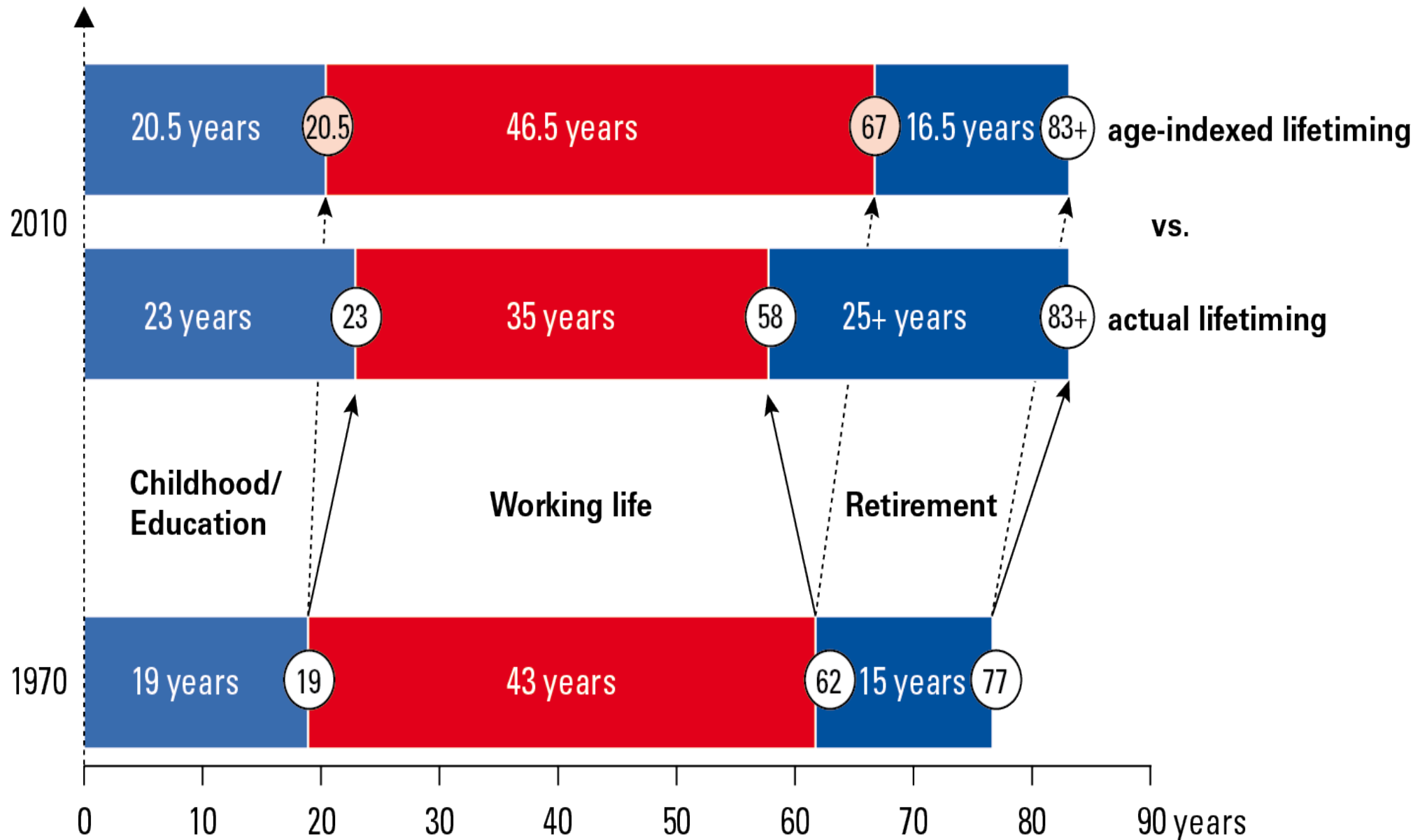
## A Counterfactual Work-Life-Balanced "Golden Age" Path





# Age-Inflation-Indexed Lifetiming, Austria 1970 – 2010

## A Counterfactual Work-Life-Balanced "Golden Age" Path



# Longevity, Ageing, Rejuvenation

- Longevity does not imply „old“: China, Turkey or Israel as examples of long-living, but still relatively young, but delayed and rapidly ageing societies
- Longevity does not imply ageing: „rejuvenating“ China 1945-1970 or Vienna 1995 – 2019
- E.g. „old“ Vienna rejuvenating, „young“ Istanbul, Kairo and Tel Aviv rapidly ageing
- Individual longevity, collective ageing  
– and collective rejuvenation
- Different forms of increasing life expectancy
- Chronological, socio-cultural, psychological, biometric and prospective age

# Redefining Age, Ageing, and Dependency

## Sanderson / Scherbov, Shoven, et al.

- Conventional concepts of age and ageing
- **New** definitions and measures: related to health, life expectancy, mortality, survival
- Individual vs. collective ageing
- **Conventional** population ageing defined by population
  - \* shares of „elderly“ (e.g. proportion 65+)
  - \* median age (over time, across countries)
  - \* old-age dependency ratio (OADR)

# Redefining Age, Ageing, and Dependency

## Sanderson / Scherbov, Shoven, et al./2

- Who is „young“/„old“ ? Time-space neutral definitions – or relativity theory (and measures) of age and ageing?
- „Young“/„old“ at times of Jesus Christ, Mozart, Kant, Goethe, Mick Jagger and Amy Winehouse
- „Young“/„old“ today – in Sierra Leone, Moldova, Ukraine vs. France, Switzerland, Japan

# Redefining Age, Ageing, and Dependency

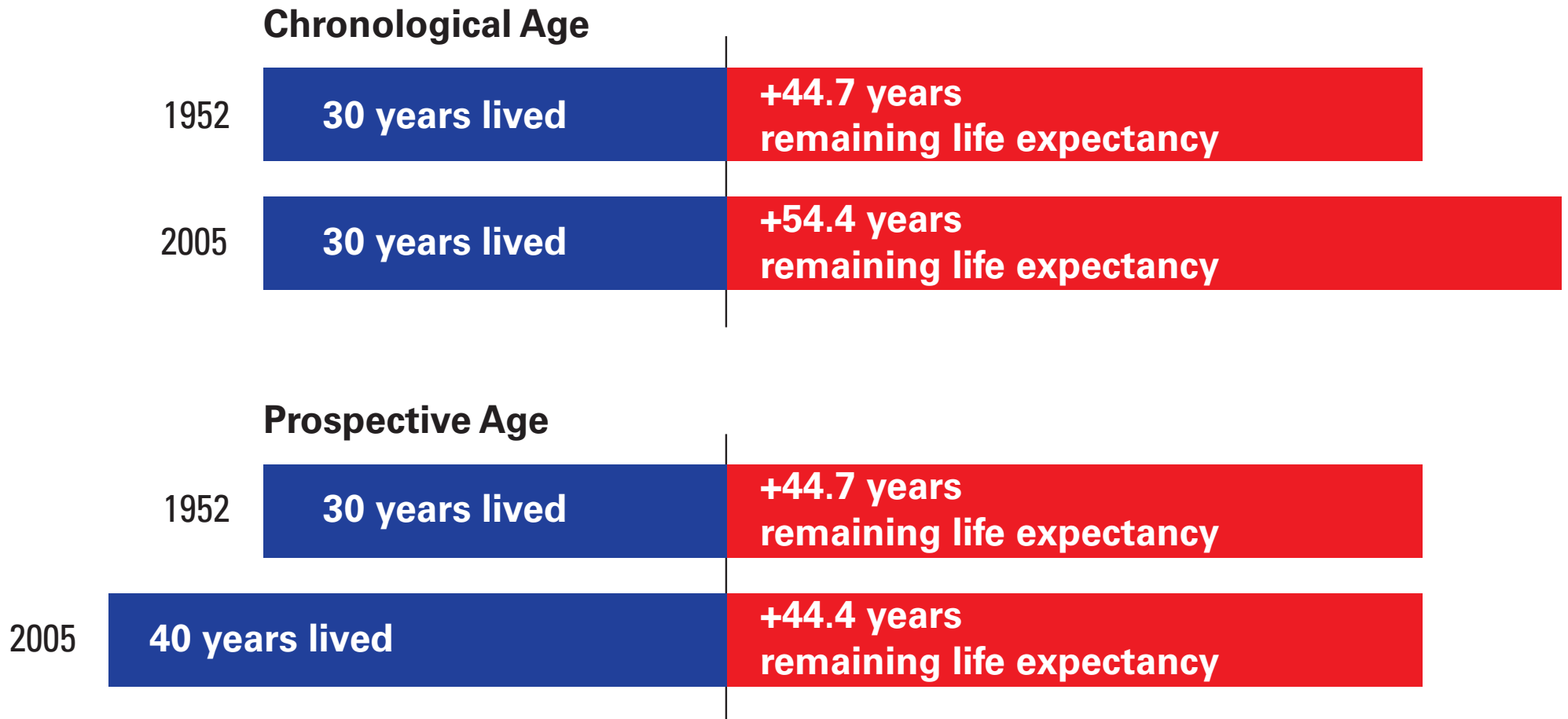
Sanderson / Scherbov, Shoven, et al./3

- „Young“/„old“ in Austria: Vienna vs. Tirol, scientists vs. construction workers, etc.
- „“Younger“/“older“ women and men today: Cyprus vs Russia, Iceland vs Belarus, UK vs Lithuania, Israel vs Ukraine – and Greece vs France
- How much „younger“ prospectively are women at what „same“ chronological age (birth, age 20, 40, 65, 80) as men?  
At birth: „5-15y“ / at 65: 3-5y / at 80: 1-2y

# Chronological / Retrospective vs. Prospective Age:

## “40 is the New 30” - French Women

(Born 1922, 1965, 1975) in 1952 and 2005 as Cases in Point



Source: Sanderson and Scherbov, 2008: 5, Figure 3

# Age Inflation in Austria (1970 – 2018)

- Labour market exit / actual retirement age:  
62-66,8 y (1970) = 70-74,5 (2014) = 74,5-79 (2060)
- Chronological vs. **Prospective Age e.g. 46y** (0 – 30 – 40)  
„Grandma“ born 1890: 46 Years LE at birth  
1960: 46 Years RLE at age 30  
2018: 46 Years RLE at age 40
- 40 today = 30 in 1956 (modern social insurance act)
- 73 today is the new 65 of the 1970s
- 70 in the year 2060 will be 65 or less today

# Lifetime Rescheduling/Age Diversity

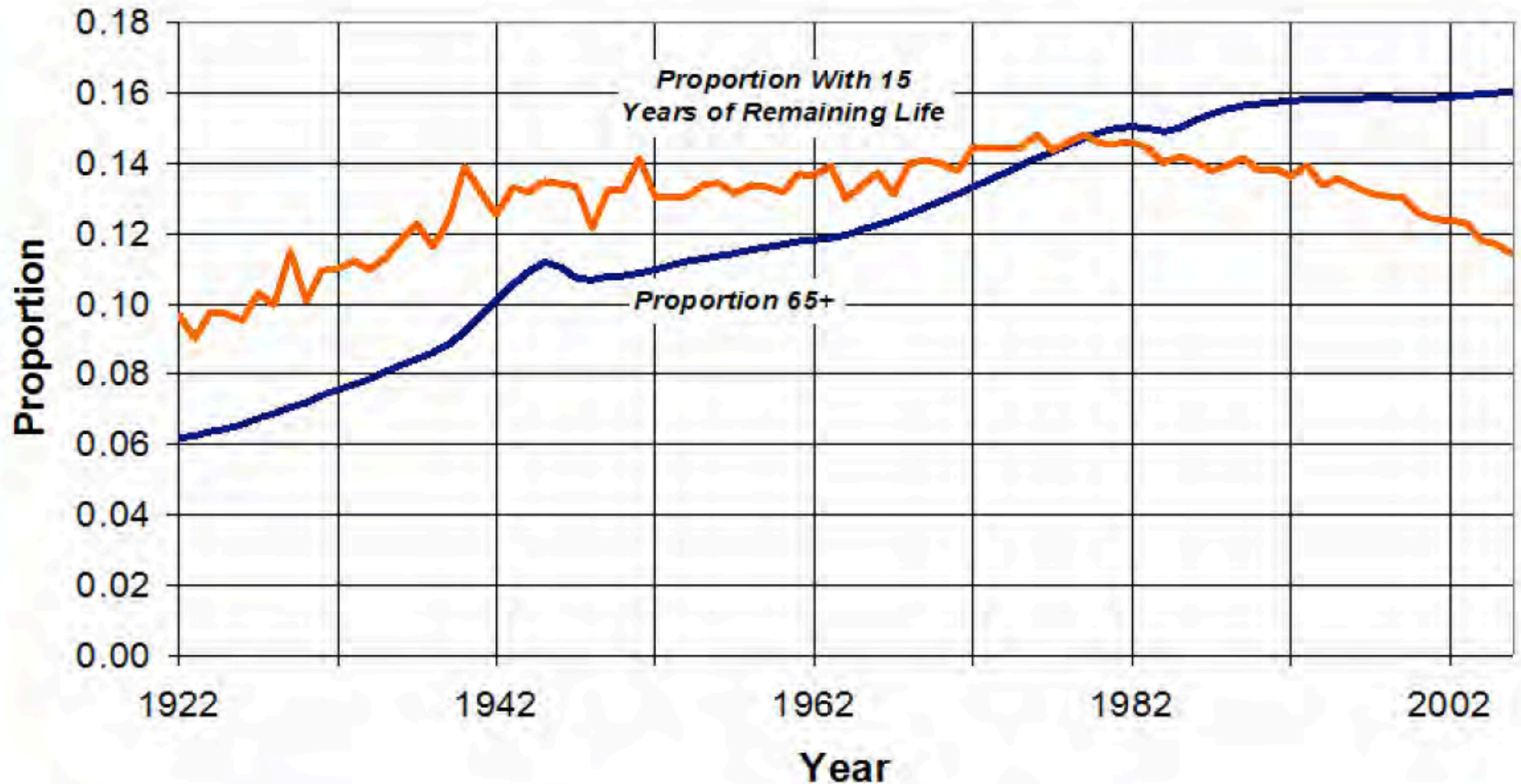
- Primipara (first birth mothers) at age 40+ (if not 54 Gianna Nannini) and „late“ mothers (Cheryl Blair, Carla Bruni-Sarkozy)
- „Hotel Mama“ up to mid 30s, family formation at age 45+ (if not older) and family re-formation at almost any age
- First-year students at age 50+, senior students at any age
- 40+ year old grandmothers (or mothers of adult children) kickstarting their first professional career
- Oldest-old (85 up to 90+) continuing (paid) work, labour (with physical strain), or even kickstarting their first gainful (self-) employment, re-marrying, having sex, new trajectories, etc.
- New phenomena such as un-retirement = re-entry of labour force of millions of fully retired persons (e.g. 14% in Sweden, for 3 years), apart from partial/gliding retirement, bridge jobs, etc.



# Is the UK Ageing or Rejuvenating ? Are there more or fewer “old” people since 1922 or 1982 ?

Share 65+ vs. share with 15 years or less of further life expectancy

- United Kingdom, 1922 - 2002

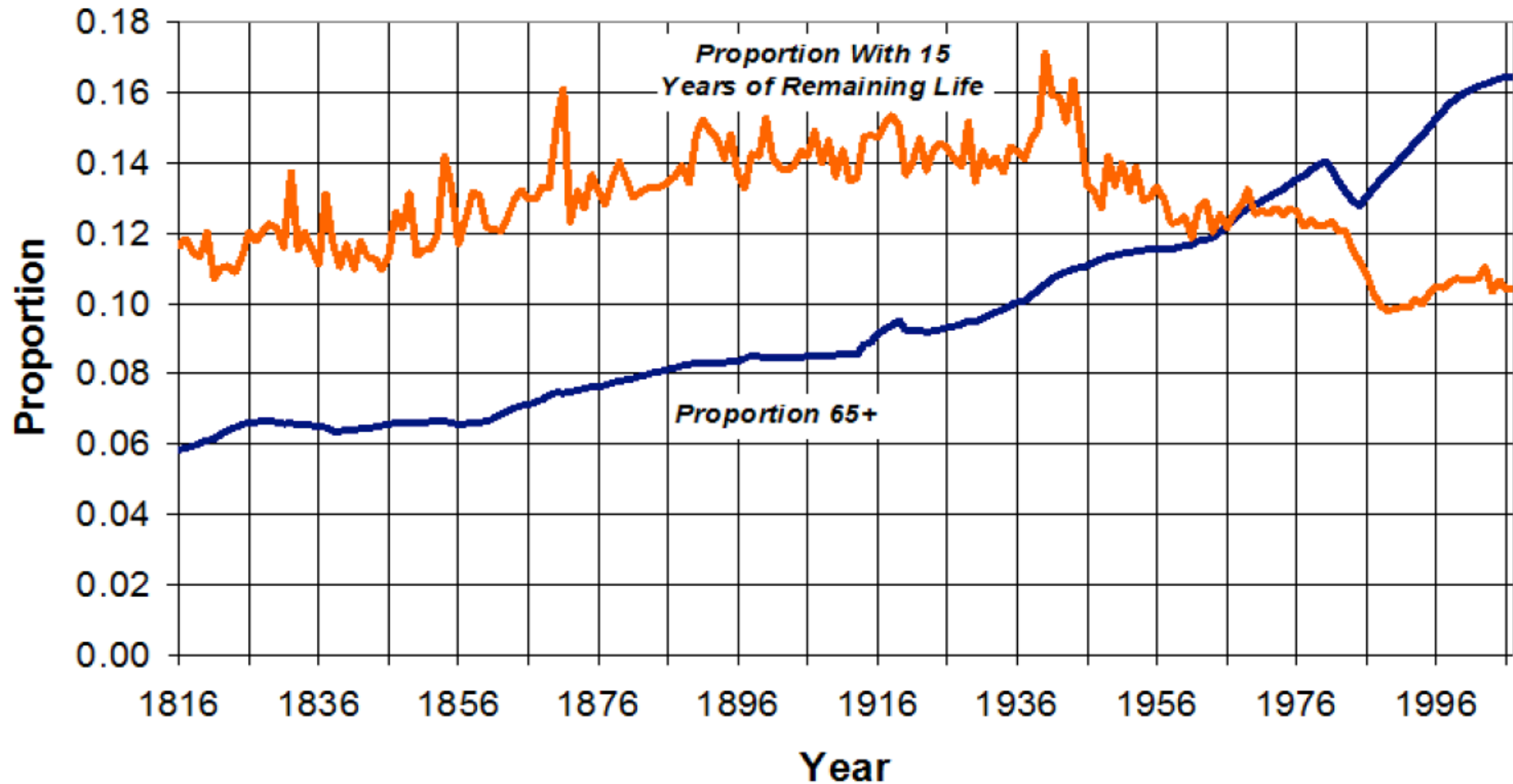


Source: Scherbov 2011

# Is France Ageing or Rejuvenating ? Are there more or fewer “old” people since 1816 or 1936 ?

Share 65+ vs. share with 15 years or less of further life expectancy

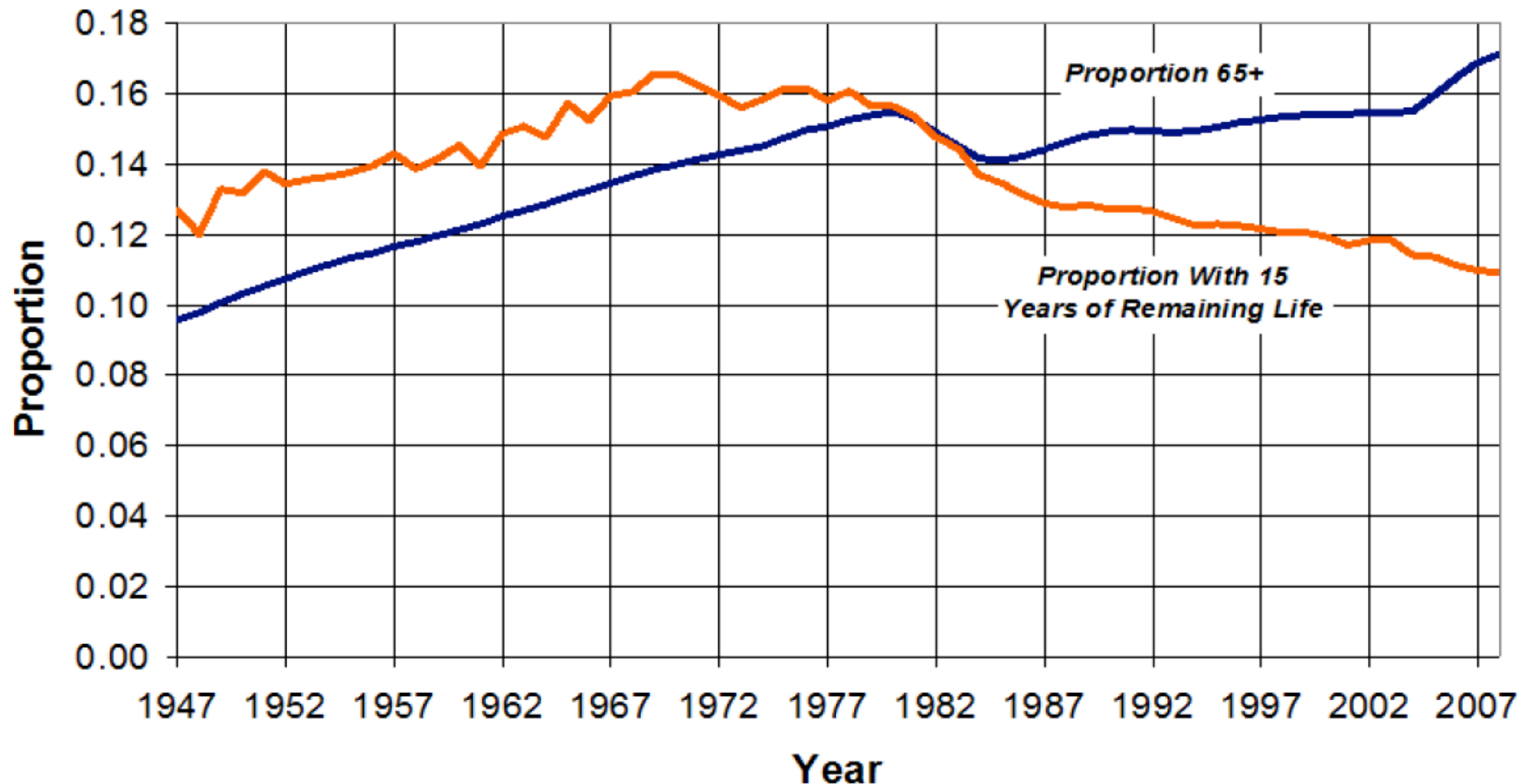
- France, 1816 - 1996



Source: Scherbov 2011

# Is Austria Ageing or Rejuvenating ? Are there more or fewer “old” people since 1947 or 1970 ?

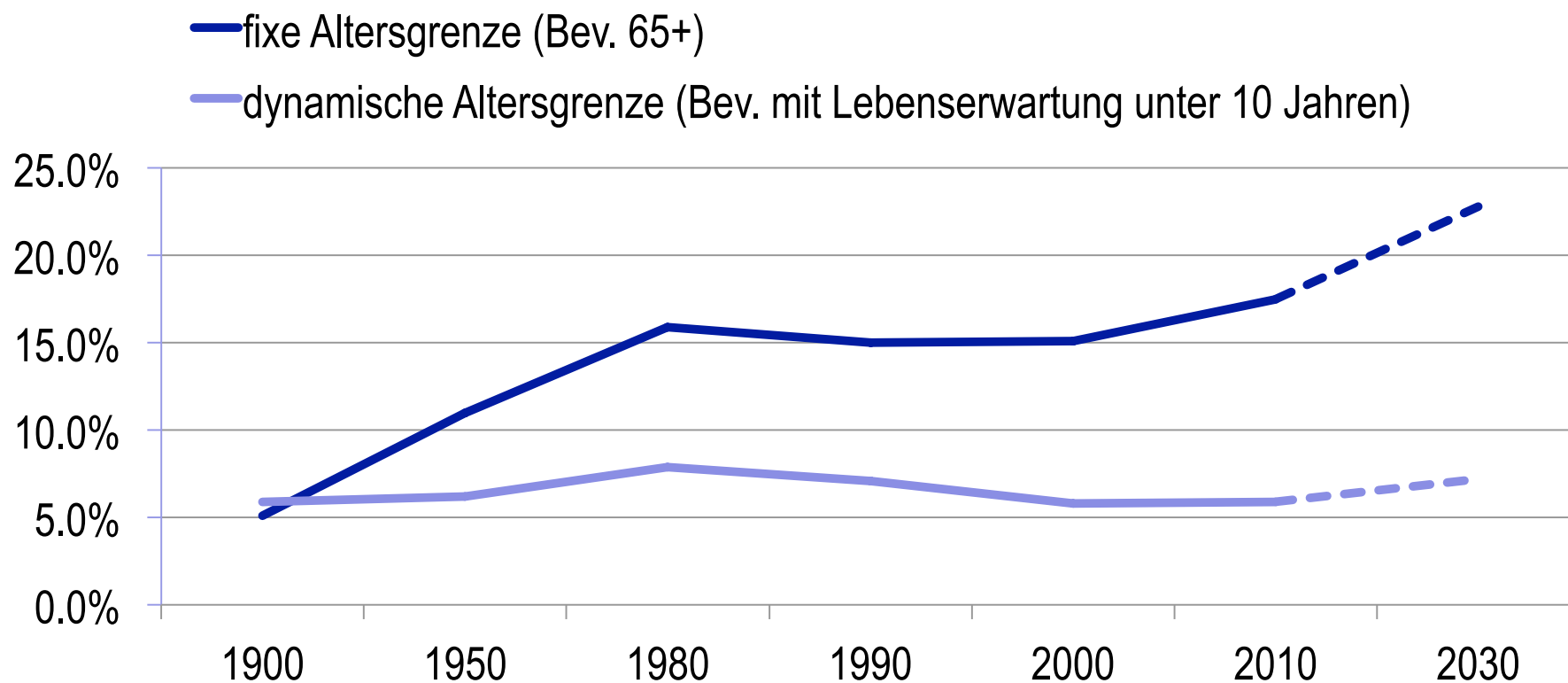
## Share 65+ vs. share with 15 years of further life expectancy



Source: Scherbov 2011

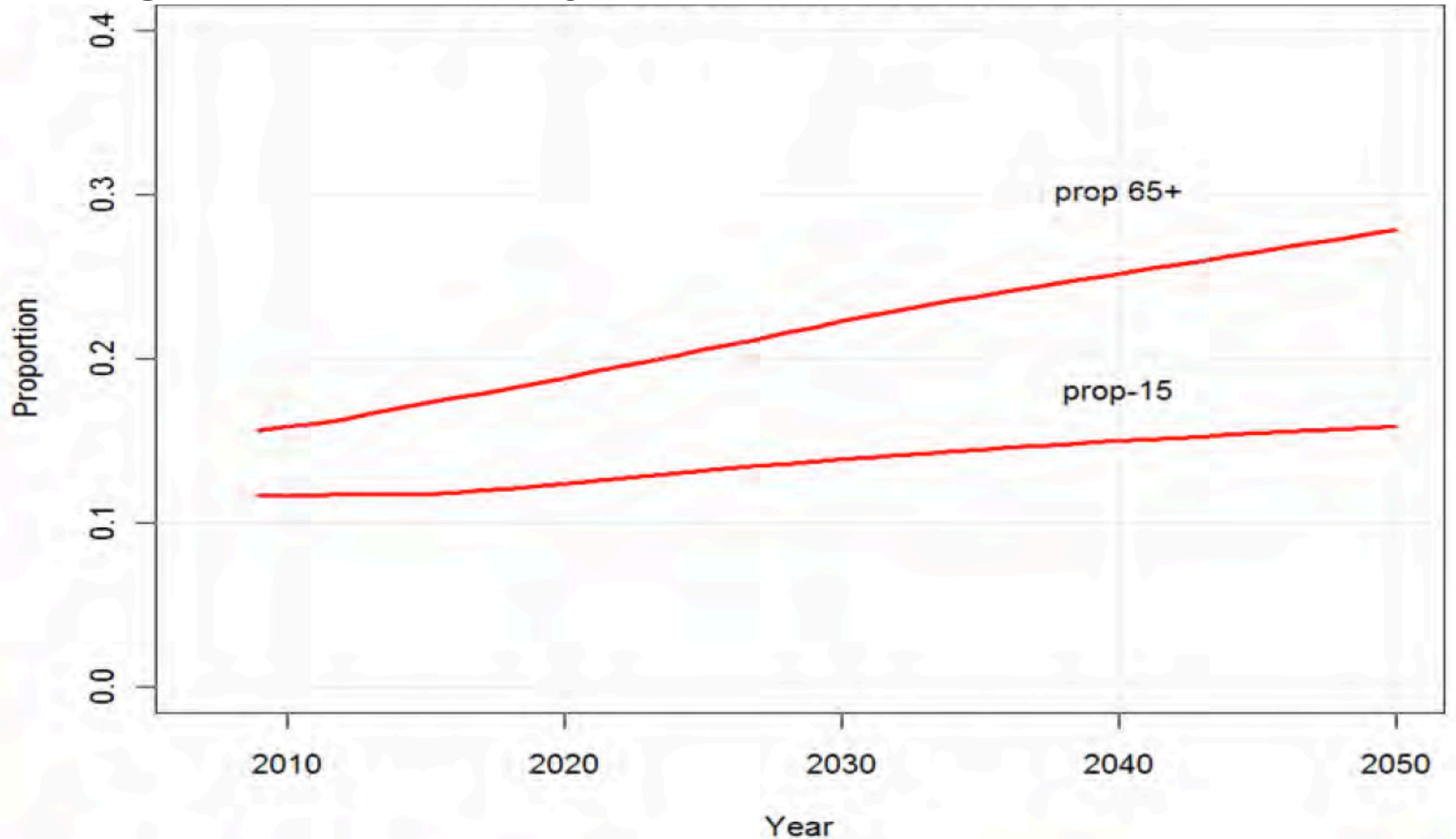
# Is Austria Ageing – or Rejuvenating 1900 – 2013 – 2030 ?

**Taking “Age Inflation” and Dynamic Age Thresholds (RLE-10) Into Account**



**Sources: Kytir, 2008:55; see also Scherbov, 2011; Sanderson/Scherbov, 2010, Marin 2013, p 279**

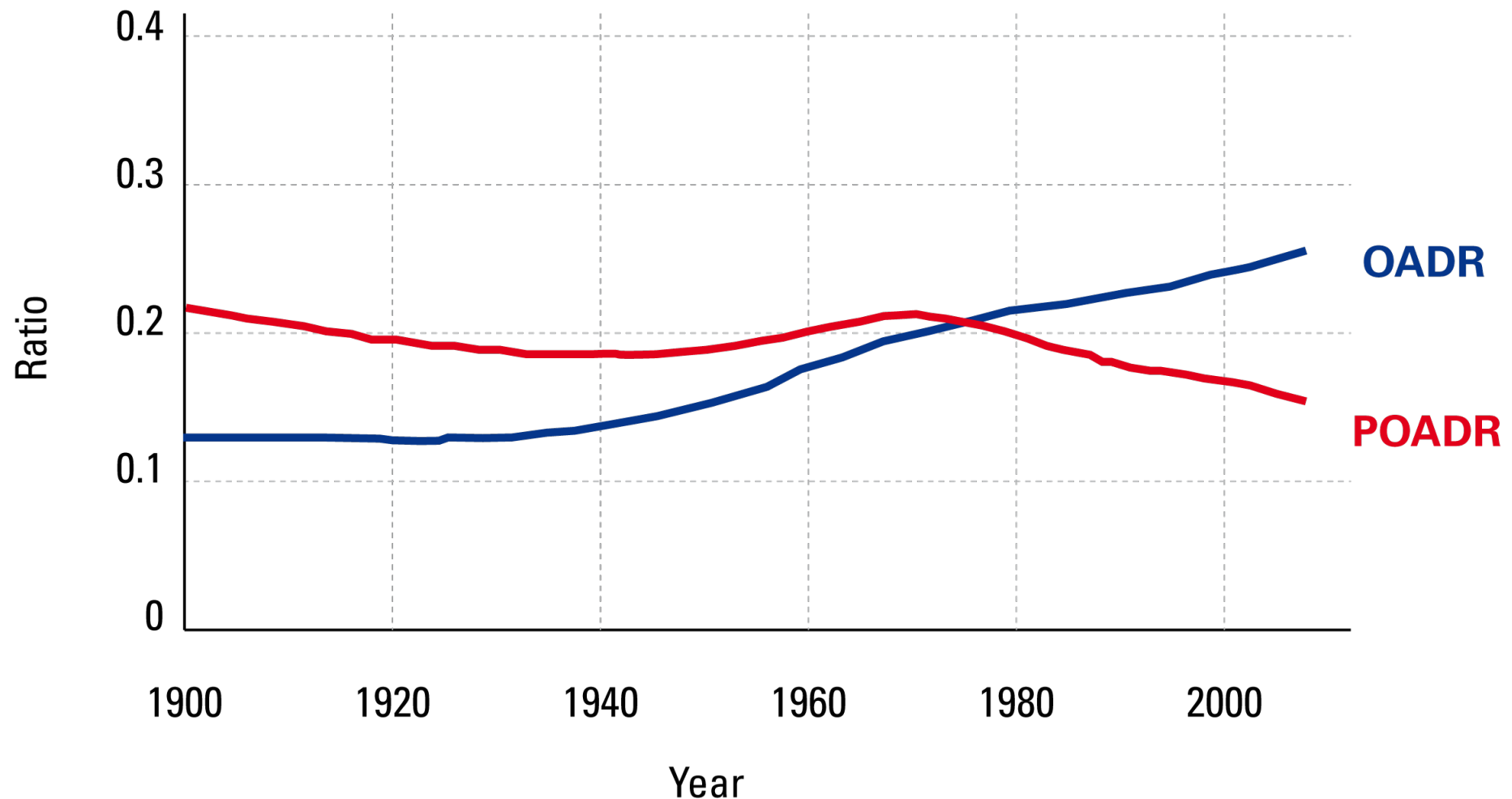
## Proportion 65+ and Proportion with RLE 15 Years or Less Average for Low Mortality European Countries 2010 - 2050



Source: Scherbov 2011

# Old-Age Dependency Ratio (OADR) vs. Prospective Old-Age Dependency Ratio (POADR)

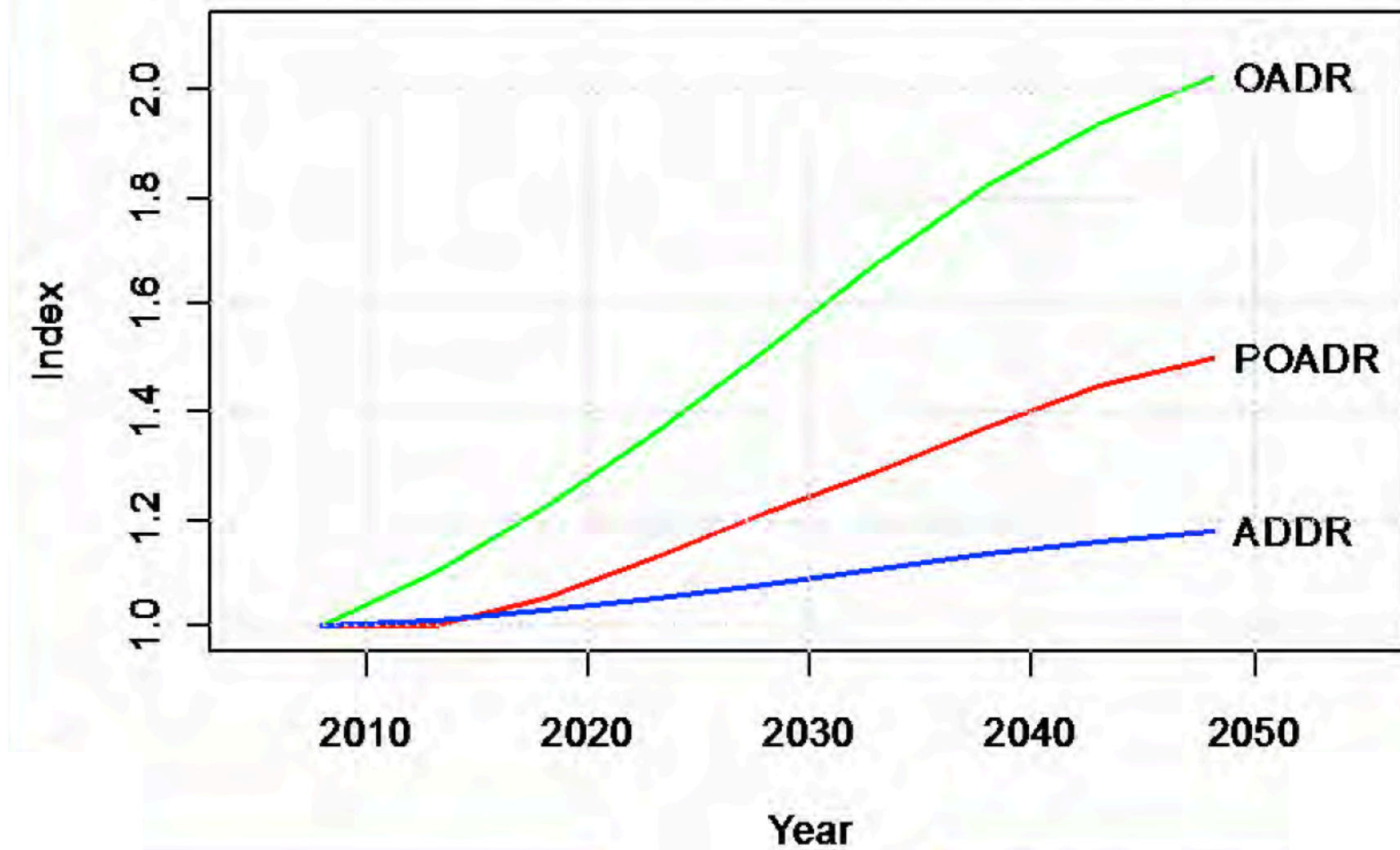
Average for Low Mortality OECD Countries 1900 - 2010



Source: Scherbov 2011

**Old-age dependency ratio (OADR), prospective old-age dependency ratio (POADR), and adult disability dependency ratio (ADDR)**

**Selected OECD Countries, Average, 2008 – 2050 (2008=1)**



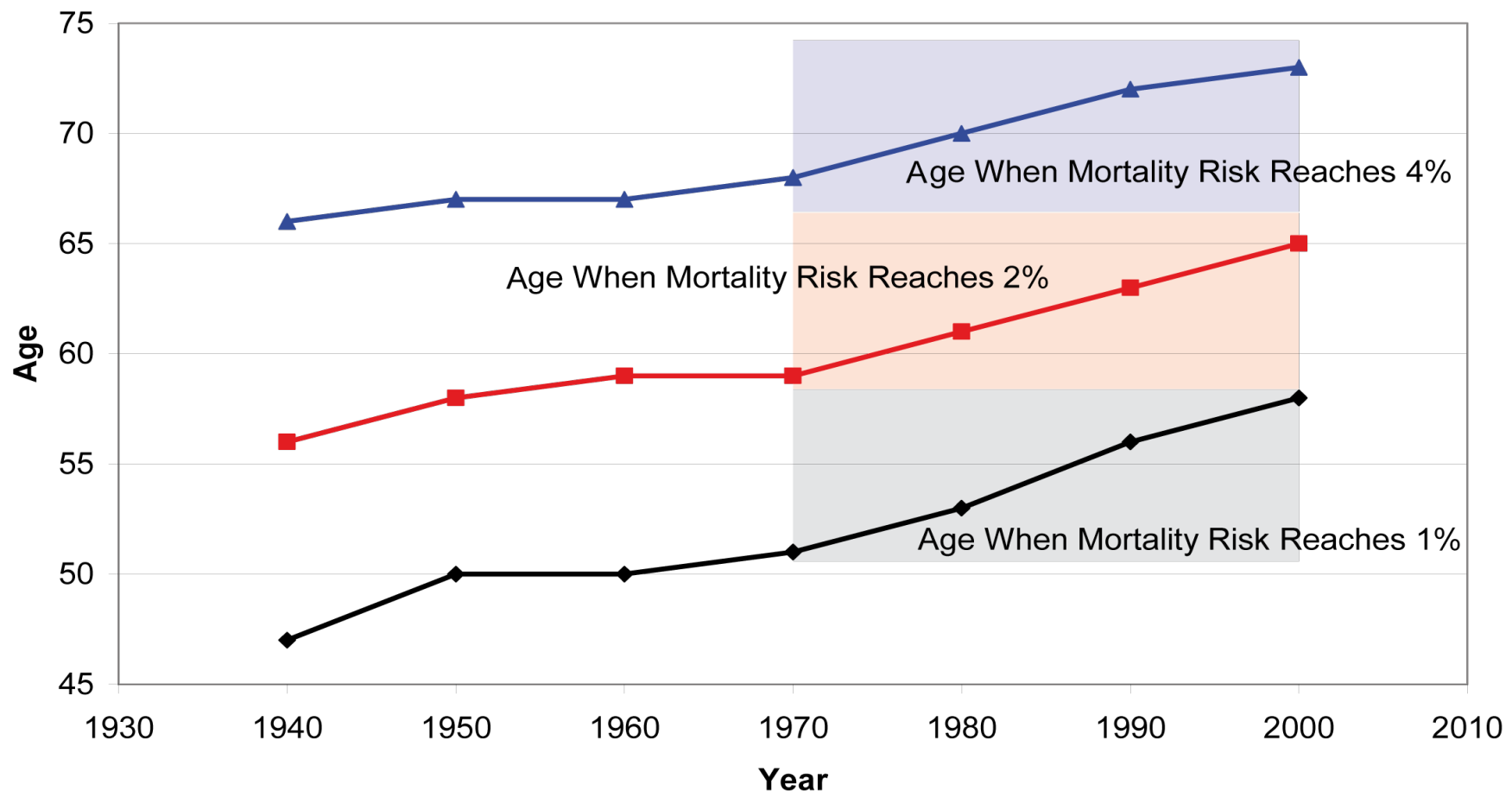
**Source: Scherbov 2011**

# US Men 1970 – 2000: “65 is the new 59”, “58 is the new 51”, “73 is the new 68”

Figure 1

Age of Mortality Milestones for Men, 1940-2000

65 Year Olds in 2000 Had the Same Mortality Risks as 59 Year Olds in 1970

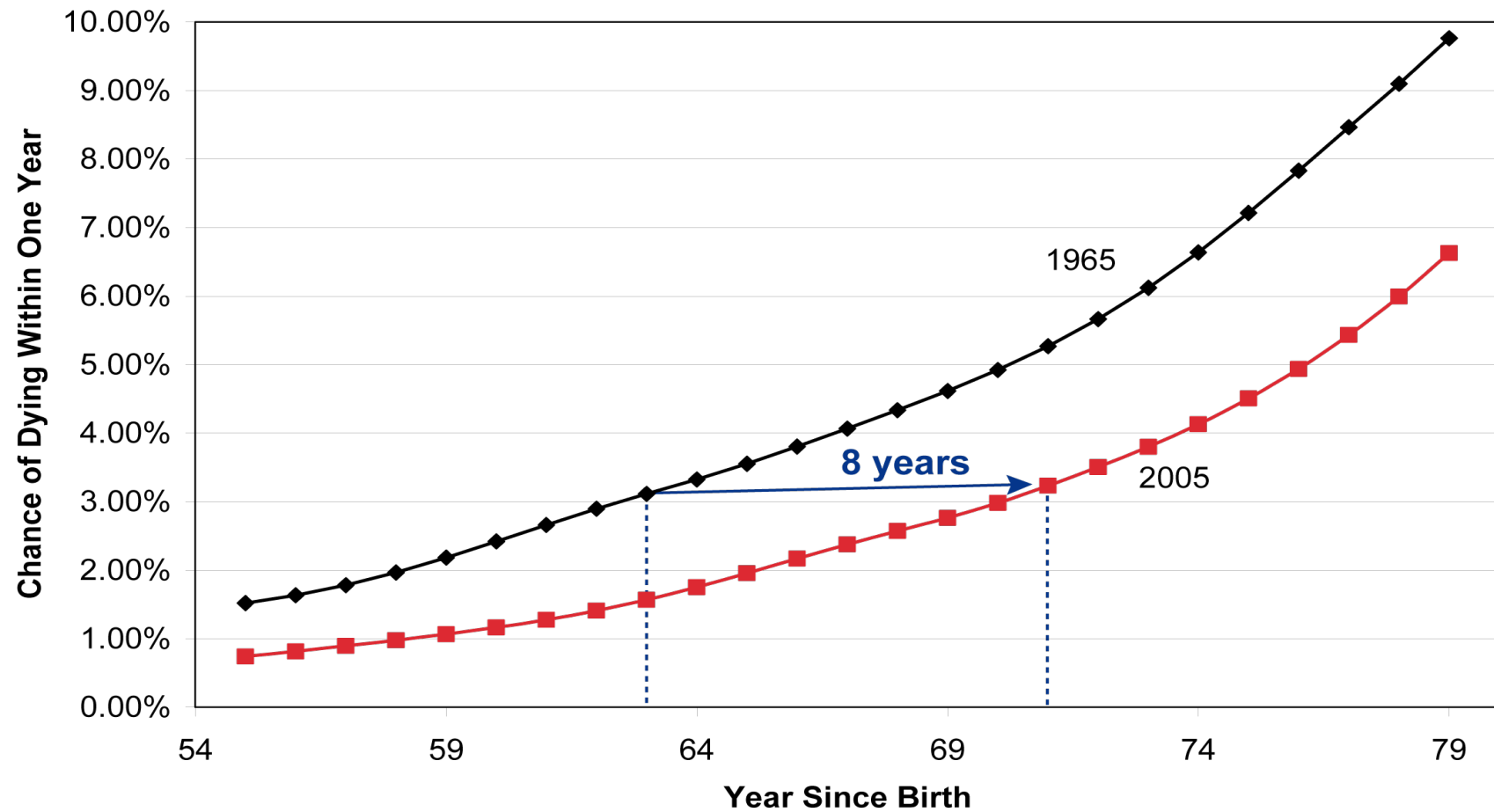


Source: Shoven (2007)



# US Men 1965 – 2005: “71 is the new 63”

Figure 3  
Male Mortality Risk by Age in 1965 and 2005, Age 55 thru 79

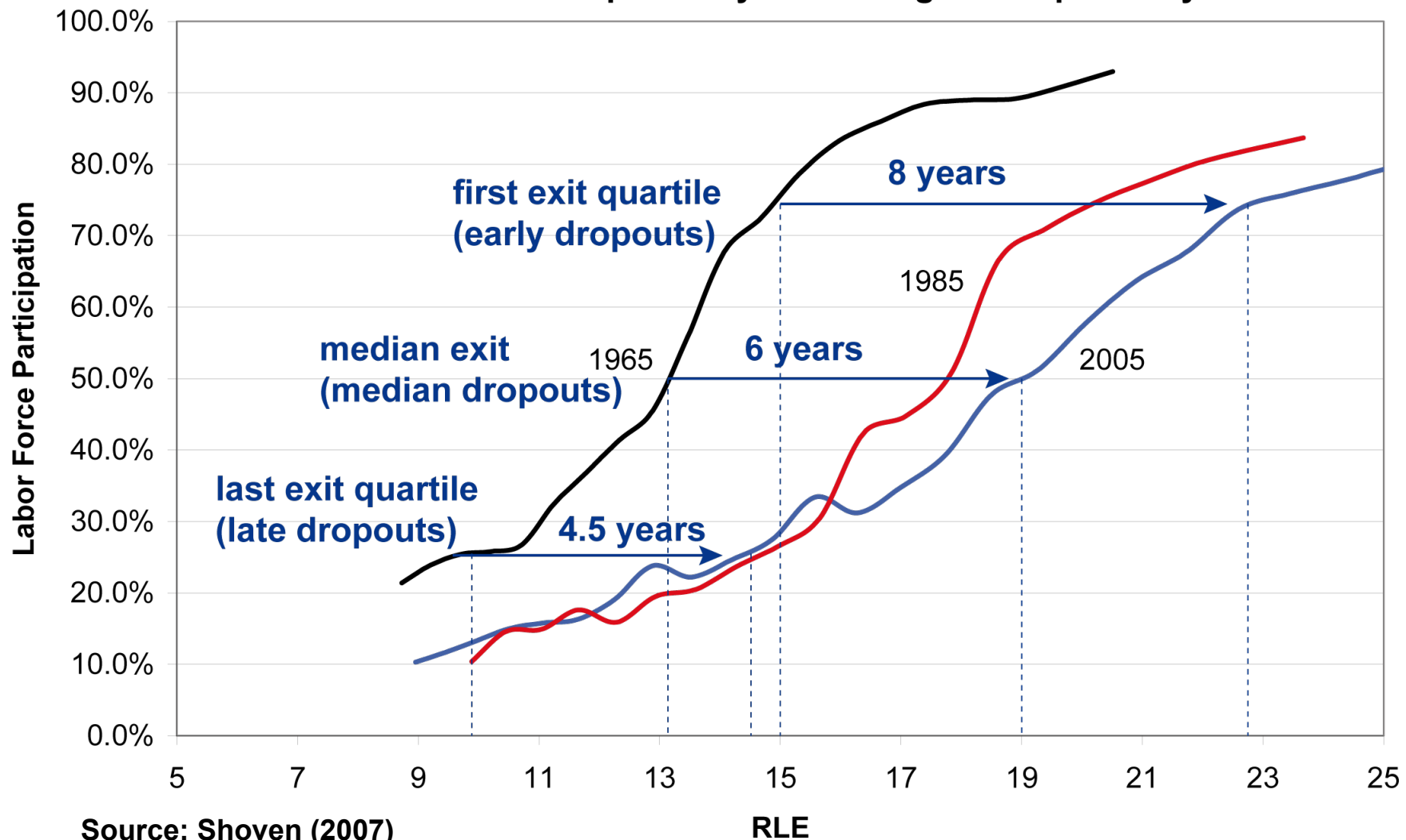


Source: Shoven (2007)

# US 1965 - 2005 Male LFP and Exit by Remaining Life Expectancy (RLE) 9 - 25 Years

Figure 10

Male Labor Force Participation by Remaining Life Expectancy



Source: Shoven (2007)

# Age Inflation and Lifetime Indexing: Some Indicators Proposed

- Age and Proportion of People with RLE-15 vs. Share 65+ (1960 – 2018)
- Age and Proportion RLE-10 vs. Share 65+ (1900 – 2050)
- Age and Proportion of Persons with Mortality Risk > 1%, 2%, 3%, 4%, 5%, 10% p.a. vs. Share of People 50+ to 80+
- Age and Proportion of Persons with Survival Rates > 50%, 66%, 75%, 80%, 90%

## Pace of Ageing

- Prospective Median Age vs. Median Age 1950 – 2010 – 2050

# Historical Timing of Population Ageing: Some Indicators Proposed

- Time and Age at Which People Had / Will Have Remaining 40 (20, 15, 10) Years to Live
- Year When Certain Median Age Thresholds Were/Will Be Passed (,Year When Half the Population Is Above/Below 20,30,40,50“)
- Year When OADR  $\geq$  YADR (e.g. Italy 1980 vs. Turkey 2050)
- Year of Ageing Peak
- Years when Ageing of the Aged (Share of the 80+ in the population 65+, ratio  $>$  15%, 25%, 33%, 40%) Thresholds Were/Will Be Passed

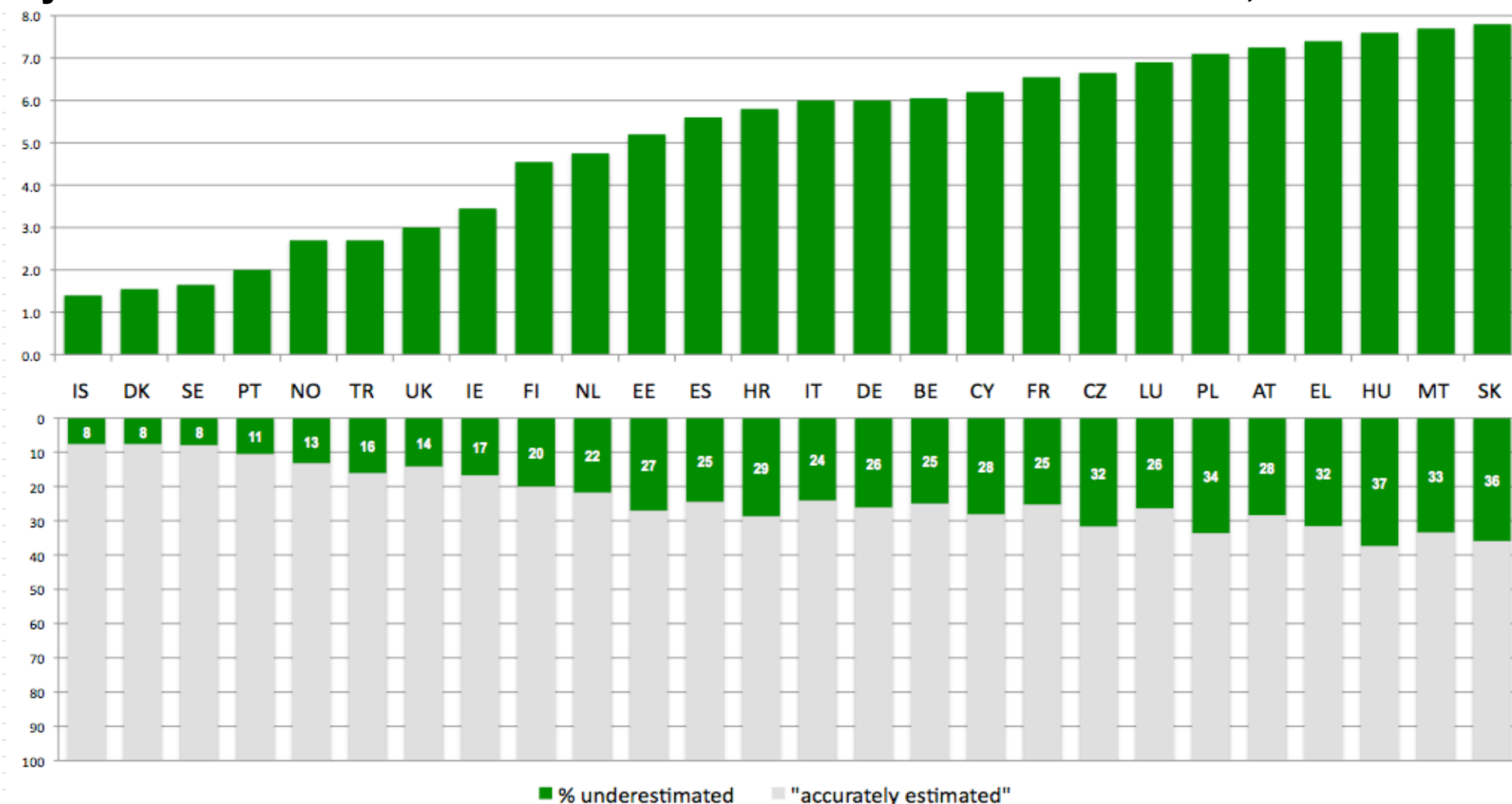
# Age Inflation and Lifetime Indexing: Some Indicators Proposed

- Work, Education and Retirement over the Life Cycle 1960 – 2018
- Extension of Effective Retirement Duration 1960 – 2018
- Age-Inflation-Proof Measures of Working Age and Retirement Duration 1960 – 2018

# “Retirement Illusion” or “Pension Illiteracy”?

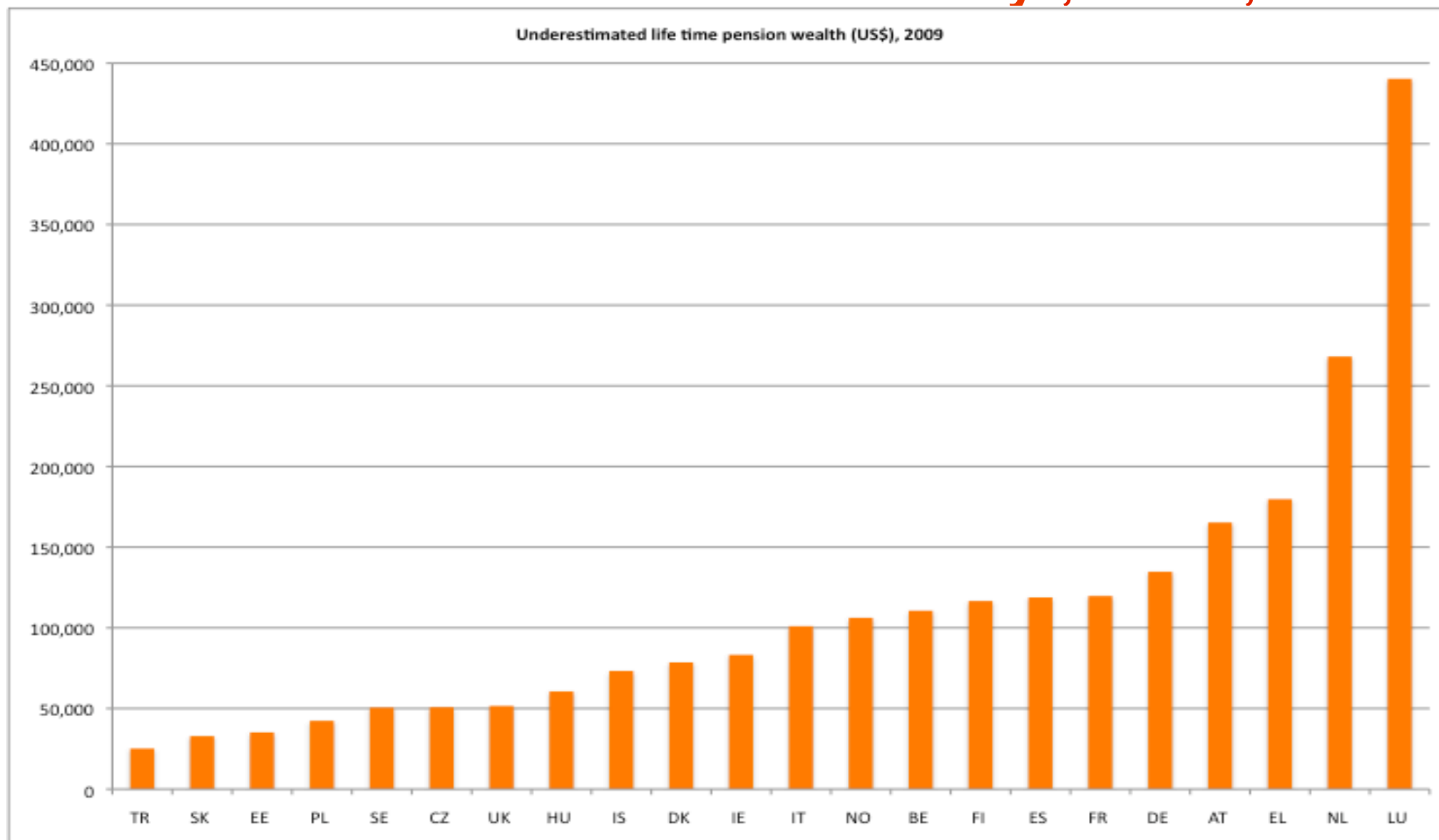
## Misperceived Retirement Years

In years and as a share of the “real” retirement duration in EU+26, 2009



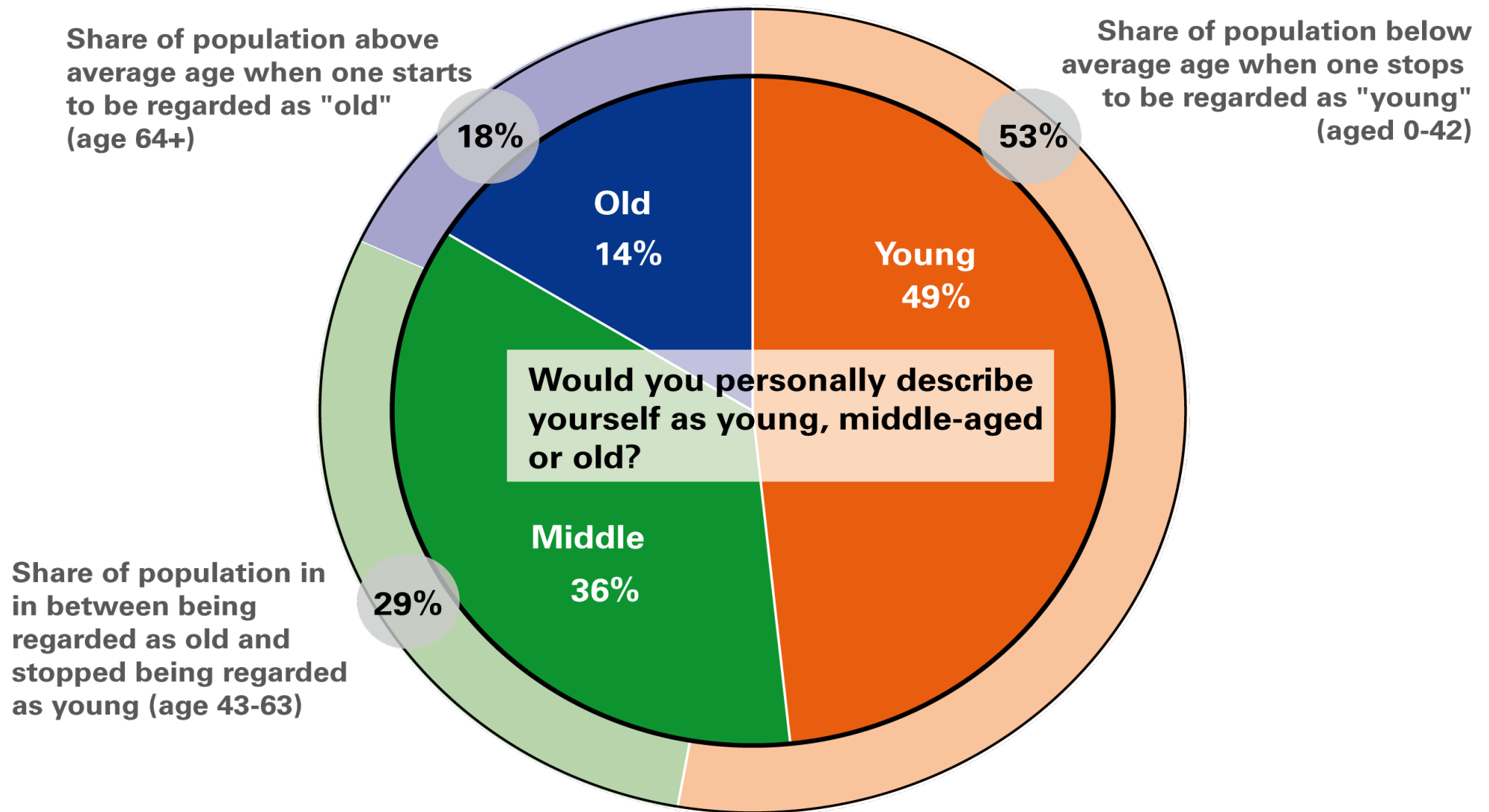
Source: Marin 2013, p 144, own calculations based on SEB 378, OECD Pensions at a Glance 2011, Eurostat

# Underestimated Lifetime Pension Wealth per Capita, due to “Retirement Illusion” or “Pension Illiteracy”, EU+26, 2009



Source: Marin 2013, p 146, own calculations based on SEB 378, OECD Pensions at a Glance 2011, Eurostat

# How Many European People “Are” and How Many Feel “Young”, “Old” and “Middle Aged” ?

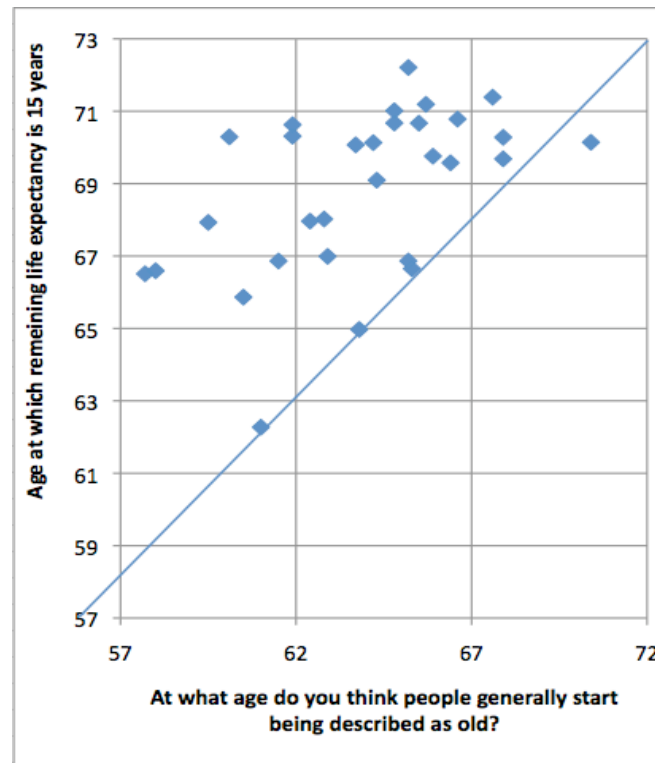
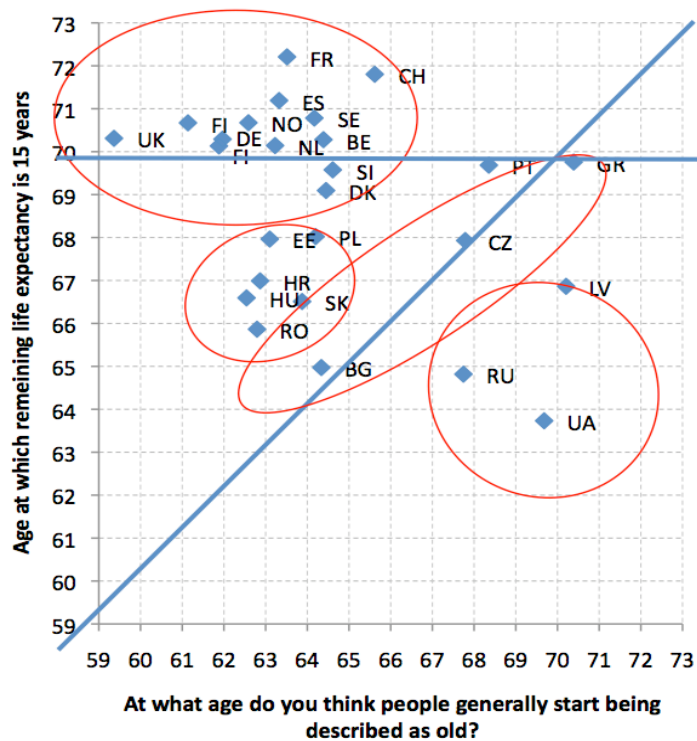


Source: Marin 2013, p 277, own calculations base on SEB 378, Eurostat



# But: Are the Results Reliable?

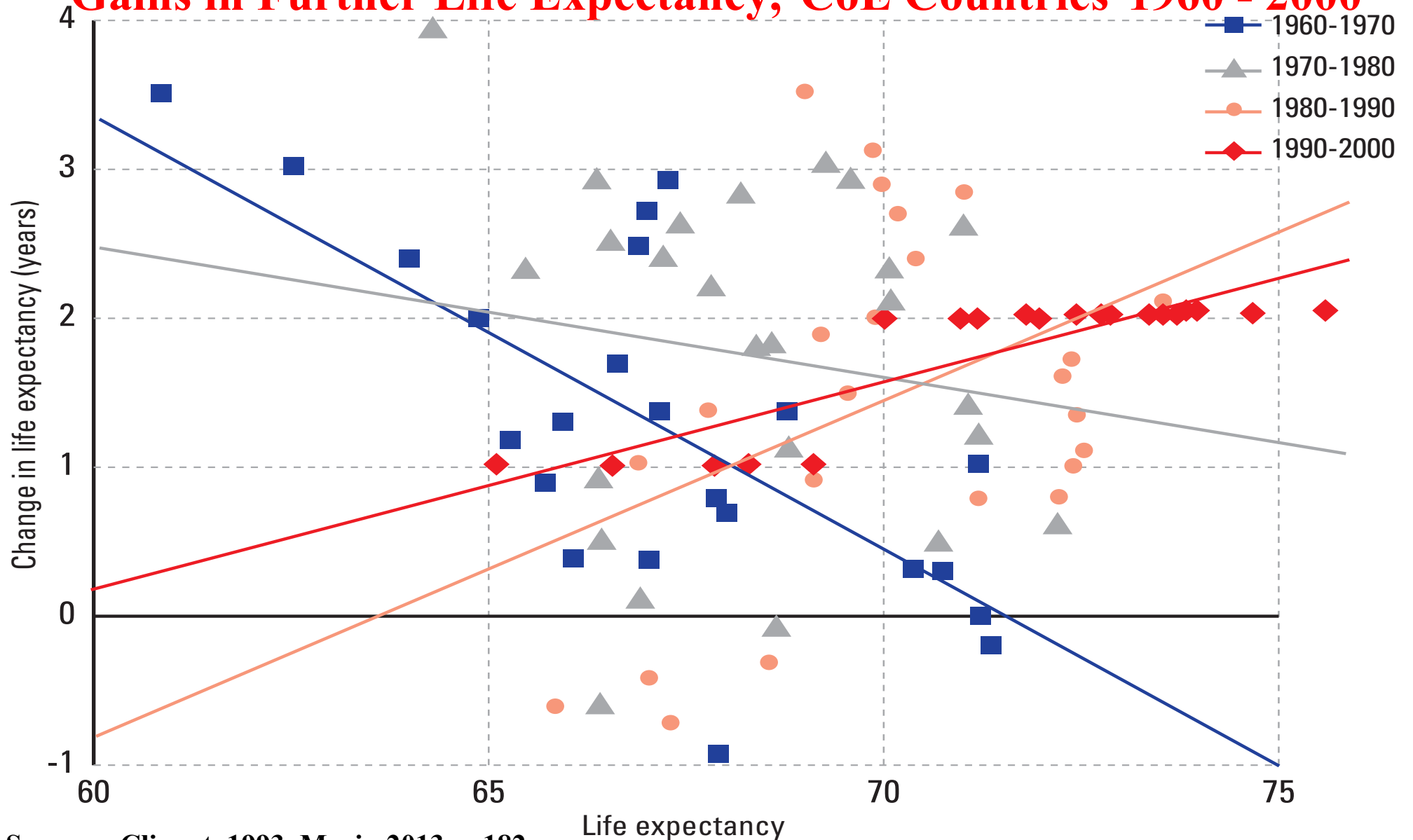
Comparing description of “old”/”young” of two different sources: ESS vs. EB



	EB	ESS	Diff.
AT	62		
BE	68	64	3.5
BG	64	64	-0.5
CY	69	69	-0.4
CZ	60	68	-8.3
DE	60	62	-1.9
DK	64	64	-0.1
EE	62	63	-0.7
EL	66	70	-4.7
ES	66	63	2.2
FI	65	61	4.1
FR	66	64	2.4
HR	63	63	0.0
HU	58	63	-4.5
IE	64	62	2.3
IS	65		
IT	68		
LT	65		
LU	64		
LV	62	70	-8.7
MK	61		
MT	65		
NL	70	63	7.2
NO	65	63	2.2
PL	63	64	-1.4
PT	68	68	-0.5
RO	61	63	-2.3
SE	67	64	2.4
SI	66	65	1.8
SK	58	64	-6.2
TR	58	63	-4.3
UK	62	59	2.5

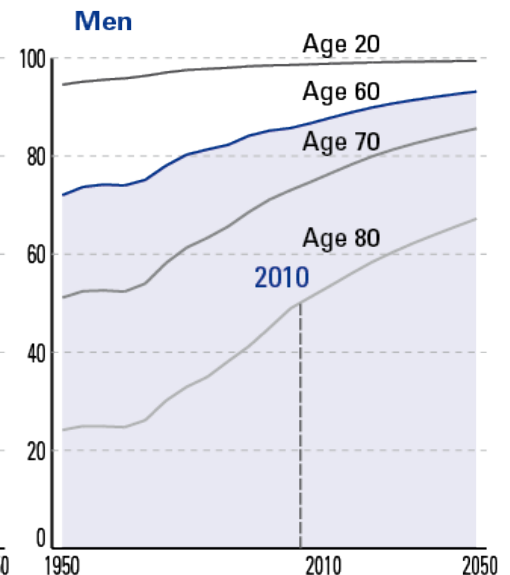
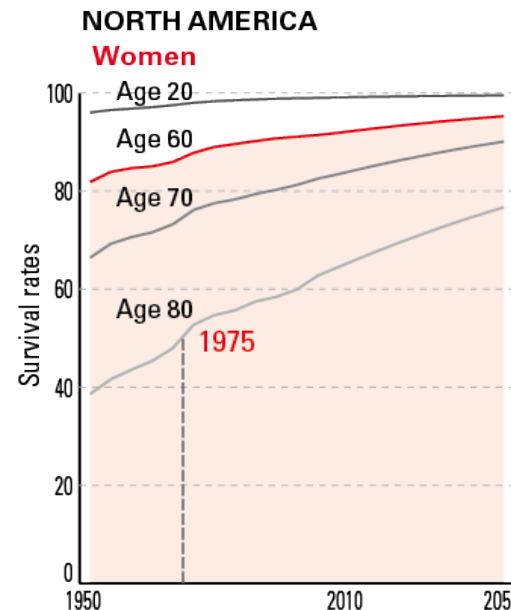
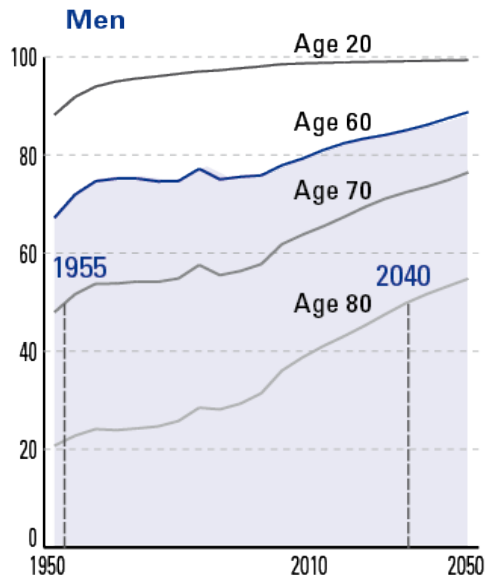
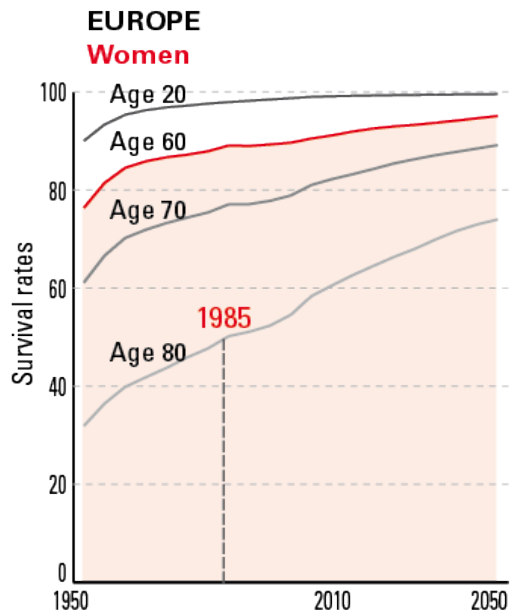
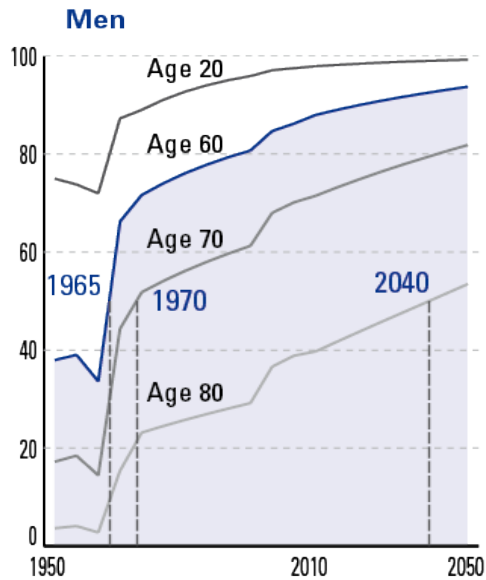
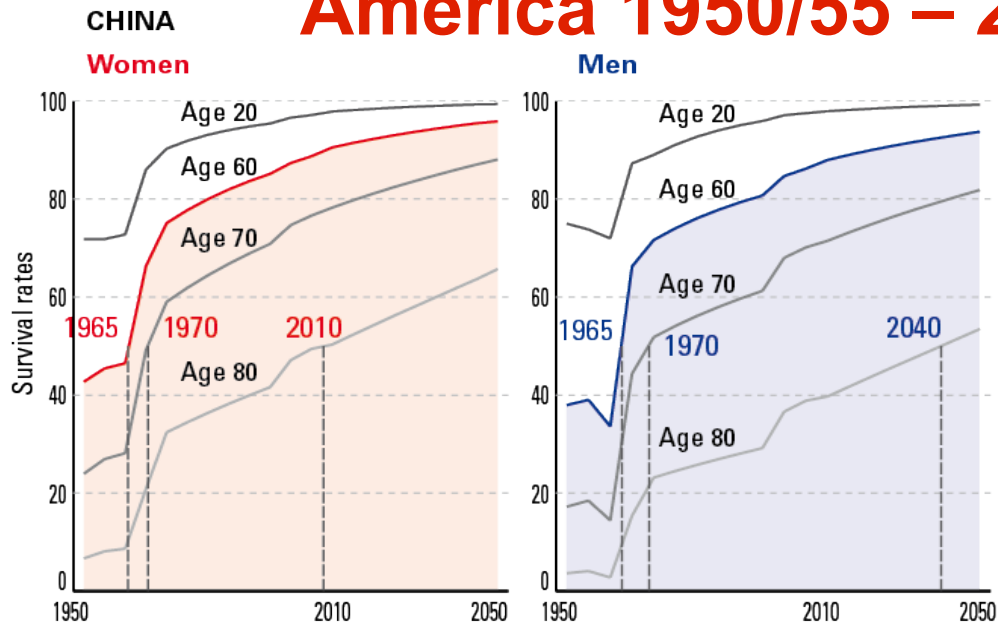
# Convergence vs Polarization. Achieved Life Expectancy and

## Gains in Further Life Expectancy, CoE Countries 1960 - 2000



Sources: Cliquet, 1993, Marin 2013, p 182

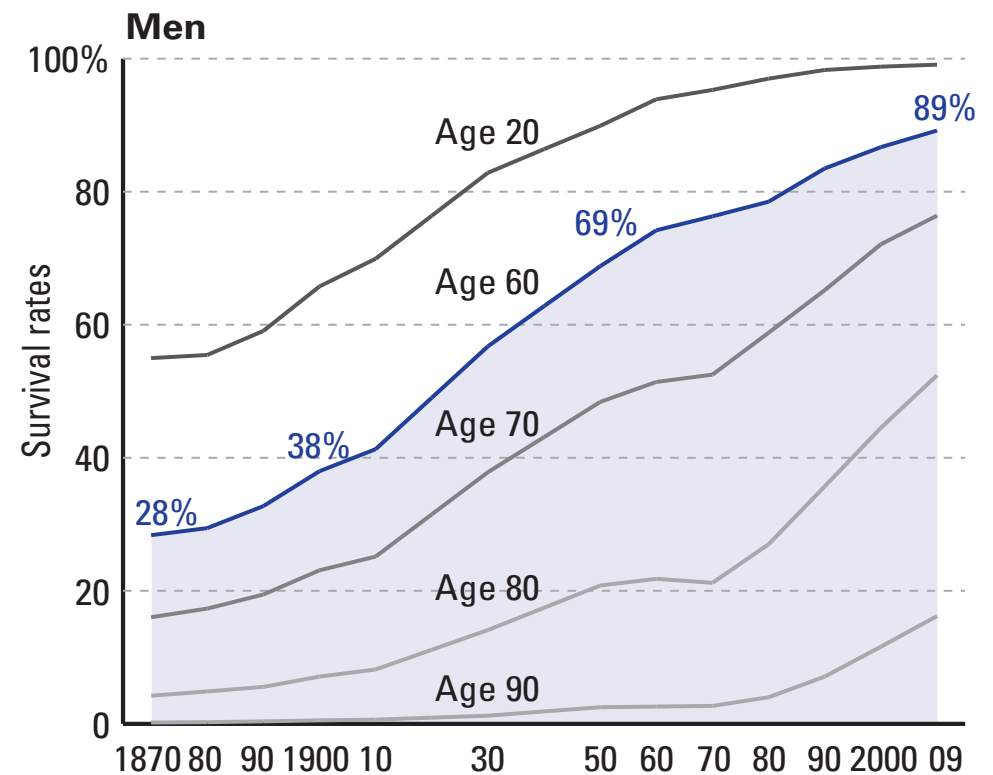
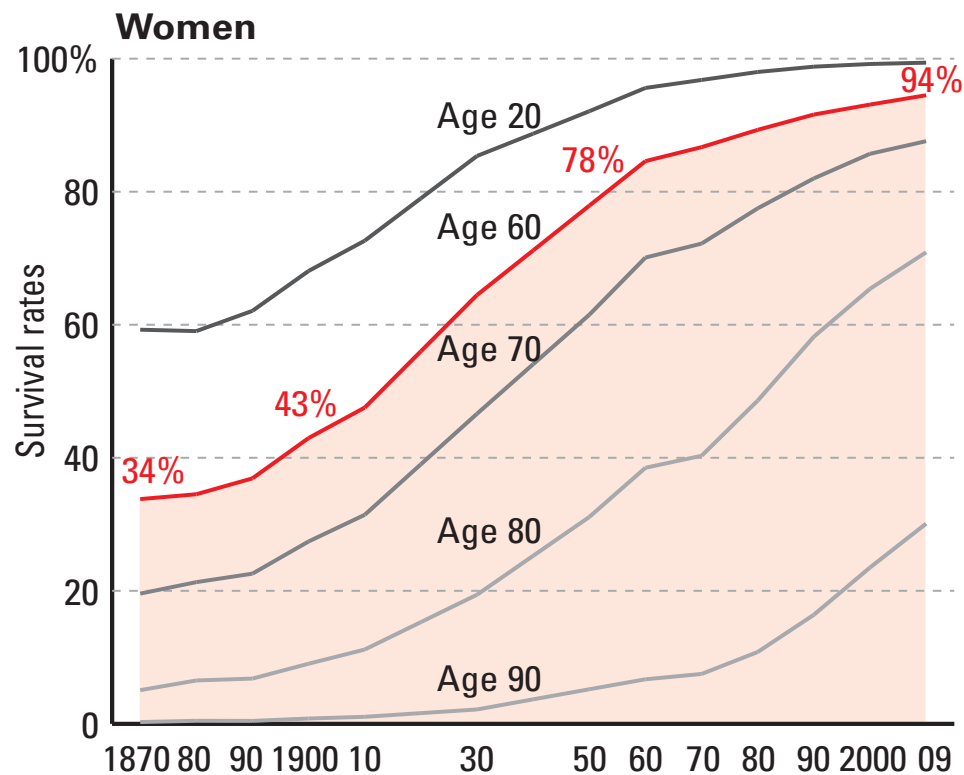
# Survival probabilities, China, Europe, North America 1950/55 – 2010/15 – 2050/55



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Prospects: The 2012 Revision, DVD Edition.

# Survival Probabilities in Austria 1870 – 2009

Percentage of Survivors till a Given Age, Based on Periodic Mortality Rates, by Gender

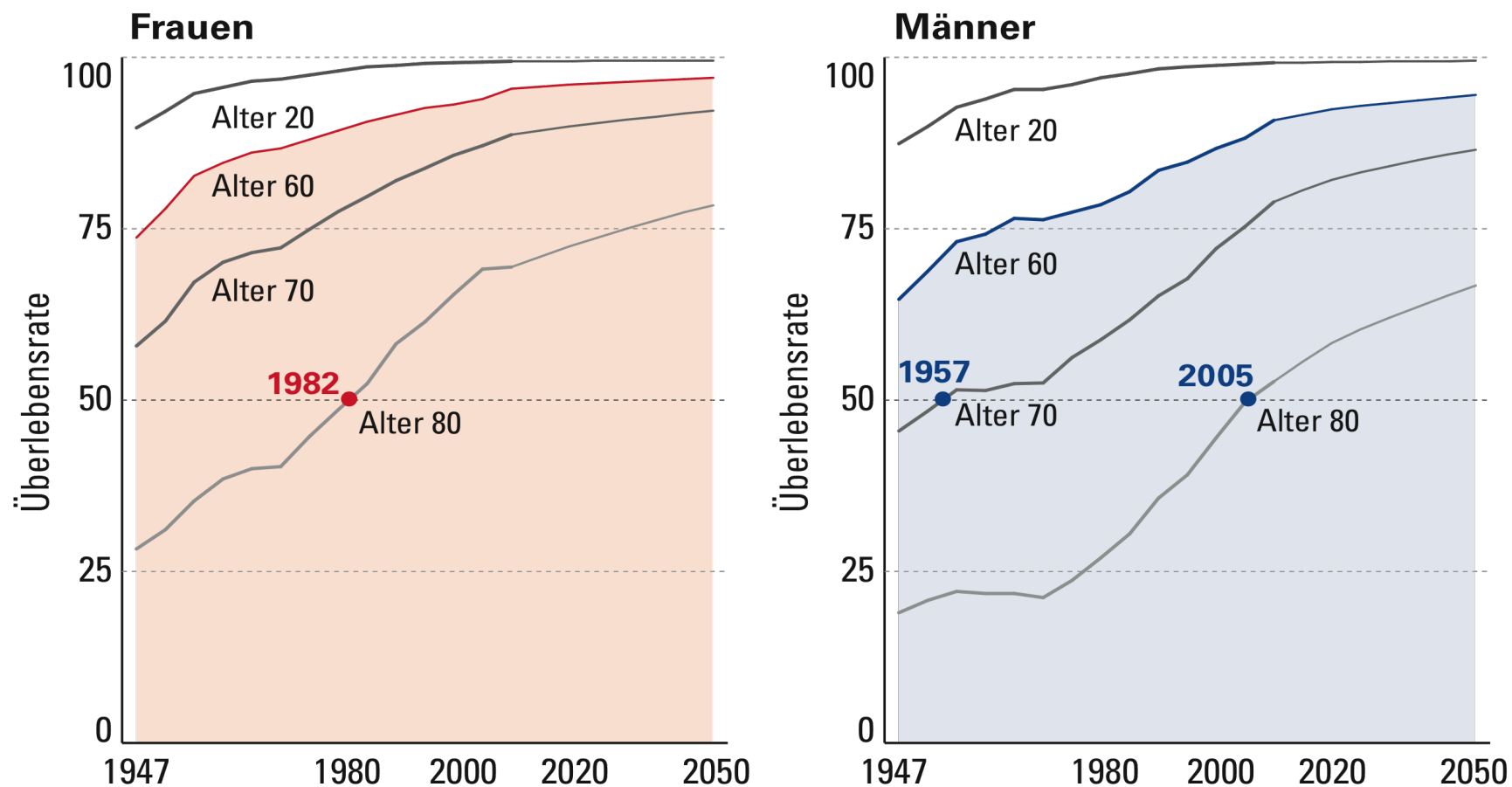


Source: Statistik Austria.

Note: Data for 1870-1930 are 3-year averages. Data for women aged 20 in the year 1900 refers to women aged 21

# Survivors at 20, 60, 70 and 80 Years of Age in Austria, 1947 – 2045/2050

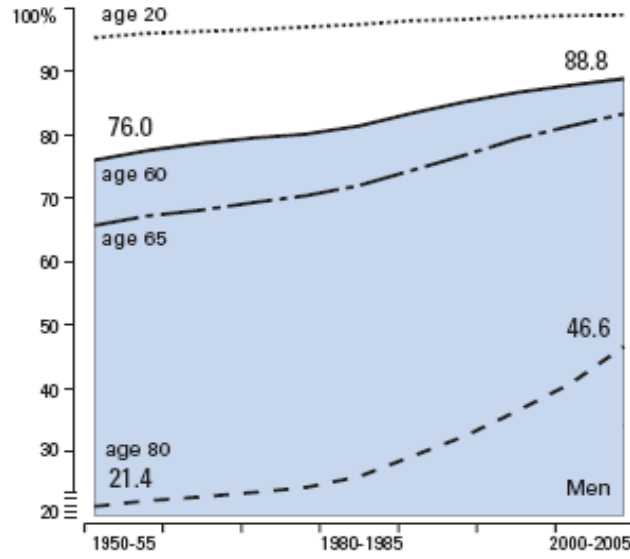
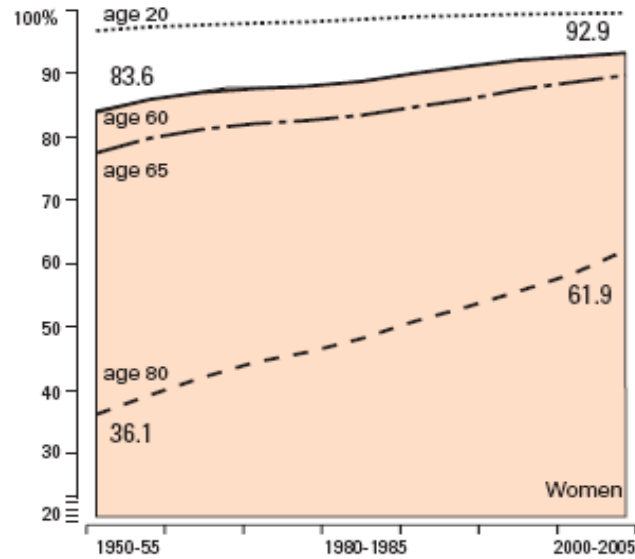
## Survival Probabilities till 20, 60, 70 und 80 Years of Chronological Age



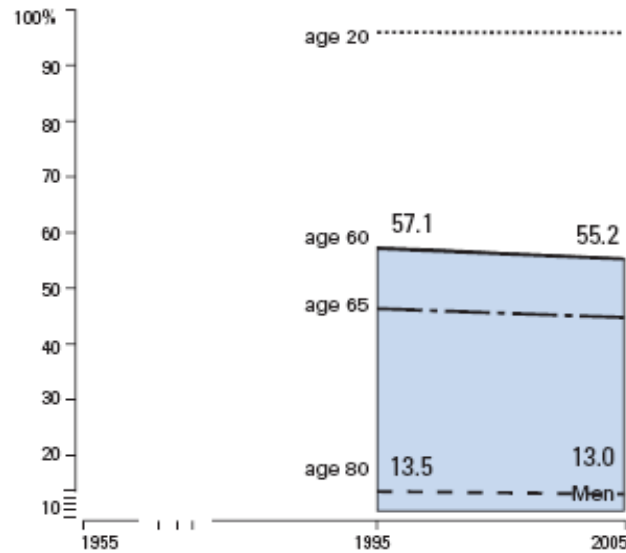
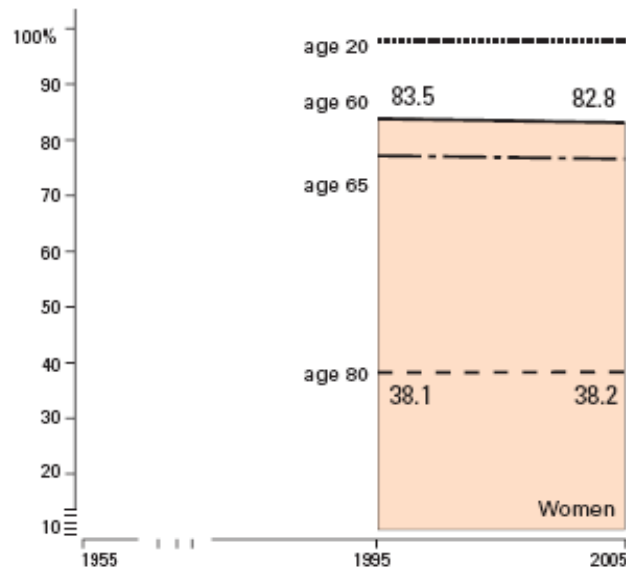
Quelle: STATA, UNDP (für Projektionen; in 5-Jahres Durchschnitten)

# Survival Rates up to Age 20, 60, 65, 80, 1995-2005

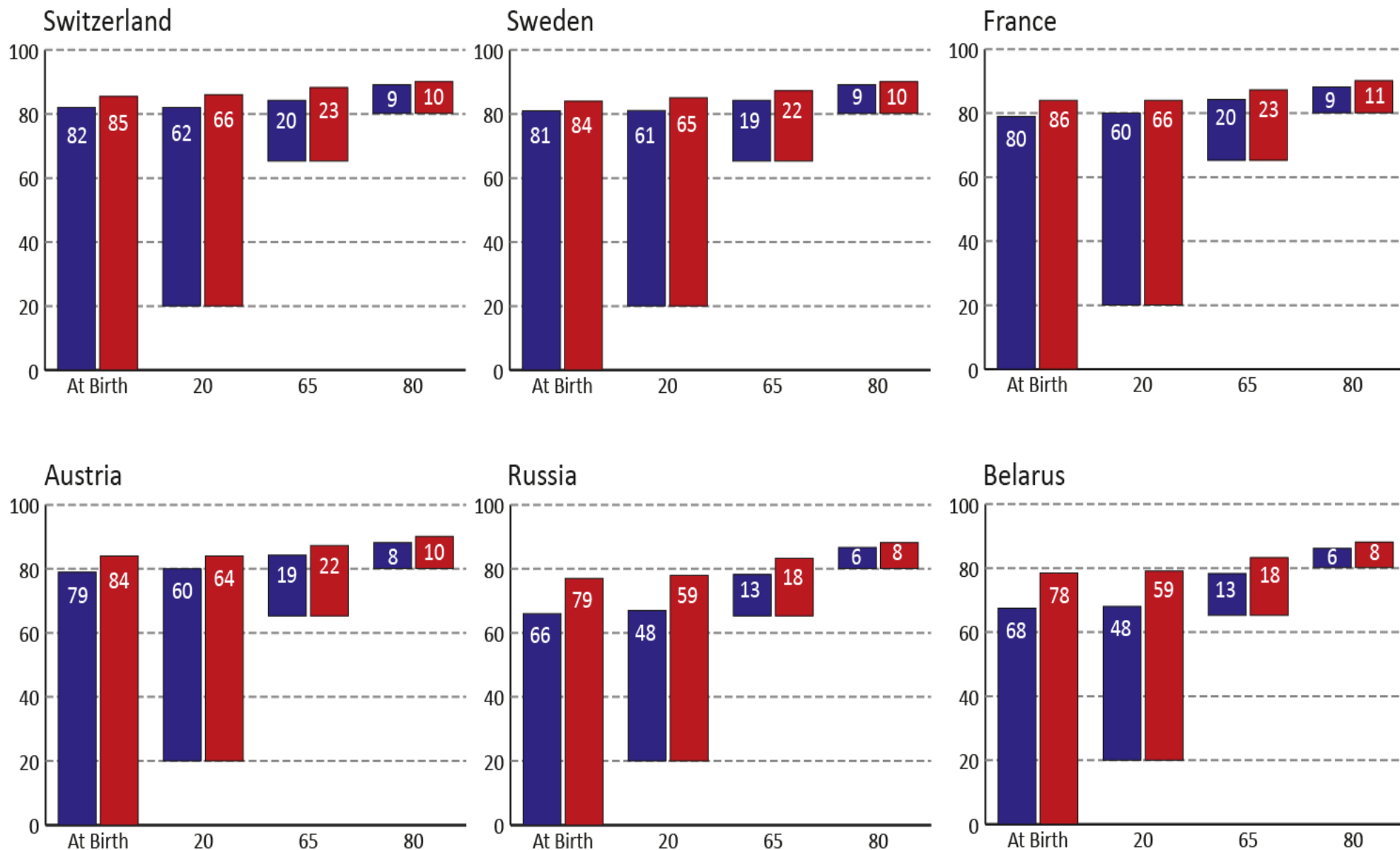
## Great Britain



## Russia



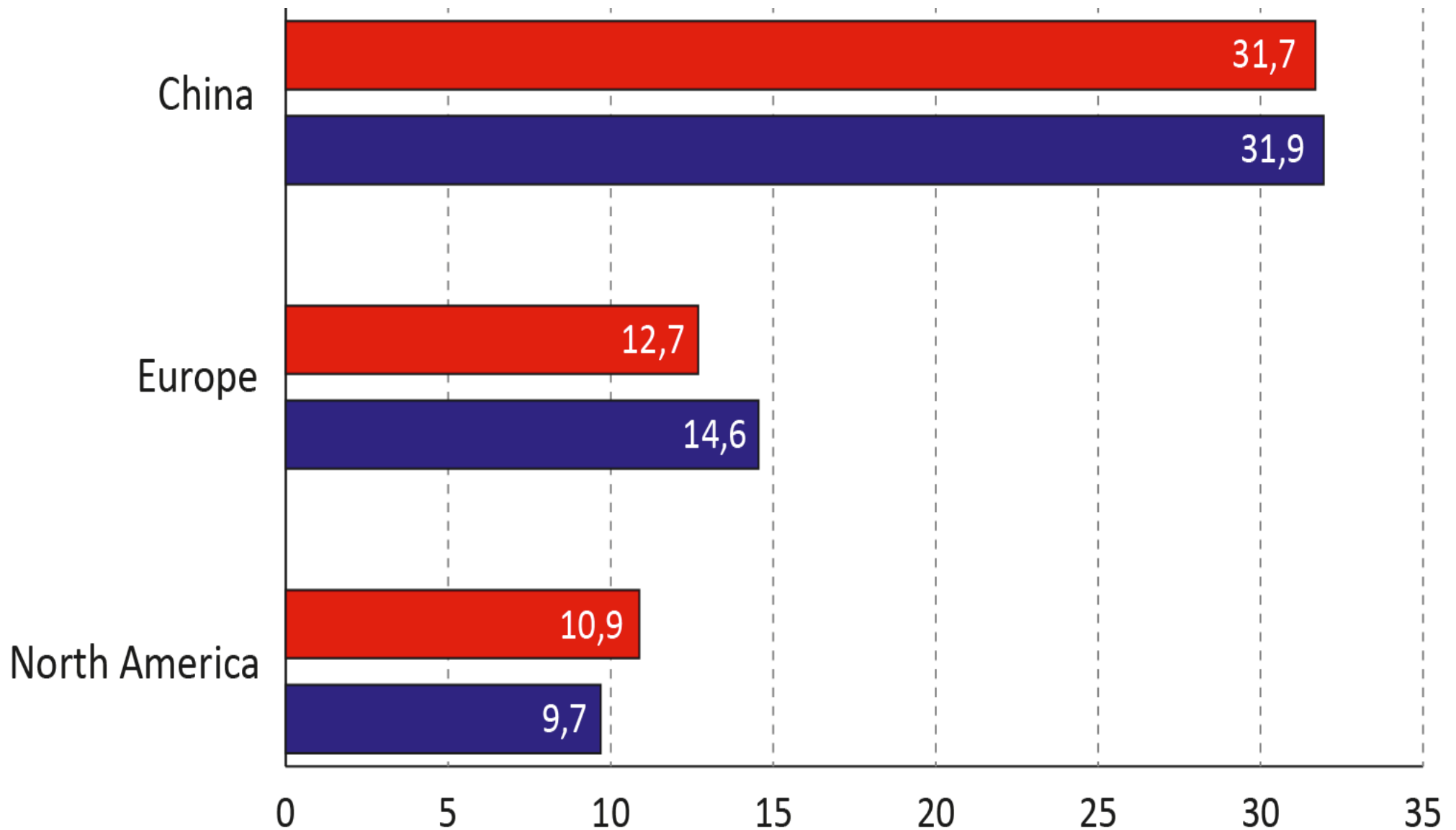
## Life Expectancy at Birth, and at Chronological Age 20, 65 and 80, 2017



**Source: UN World Population Prospects 2017**

# Gained Years in Life Expectancy at Birth, by Gender

## China, Europe, North America, 1950/1955 - 2010/2015

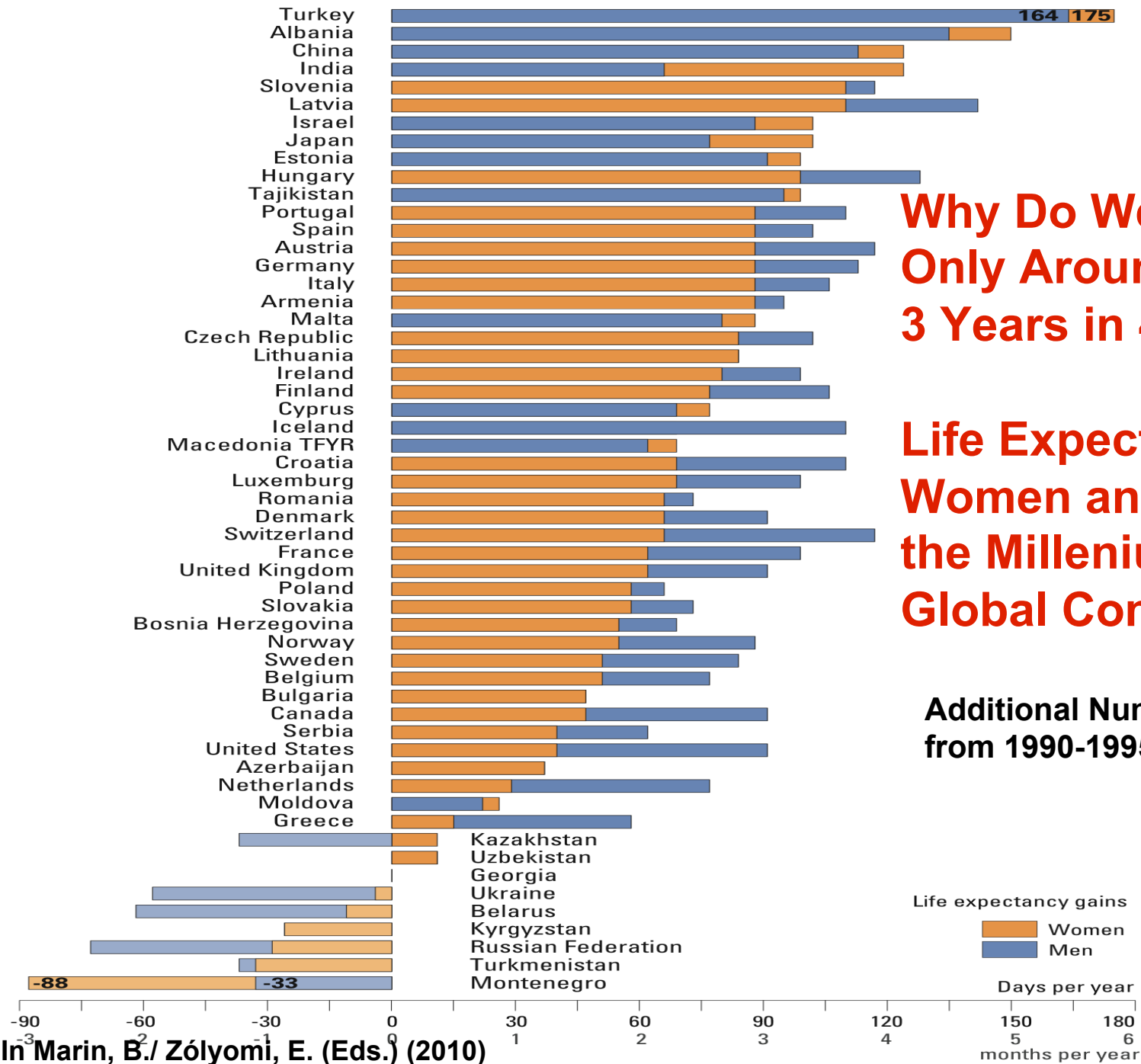


Source: UN, World Population Prospects, 2017



Why do we currently age only 2 years  
within 3 years time – or so ?

Most recent gains in life expectancy  
1995 – 2015



## Why Do We Currently Age Only Around 3 Years in 4 Years Time?

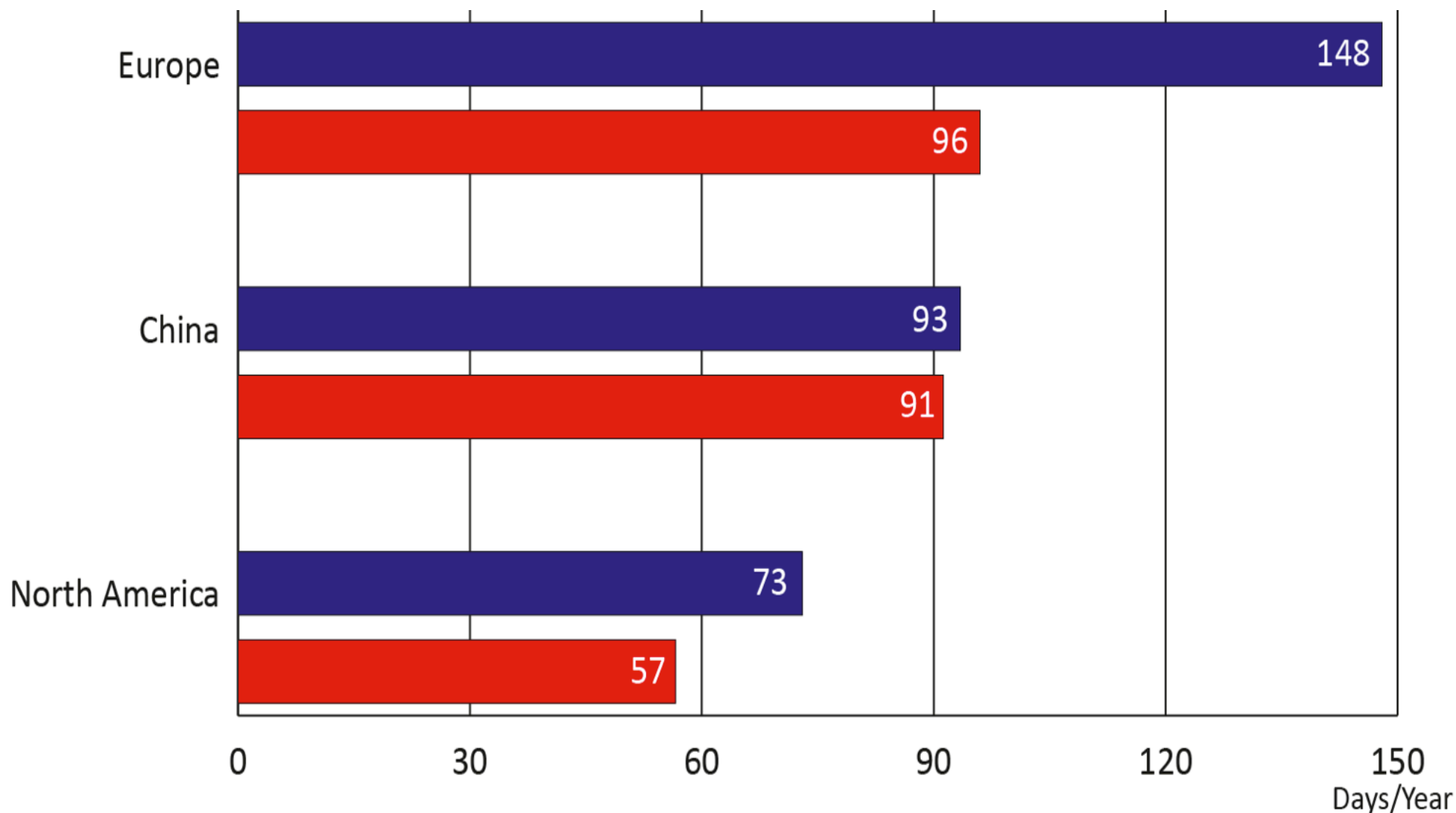
## Life Expectancy Gains of Women and Men Around the Millenium Decade: A Global Comparison

Additional Number of Days p.a. from 1990-1995 to 2000-2005

Life expectancy gains  
 Women  
 Men

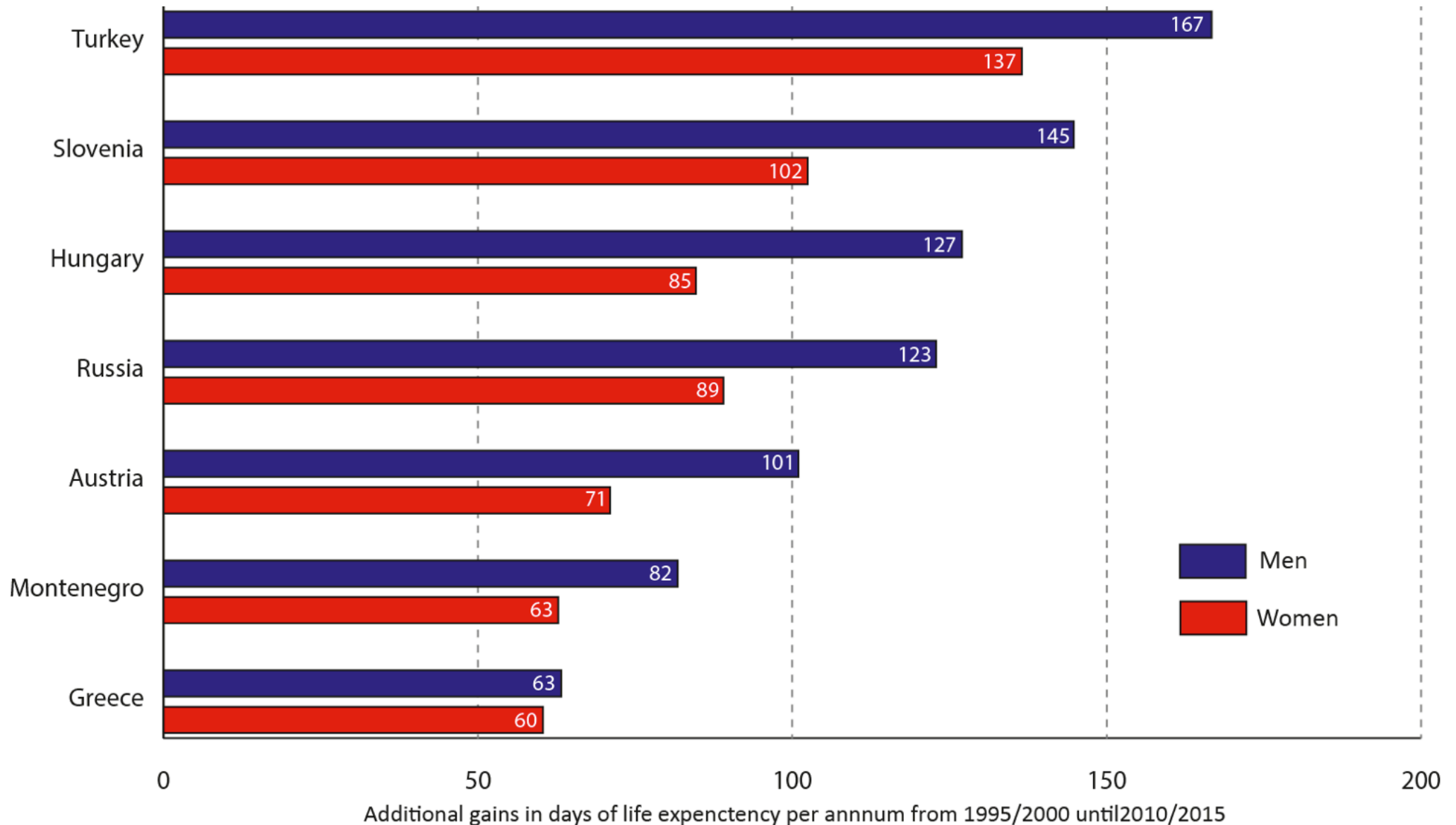
Days per year  
 months per year

## Why Are Europeans Ageing Only Around 3 Years in 4 Years Time? Life Expectancy Gains in Days Per Year Since the Millenium, 2000 - 2015



Source: UN, World Population Prospects - 2017 Revision

## Why Are Turkish People Currently Ageing Only 3 Years Within 5 Years Time Life Expectancy Gains in Days per Year After the Millenium Decade: 1995/2000 – 2010/2015

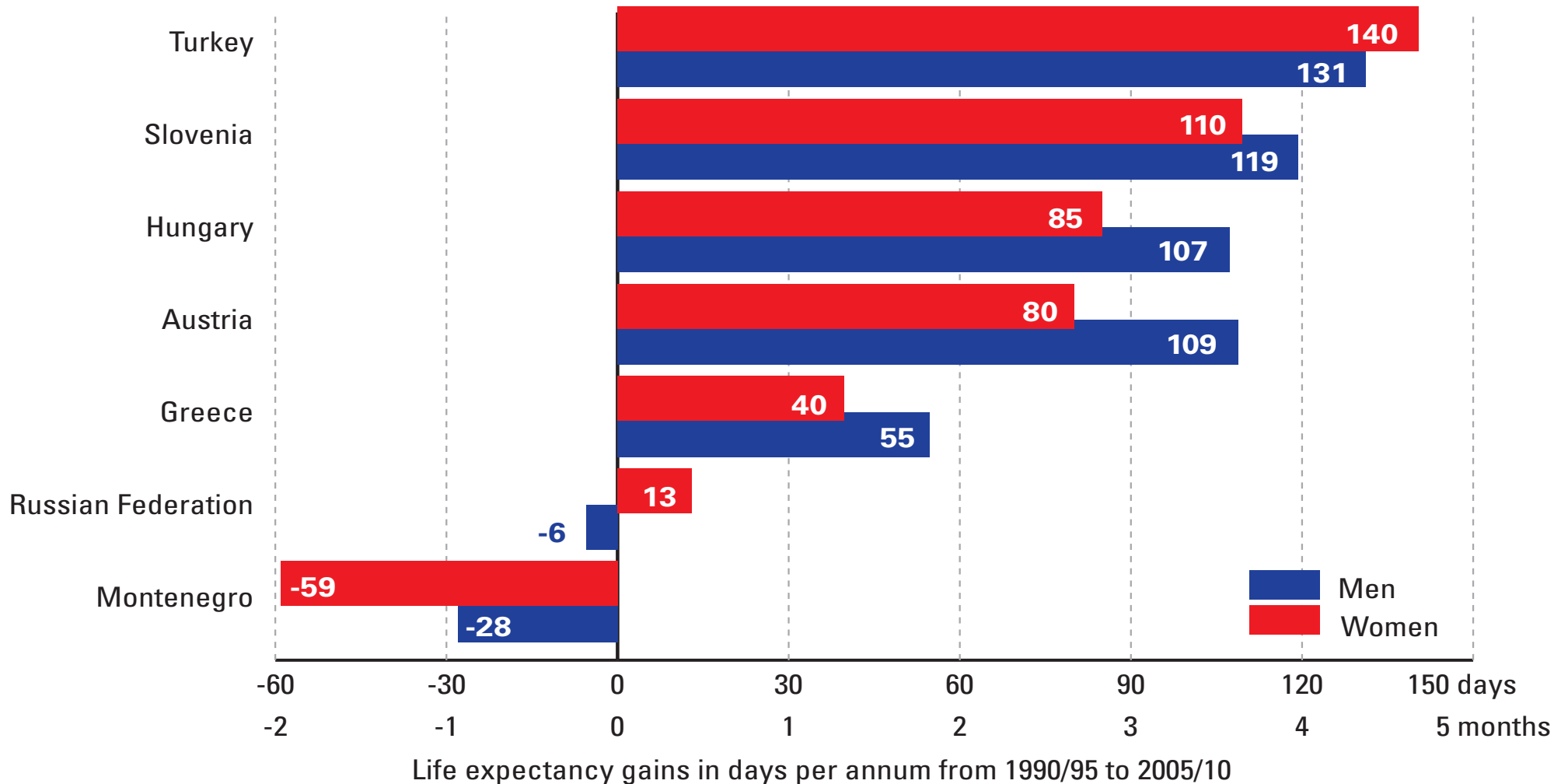


Source: UN World Population Prospects, 2017 Revision

# Why Were Slovenians Recently Ageing

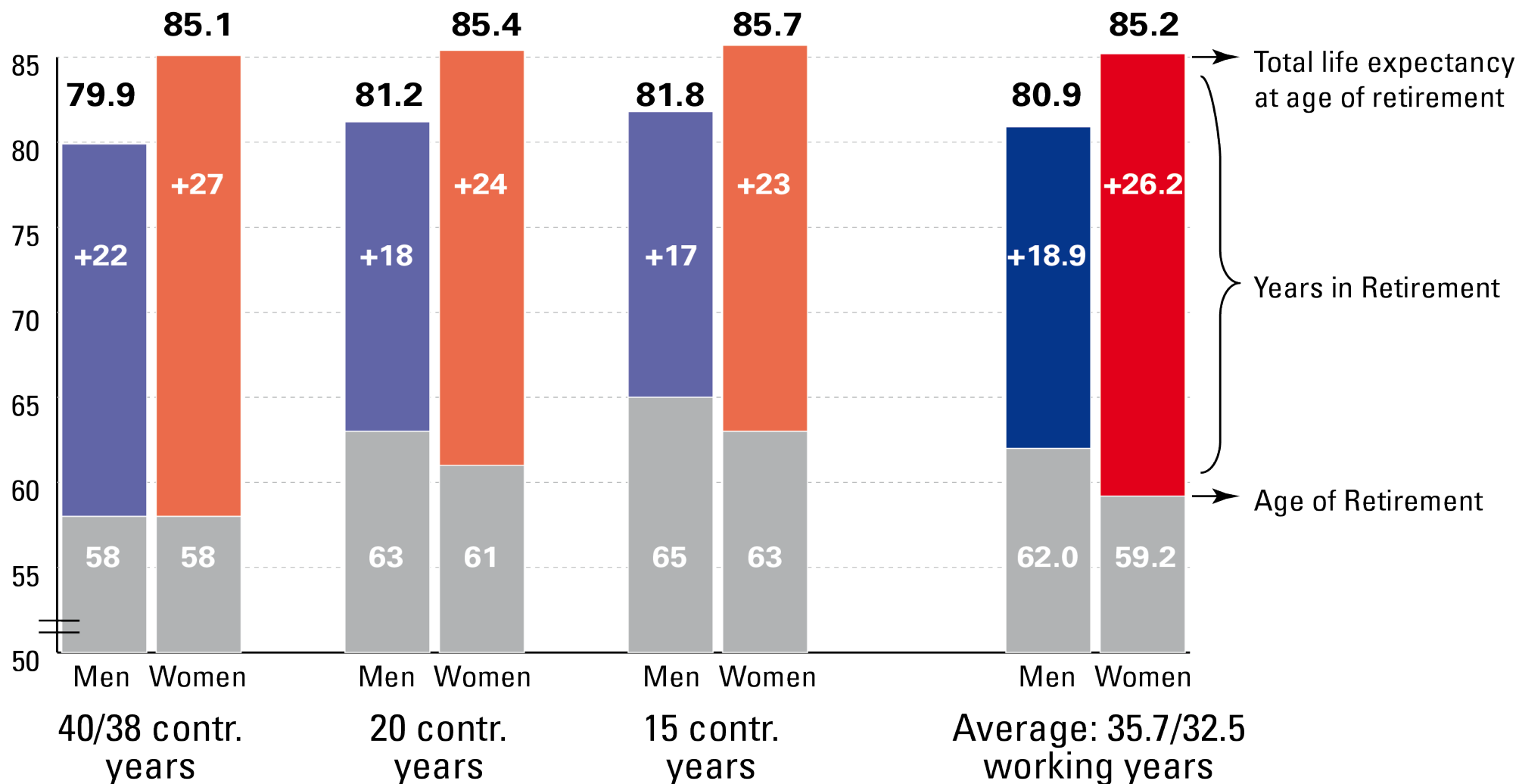
## Only 2 Years Within 3 Years Time (1990/1995 – 2005/2010)

Life Expectancy Gains in Days per Year Around the Millenium Decade



Source: U.N. World Population Prospects, The 2008 & 2006 Revision

# Pension Duration of People Retiring 2010 in Slovenia after 15, 20 and 40/38 Contribution Years at Ages 65/63, 63/61, 58/58 – and on average at Age 62.0/59.2



Sources: Bernd Marin 2013 and Eurostat

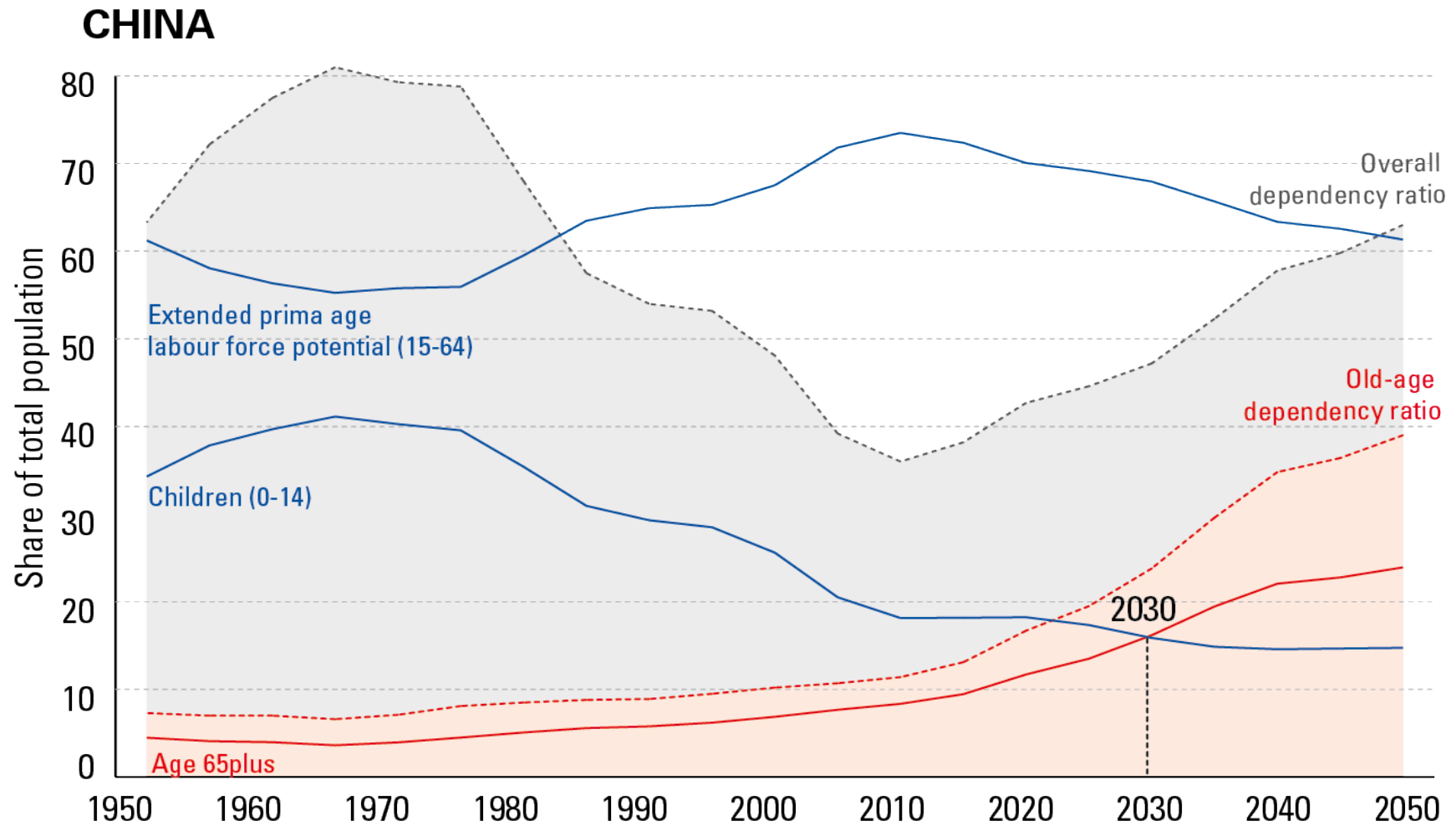
## Remaining / Total Life Expectancy in a Long-living Society Austria 2008 and 2050 as a Case in Point

	2008		2050	
Men 60	21.3	81.3	27.5	87.5
Men 65	17.5	82.5	23.1	88.1
Women 60	25.1	85.1	30.8	90.8
Women 65	20.8	85.8	26.1	91.1

S: Statistik Austria

# CHINA

## Age distribution, overall dependency ratio, and old-age dependency ratio, 1950 - 2050



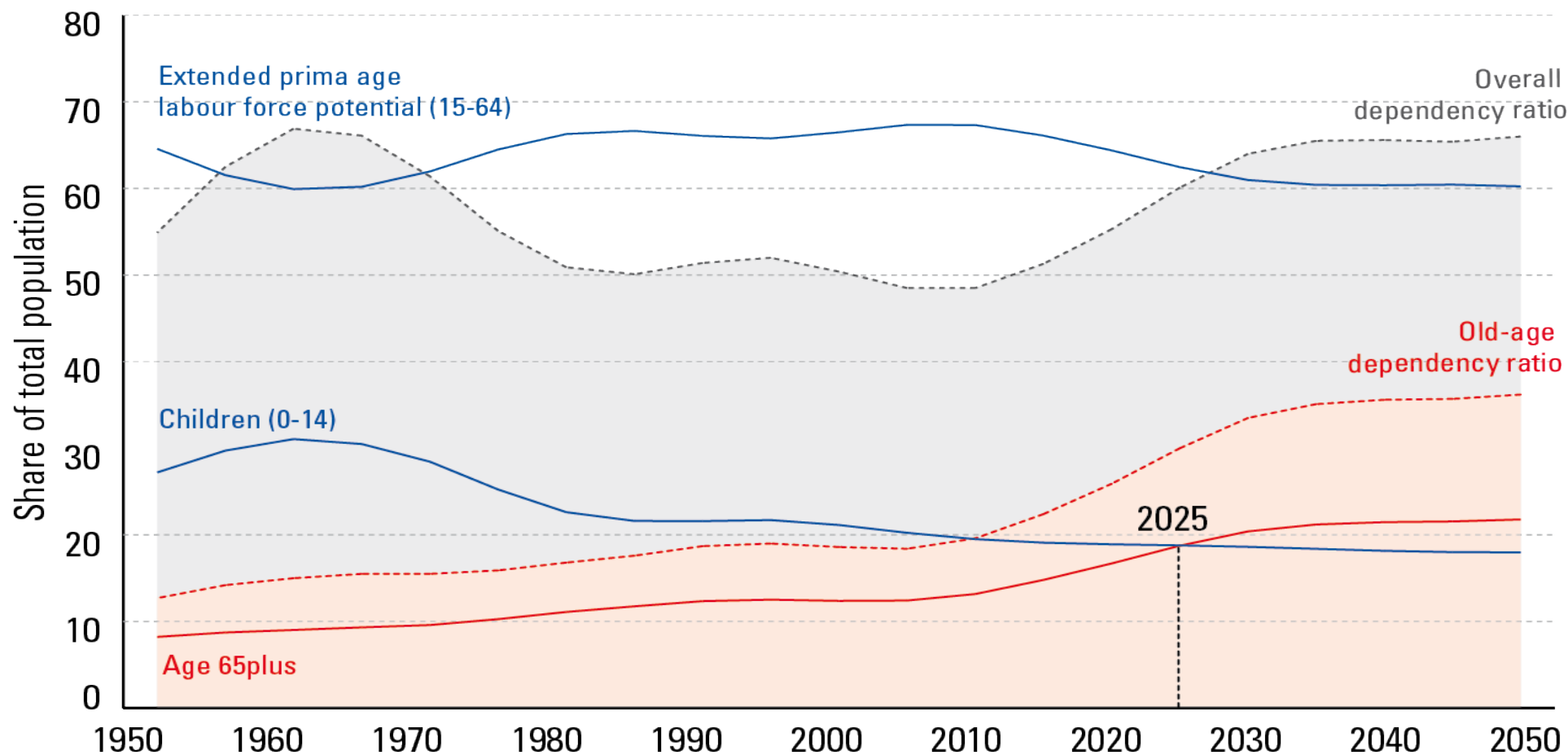
Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Prospects: The 2012 Revision, DVD Edition.



# NORTH AMERICA

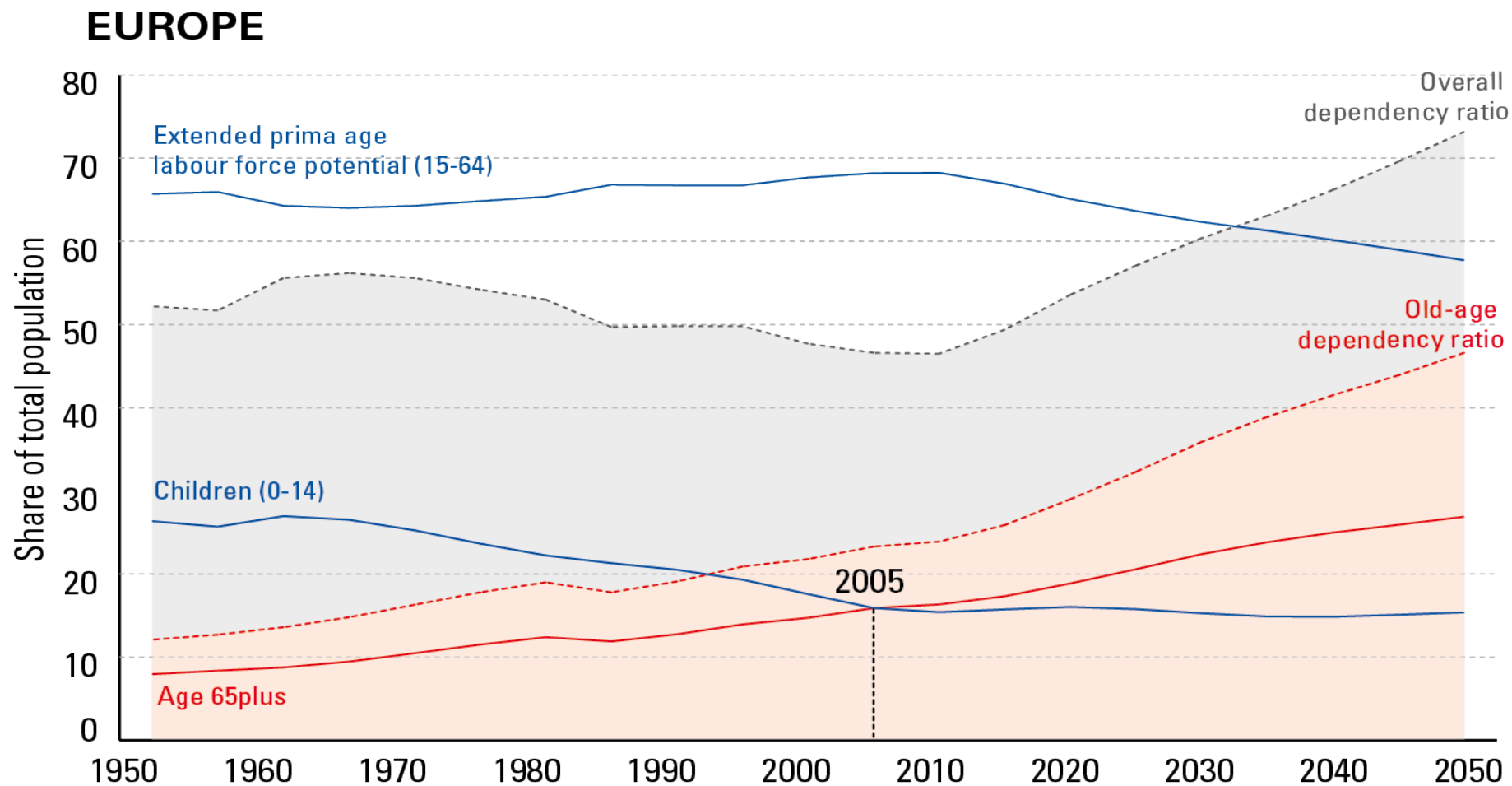
Age distribution, overall dependency ratio, and old-age dependency ratio, 1950 - 2050

## NORTH AMERICA



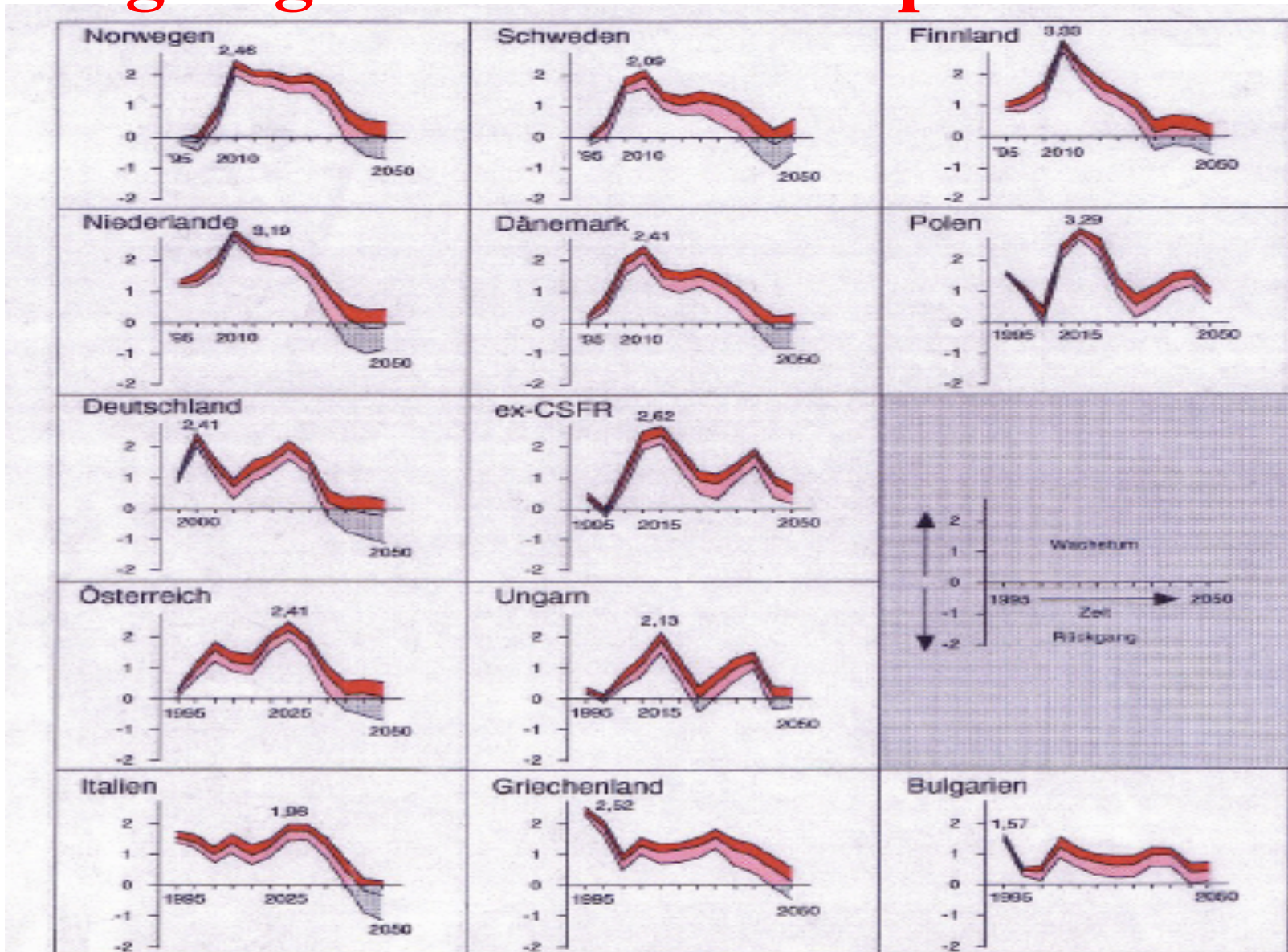
# EUROPE

## Age distribution, overall dependency ratio, and old-age dependency ratio, 1950 - 2050



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Prospects: The 2012 Revision, DVD Edition.

# Historical Timing: When will the Ageing Process in Europe Reach Its Peak?

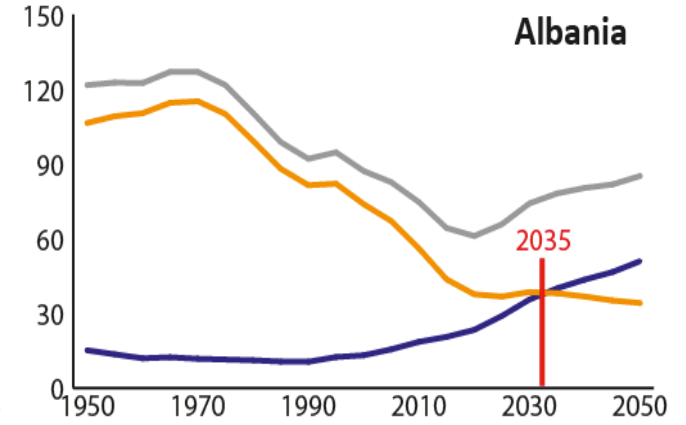
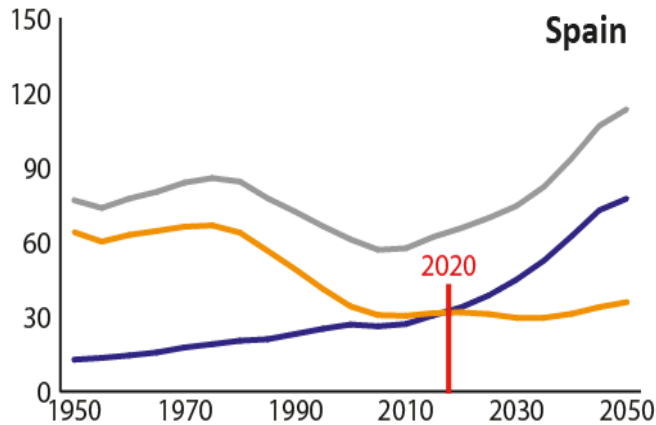
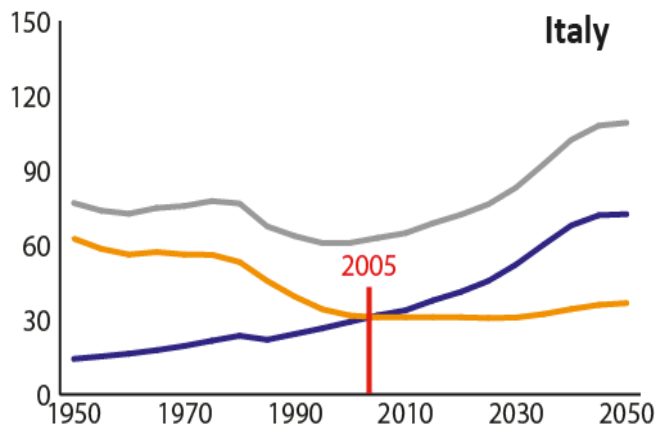
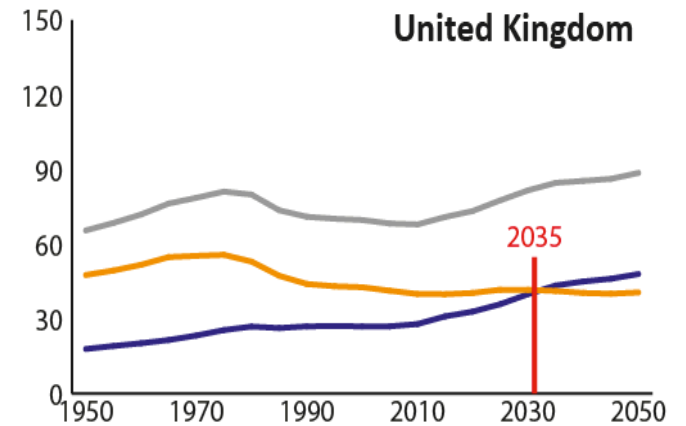
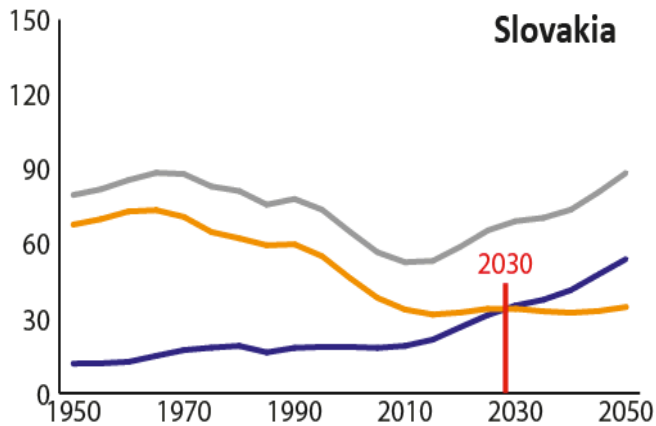
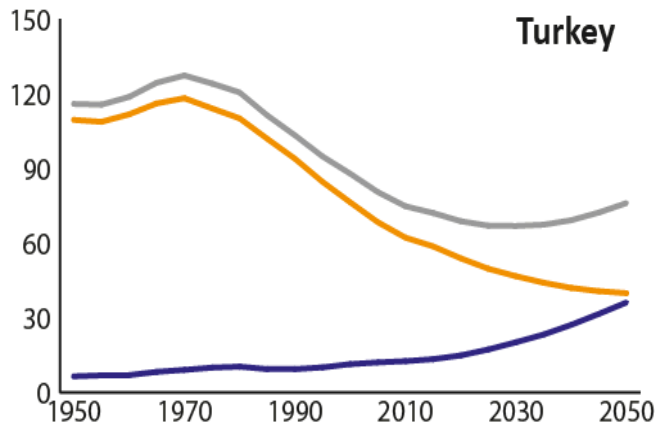


Average Annual Growth of Population 60+ in Three Scenarios

# As If There Were One Ageing Europe

## Diverse Historical Timing of Population Ageing: Year when OADR>YADR

- Total Dependency Ratio
- Young Age Dependency Ratio (0-19)
- Old Age Dependency Ratio (65+)



Source: UN World Population Prospects, 2017

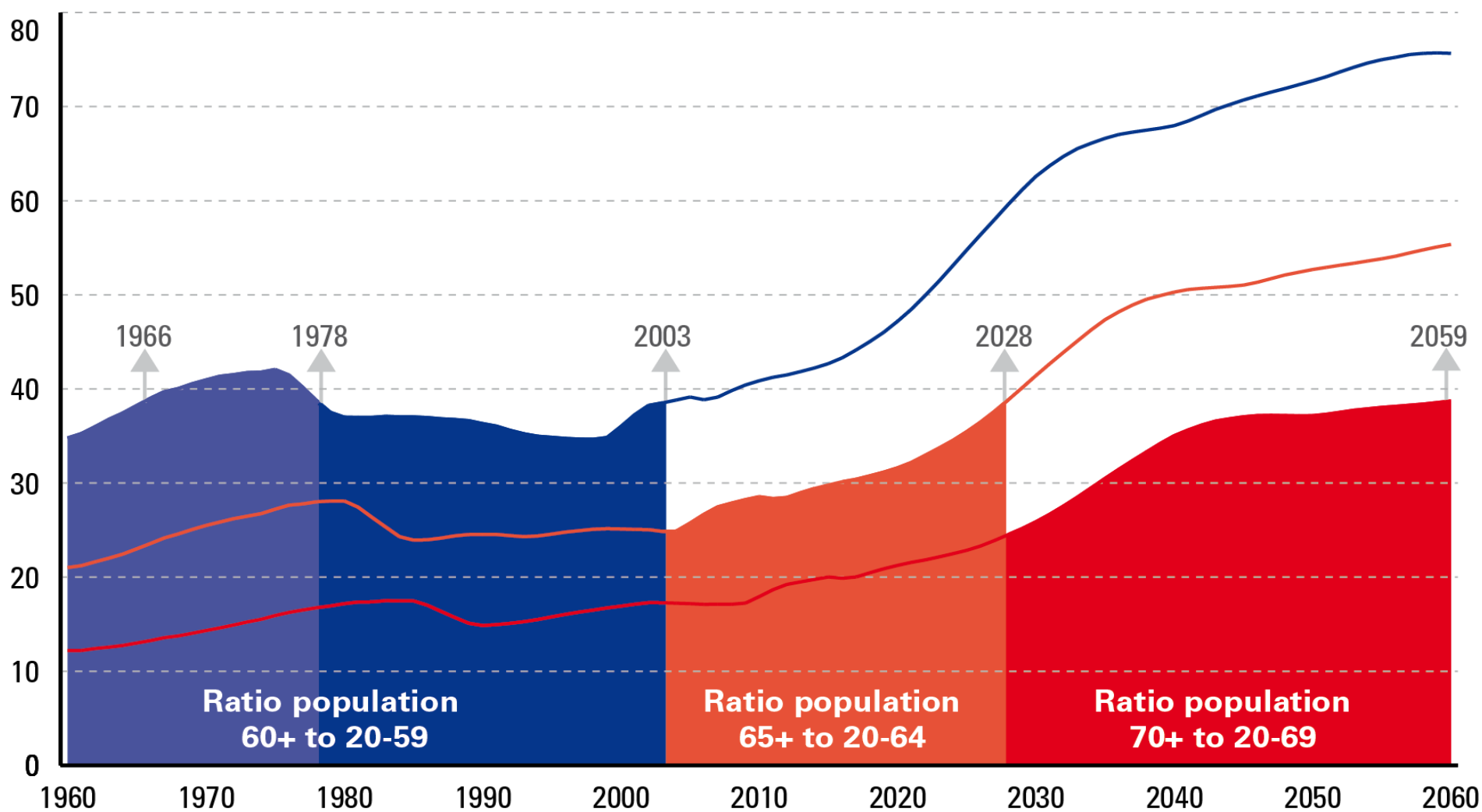
# Old-Age Dependency Ratios EU-25 and Austria from 1960 to 2050

EU-25	1960	1980	1990	2004	2025	2050
Population 60+/20-59	28%	33%	35%	<b>39%</b>	58%	80%
Population 65+/20-64	15%	21%	23%	27%	<b>39%</b>	58%
Population 70+/20-69	/	/	14%	18%	25%	<b>40%</b>

Österreich	1960	1980	1990	2004	2025	2050
Bevölkerung 60+/20-59	<b>35%</b>	<b>37%</b>	<b>36%</b>	<b>39%</b>	55%	73%
Bevölkerung 65+/20-64	21%	28%	25%	25%	<b>35%</b>	53%
Bevölkerung 70+/20-69	12%	17%	15%	17%	23%	<b>37%</b>

Sources: Olivier Bontout, European Commission, DG Employment, Social Affairs and Equal Opportunities, Extending working lives, Eurostat and own calculations, see Marin 2013, p 225

**Will the Statutory Retirement Age Have to be Raised Every Quarter of a Century for About Five Years? What Eligibility Age is Required to Keep the Old-Age Dependency Ratio Stable?  
Europe 1966 – 1978 – 2003 – 2028 – 2059**



Sources: Bontout 2008, Eurostat, and own calculations, see Marin 2013, p 226



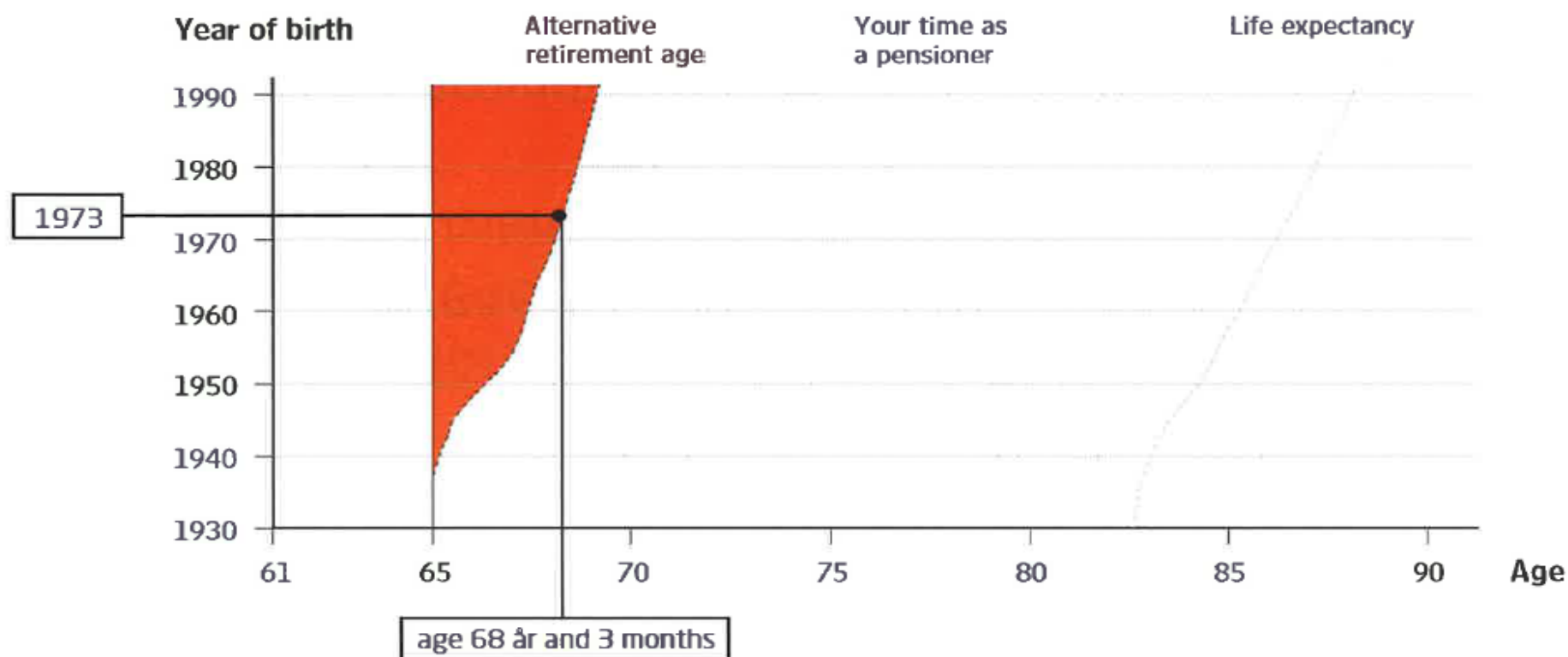
## The Orange Envelope



- Decision – last year's contribution
- Total savings
- Forecasts at different ages
- Premium Pension fund values



**Why 68 years and 3 months?** The life expectancy in Sweden is rising. You, who were born in 1973 need to work until the age of 68 years and 3 months to receive the same pension amount you would have received at age 65 if life expectancy had remained unchanged. Your pension is calculated as your account value divided by the average remaining life expectancy of your age class.





## Life expectancy and retirement age

<b>Birth cohort</b>	<b>...turns 65 in</b>	<b>Life expectancy at 65</b>	<b>Retirement age required</b>	<b>Time spent retired *</b>	<b>...compared to birth cohort 1930</b>
1930	1995	82 yr 5 mo	65 yr	17 yr 5 m	0
1950	2015	85 yr 3 mo	66 yr 4 mo	19 yr 3 mo	+1 yr 10 mo
1960	2025	86 yr 3 mo	67 yr 5 mo	19 yr 5 mo	+2 yr 0 mo
1970	2035	87 yr 3 mo	68 yr 1 mo	19 yr 10 mo	+2 yr 5 mo
1980	2045	88 yr 1 mo	68 yr 8 mo	20 yr 2 mo	+2 yr 9 mo
1990	2055	88 yr 10 mo	69 yr 2 mo	20 yr 5 mo	+3 yr 0 mo

\* Time spent retired is calculated as life expectancy at the required retirement age.



## Forecast for your National Public Pension

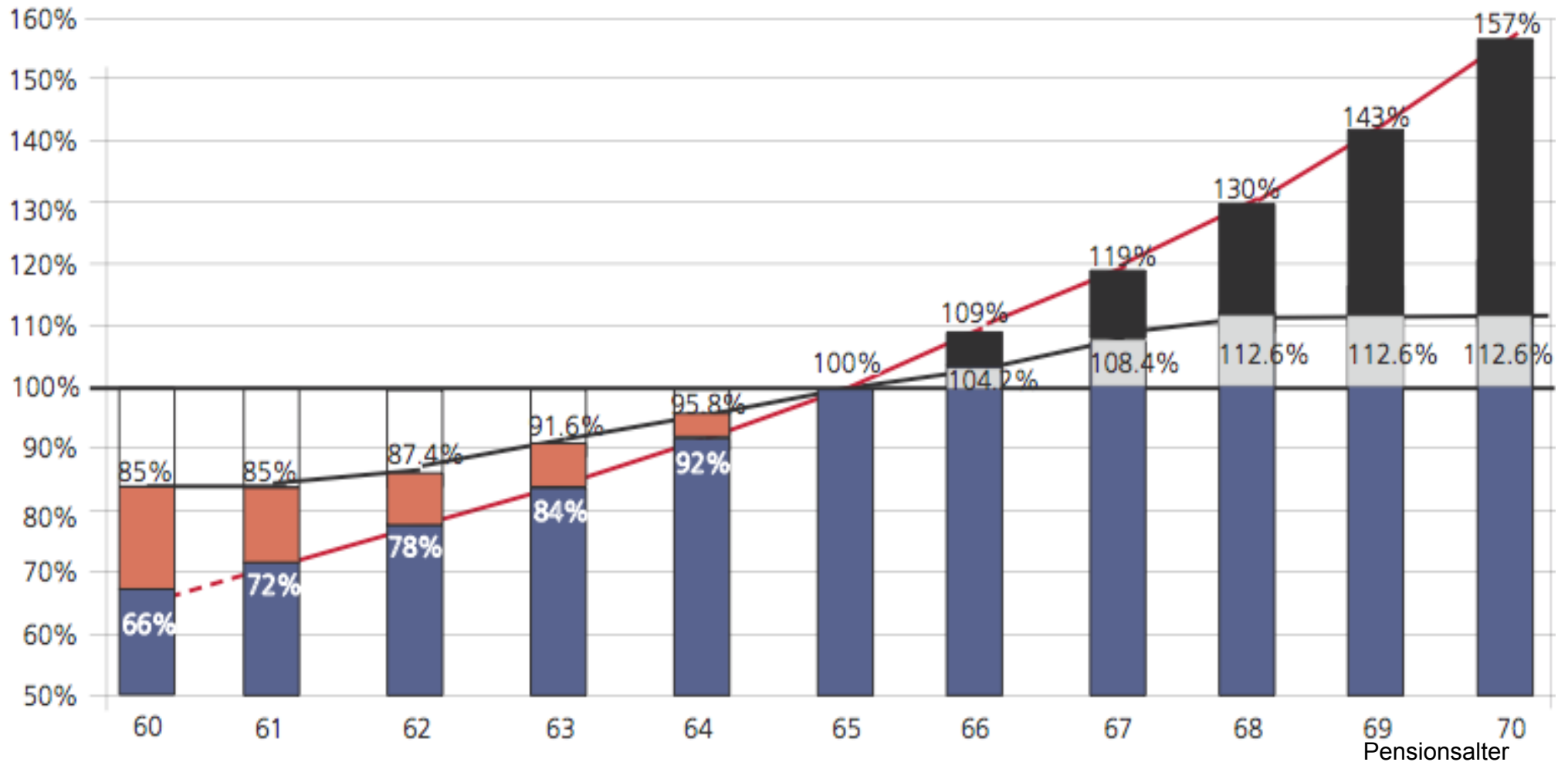
Retirement age	age 61	age 65	age 68 and 3 month	age 70
Amount SEK/month	10 300	13 100	16 000	18 500

Your national public pension from age 65 (SEK 13 100 per month before tax) is estimated at SEK 9 800 in income pension and SEK 3 300 in premium pension. The pension will be paid out for the rest of your life.

Jahr	Renten- eintrittsalter	Geburtsjahr
2035	69	1967 -
2040	70	1971 -
2045	71	1975 -
2050	72	1979 -
2055	73	1983 -
2060	73,5	1987 -
2065	74	1. Juli 1991 -
2070	74,5	1996 -
2075	75	1. Juli 2000 -
2080	75,5	2005 -
2085	76	1. Juli 2009 -
2090	76,5	2014 -
2095	77	1. Juli 2018 -
2100	77,5	2023 -

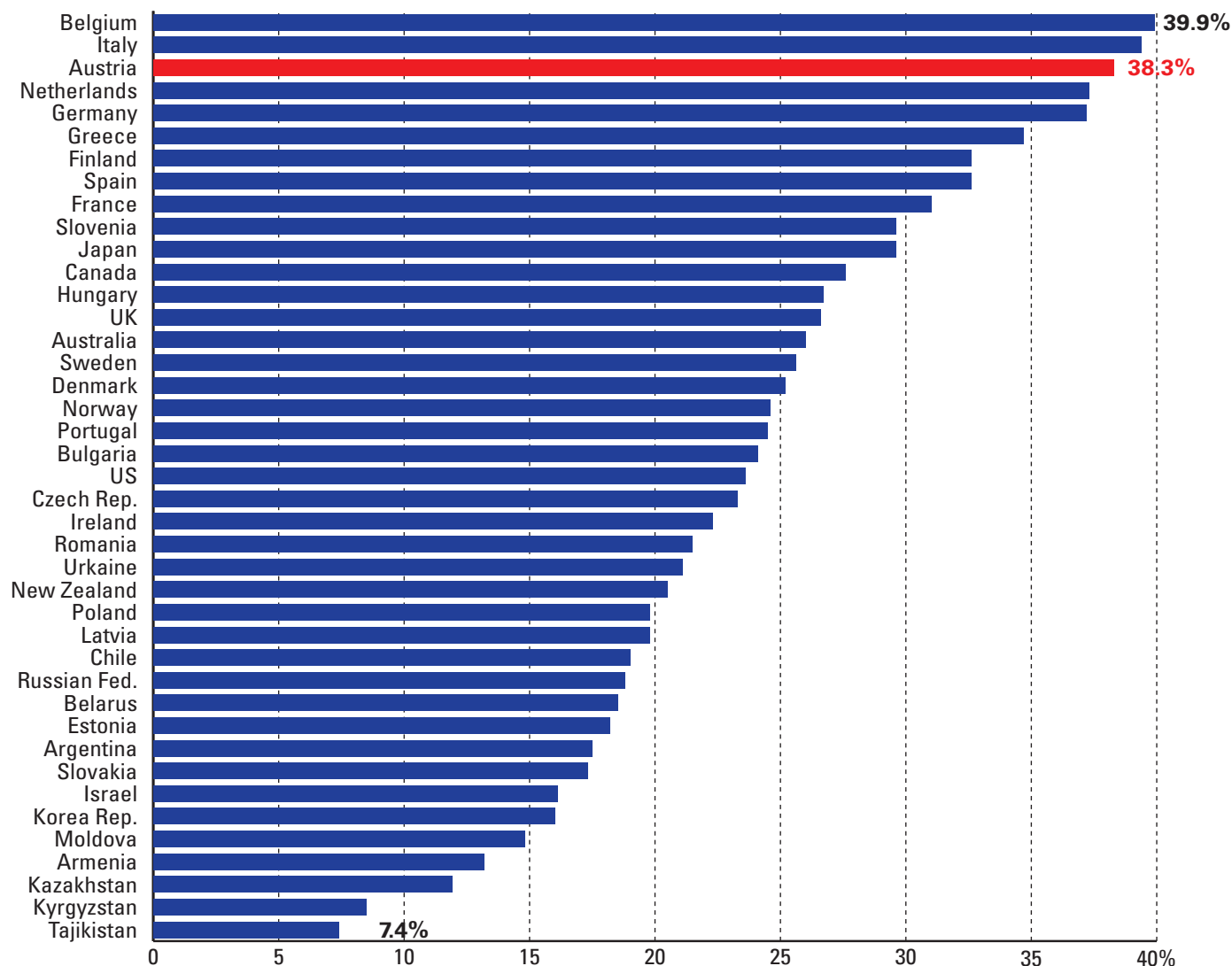
**Age inflation  
and automatic  
increase of legal  
pension age in  
Denmark, for cohorts  
born 1967 – 2023, and  
pensionable age  
2035 to 2100**

## Swedish NDC Actuarial Neutrality vs. Austrian DB, till 2014. Amount of Labour-Depressing Adverse Re-Distribution



Source: Marin 2013

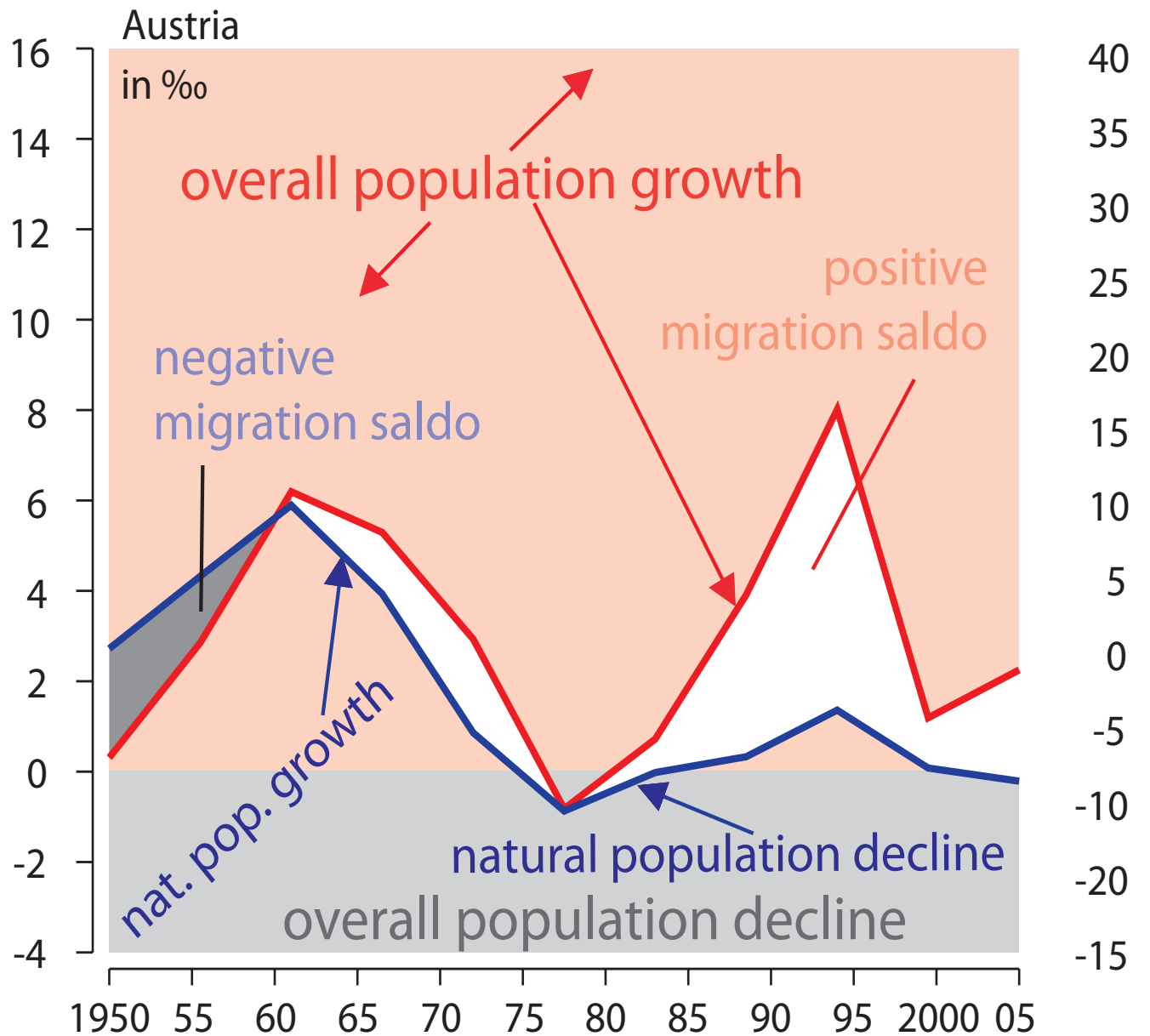
# Life-Cycle Contribution Rates in 35 Countries of the UN-European Region and 6 Comparative Countries in Other Regions, Closest Year to the Millenium

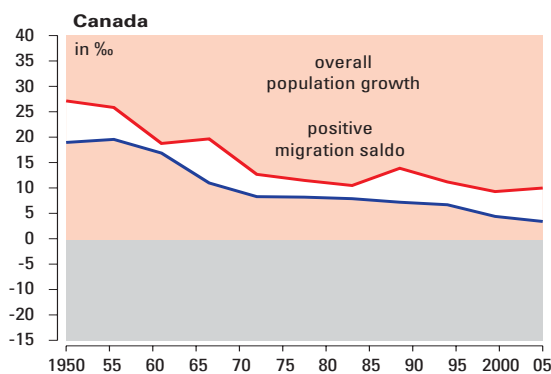
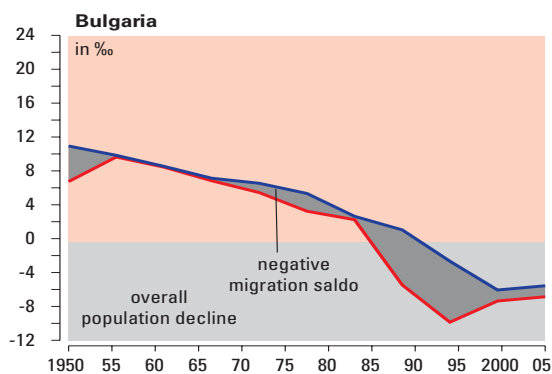
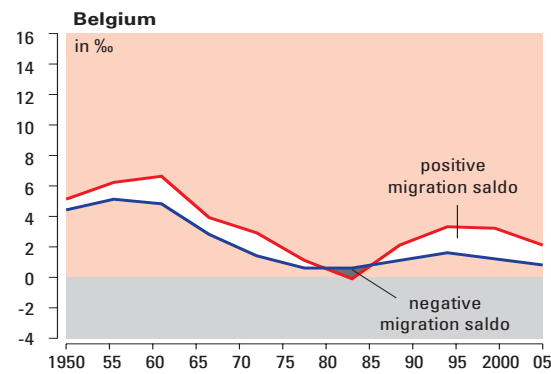
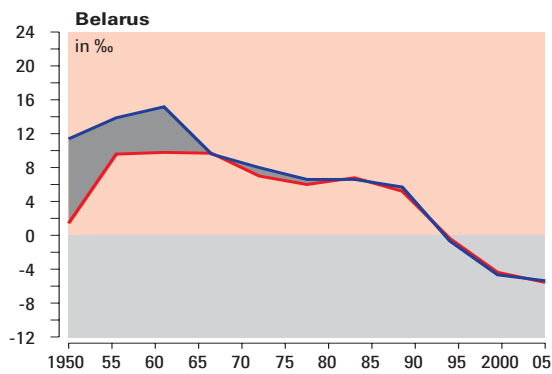
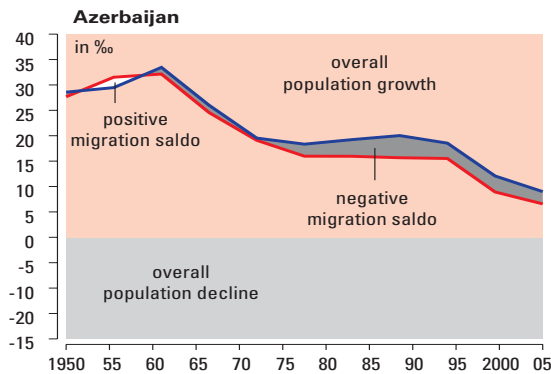
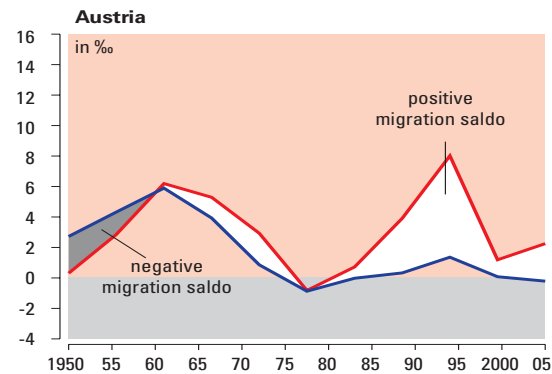


**Source:**  
**Settergren, Mikula in**  
**Marin, Zaidi (Eds.)**  
**2007, p 571**

# **Can Migration Be a Remedy for Ageing?**

**Population Changes:  
Natural Growth,  
Overall Growth,  
and Migration  
1950 - 2005  
in Selected Countries  
of the  
UN-European Region**

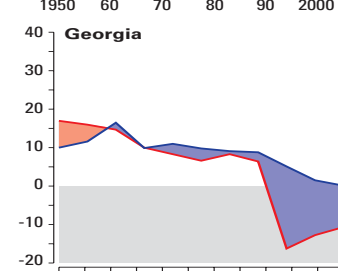
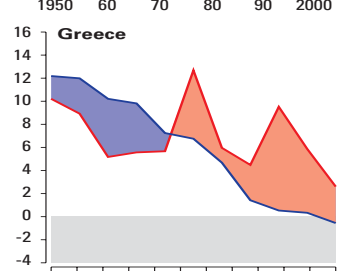
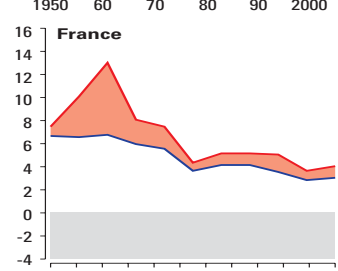
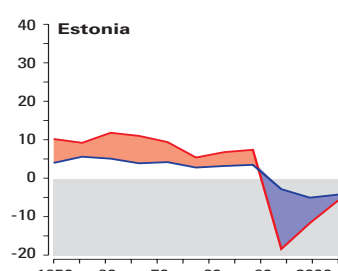
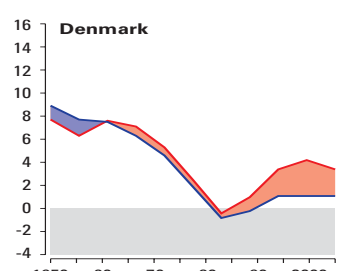
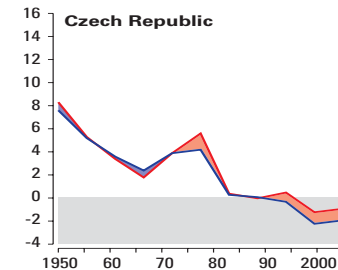
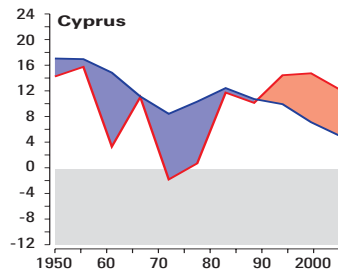
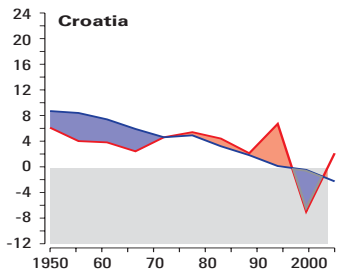
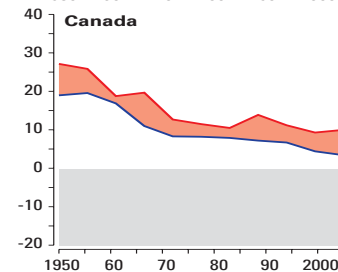
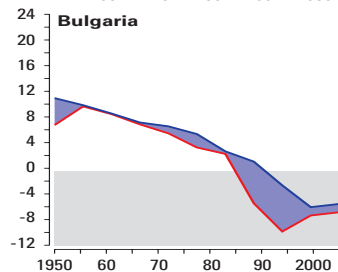
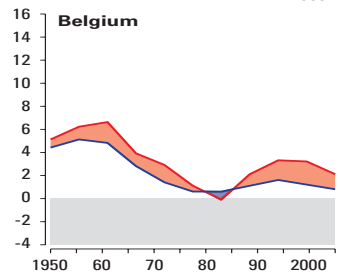
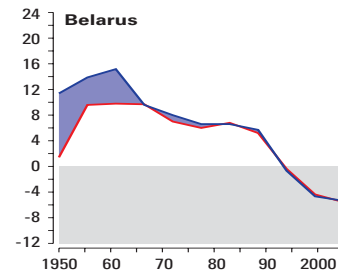
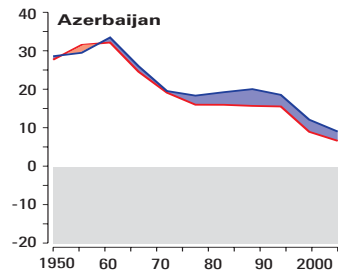
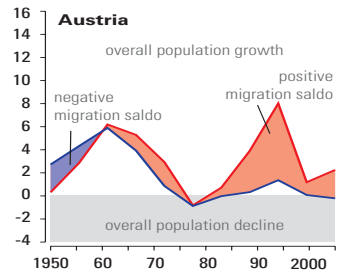




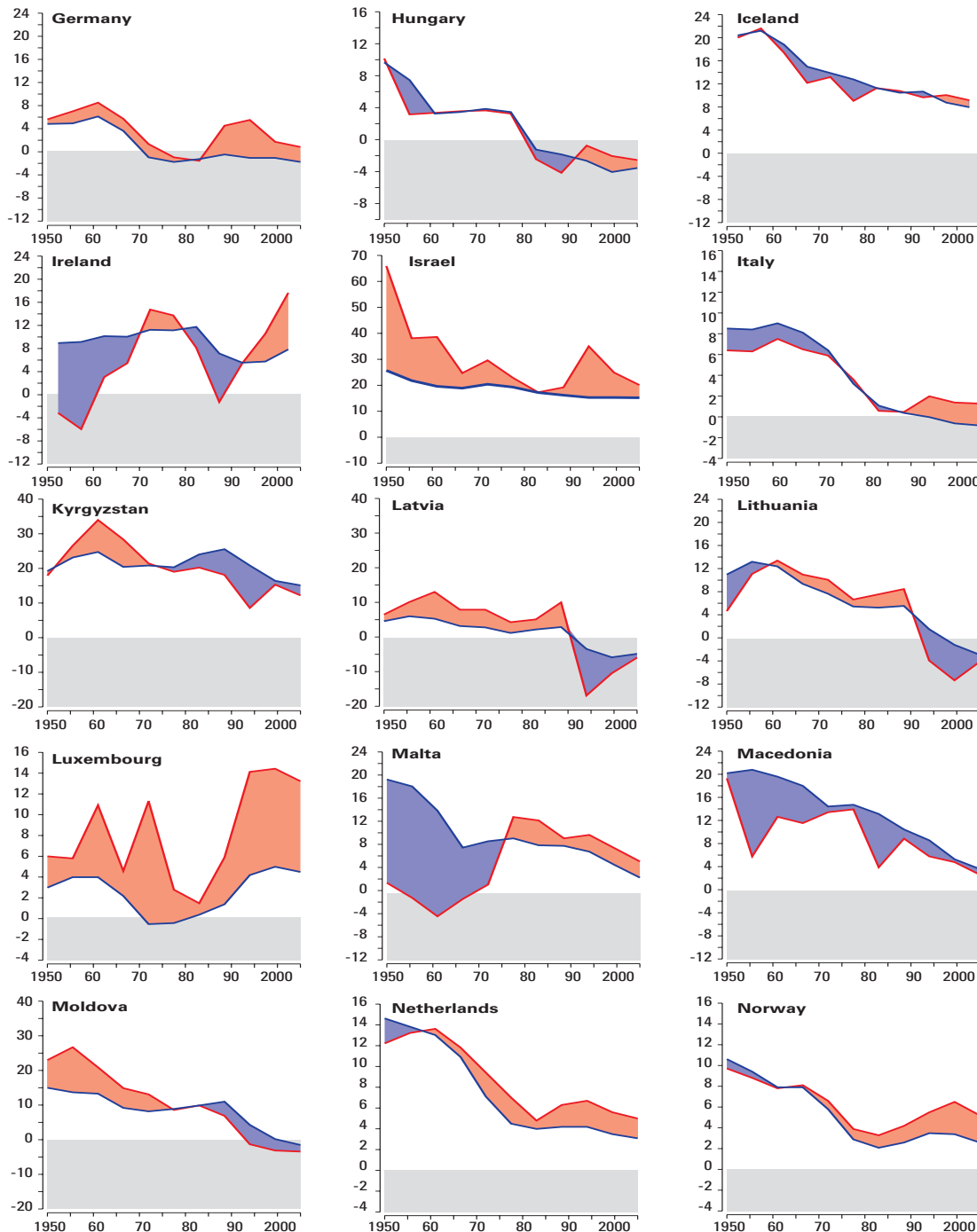
# Population Changes: Natural Growth, Migration 1950 - 2005 in Selected Countries of the UN-European Region

Sources: Marin/Zaidi, 2007, p 787  
Marin 2013, p 203

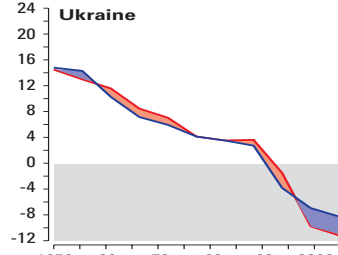
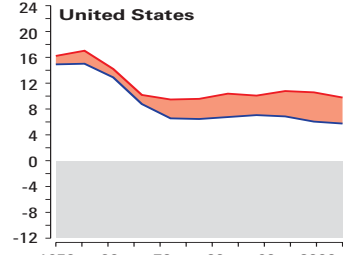
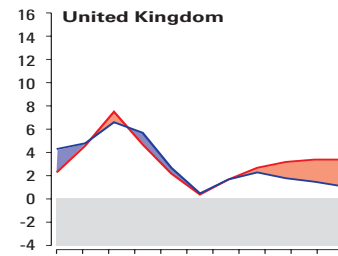
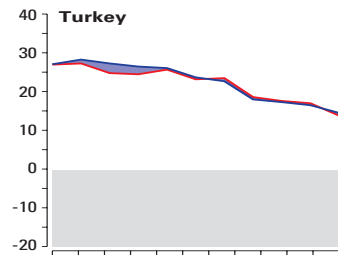
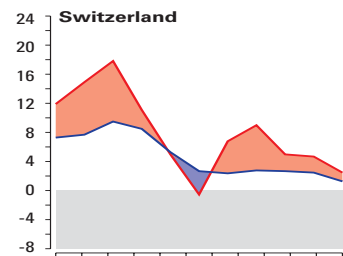
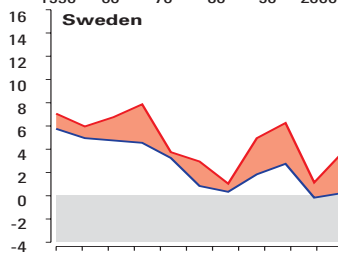
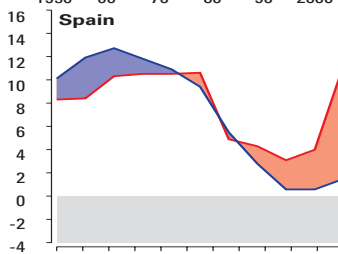
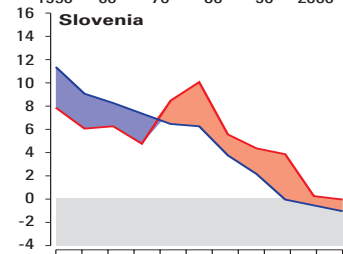
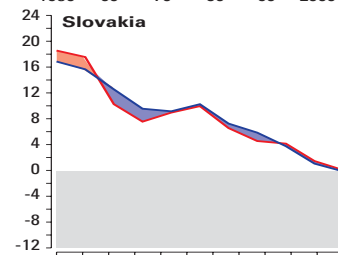
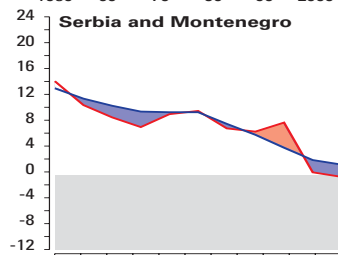
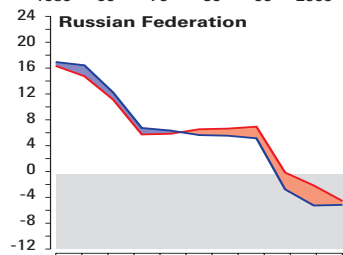
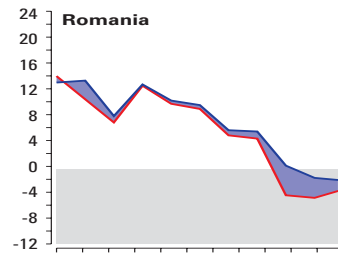
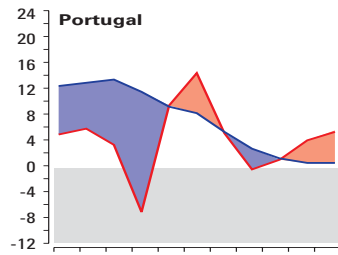
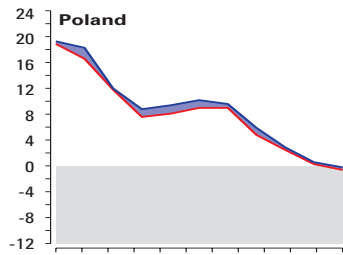




# Population Changes: Natural Growth, Overall Growth, Migration 1950 - 2005 in Selected Countries of the UN-European Region



**Population  
Changes:  
Natural Growth,  
Overall Growth,  
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1950 - 2005  
in Selected  
Countries of the  
UN-European  
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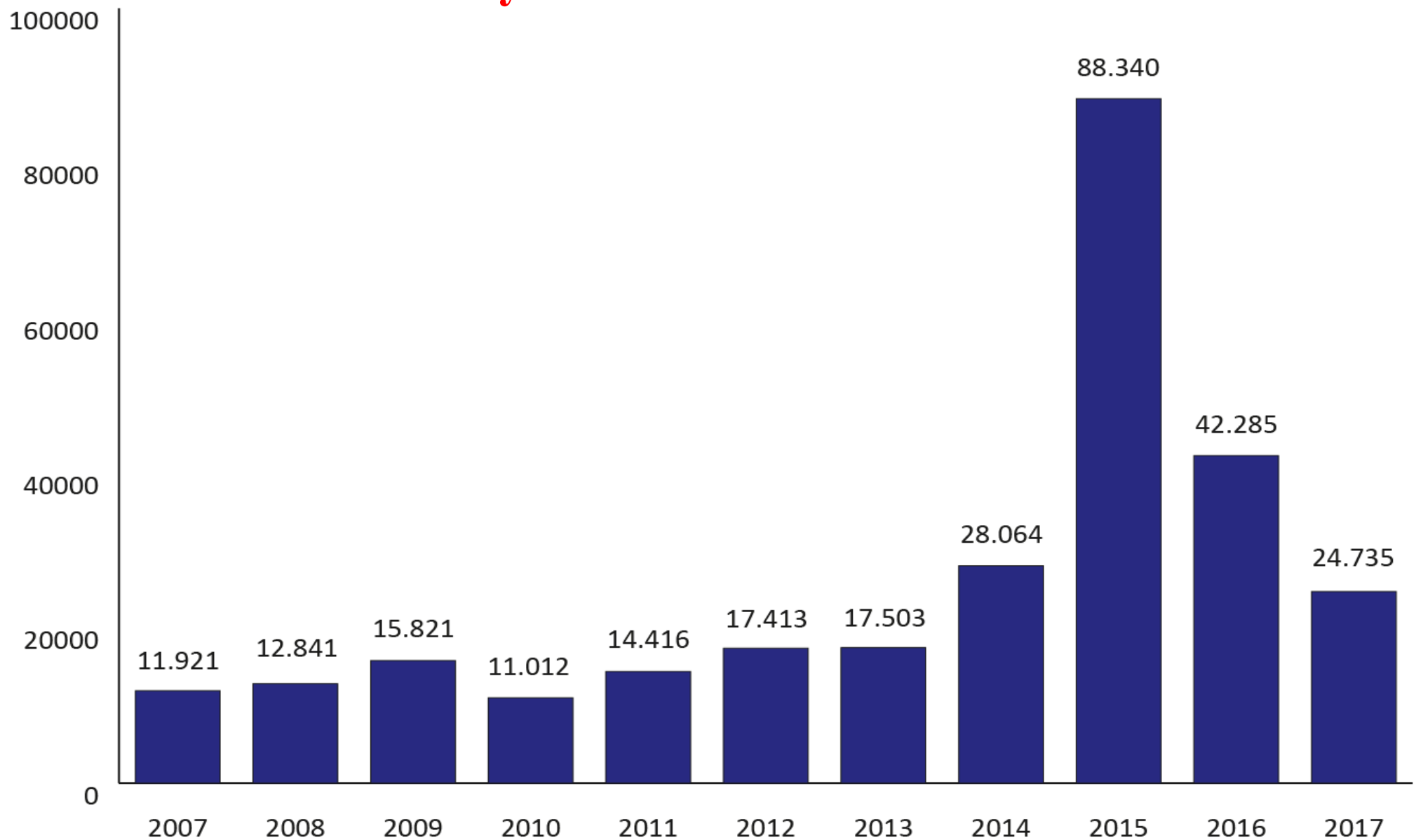


**Population Changes:  
Natural Growth,  
Overall Growth,  
Migration  
1950-2005  
in Selected  
Countries of the  
UN-European  
Region  
(per mille values)**

# Share of foreign population in percent

• Luxembourg	50,0 %
• Switzerland	29,2 %
• New Zealand	23,9 %
• Canada	20,0 %
• <b>Austria</b>	<b>17,4 %</b>
• Ireland	16,8 %
• Sweden	16,5 %
• Spain	13,4 %
• <b>USA</b>	<b>13,3 %</b>
• <b>UK, Germany</b>	<b>13,2 %</b>
• France	12,4 %
• Netherlands	11,8 %
• Italy	9,8 %
• Greece	6,4 %

# Dynamics of Refugee Movements and Number of Asylum Seekers Austria 2007 - 2017



Quelle: Bundesministerium für Inneres, 2018

# European international refugee magnets: asylum requests 2016/2017 (per 1.000 inhab)

• Sweden	16,7
• Austria	10,3
• Germany	5,9
• EU-28 Average	2,6
• Italy	1,4
• France	1,1
• United Kingdom	0,6
• Czech Republic	0,1

# Replacement Migration and Limits of Immigration:

How Much Immigration has Austria de facto –  
and How Much Does it „Need“ – What For ?

- Net immigration 1960–2016: 21.500 p.a.
- „Necessary “ immigration according to Replacement Migration Study H. Fassmann & S. Marik-Lebeck (2016)
- Stable number of inhabitants Austria:  
+21.600 net p.a. till 2050 (= real net immigration)
- Stable working age population (15-65 years): +44.000 net p.a. till 2050 (doubling net immigration rate) (plus 700.000)
- Stable old-age dependency ratio = 15-65: +65:  
+118.000 net p.a. till 2020 (5 times net immigration rate)  
+225.000 net p.a. till 2030 (+10 times net immigration rate)  
(Plus 385.600 plus 2.034.000)

## Replacement Migration – Can Never Do It Alone

- 1. Great necessity of continued (and somewhat stable) net immigration in order to only compensate for natural population decline and shrinking labour supply and working-age population.  
BUT
- 2. Underlines great reform requirements on the labour market (significantly higher activity and employment rates, in particular of younger and older labour market participants) and of a sustainable consolidation of the pension system.
- Far-reaching demographic change and transformation cannot ALONE or only predominantly be compensated by immigration, as the volume of “necessary” migratory flows according to Replacement Migration would transcend all social acceptability.



# What to Do in Migration Policies?

- Differentiate between asylum and immigration policies
- Strict primacy of labour market over all other immigration criteria (e.g. marriage market, family reunification, kinship chain migration, etc.) for third country immigration – except for refugees
- In view of lack of consensus and solidarity for redistributing refugees within the EU, a kind of “Tangible Solidarity” should be developed: this implies full cost-sharing of all External Cooperation Expenses (Turkey, Libanon, Jordania, Lybia and other Maghreb countries) as well as for internal EU burden sharing (implying financial and institutional support not just for countries like Italy, Greece and Spain, but also for Sweden, Germany and Austria)