Dynamically Adjusted Pension Age

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

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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

Source: Economix (2009)
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
Estimate of Average Lifetime Years (Paid) Out-of-Work, During and Beyond Working Age, of Persons Who Have Retired in Austria 2008

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

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.

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

Working vs. Non-working Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Working</th>
<th>Non-working</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>46.5</td>
<td>37</td>
<td>83.5</td>
</tr>
<tr>
<td>1970</td>
<td>43</td>
<td>34</td>
<td>77</td>
</tr>
</tbody>
</table>

- Childhood/Education: 19 years in 1970, 20.5 years in 2010
- Working life: 43 years in 1970, 46.5 years in 2010
- Retirement: 15 years in 1970, 16.5 years in 2010
- Total life expectancy: 77 years in 1970, 83.5 years in 2010
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


• 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, Moldowa, 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

<table>
<thead>
<tr>
<th></th>
<th>1952 (30 years lived)</th>
<th>2005 (30 years lived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronological Age</td>
<td>30 years lived</td>
<td>+44.7 years remaining life expectancy</td>
</tr>
<tr>
<td>Prospective Age</td>
<td>30 years lived</td>
<td>+54.4 years remaining life expectancy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1952 (30 years lived)</th>
<th>2005 (40 years lived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronological Age</td>
<td>30 years lived</td>
<td>+44.7 years remaining life expectancy</td>
</tr>
<tr>
<td>Prospective Age</td>
<td>40 years lived</td>
<td>+44.4 years remaining life expectancy</td>
</tr>
</tbody>
</table>

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 >=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”?

- Share of population above average age when one starts to be regarded as "old" (age 64+): 18%
- Share of population below average age when one stops to be regarded as "young" (aged 0-42): 53%
- Share of population in between being regarded as old and stopped being regarded as young (age 43-63): 29%

Would you personally describe yourself as young, middle-aged or old?

- Young: 49%
- Old: 14%
- Middle: 36%

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
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 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 Durchschnitts)
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

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

In Marin, B./ Zólyomi, E. (Eds.) (2010)
Why Are Europeans Ageing Only Around 3 Years in 4 Years Time? Life Expectancy Gains in Days Per Year Since the Millenium, 2000 - 2015

- Europe: 148 days/year
- China: 93 days/year
- North America: 73 days/year

Source: UN, World Population Prospects - 2017 Revision
Why Are Turkish People Currently Ageing Only 3 Years Within 5 Years Time

Source: UN World Population Prospects, 2017 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

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men 60</strong></td>
<td>21.3</td>
<td>81.3</td>
</tr>
<tr>
<td></td>
<td>27.5</td>
<td>87.5</td>
</tr>
<tr>
<td><strong>Men 65</strong></td>
<td>17.5</td>
<td>82.5</td>
</tr>
<tr>
<td></td>
<td>23.1</td>
<td>88.1</td>
</tr>
<tr>
<td><strong>Women 60</strong></td>
<td>25.1</td>
<td>85.1</td>
</tr>
<tr>
<td></td>
<td>30.8</td>
<td>90.8</td>
</tr>
<tr>
<td><strong>Women 65</strong></td>
<td>20.8</td>
<td>85.8</td>
</tr>
<tr>
<td></td>
<td>26.1</td>
<td>91.1</td>
</tr>
</tbody>
</table>

S: Statistik Austria
Age distribution, overall dependency ratio, and old-age dependency ratio, 1950 - 2050

NORTH AMERICA

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

EUROPE

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

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

Source: UN World Population Prospects, 2017
Old-Age Dependency Ratios EU-25 and Austria from 1960 to 2050

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 60+/20-59</td>
<td>28%</td>
<td>33%</td>
<td>35%</td>
<td><strong>39%</strong></td>
<td>58%</td>
<td>80%</td>
</tr>
<tr>
<td>Population 65+/20-64</td>
<td>15%</td>
<td>21%</td>
<td>23%</td>
<td>27%</td>
<td><strong>39%</strong></td>
<td>58%</td>
</tr>
<tr>
<td>Population 70+/20-69</td>
<td>/</td>
<td>/</td>
<td>14%</td>
<td>18%</td>
<td>25%</td>
<td><strong>40%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bevölkerung 60+/20-59</td>
<td><strong>35%</strong></td>
<td>37%</td>
<td>36%</td>
<td><strong>39%</strong></td>
<td>55%</td>
<td>73%</td>
</tr>
<tr>
<td>Bevölkerung 65+/20-64</td>
<td>21%</td>
<td>28%</td>
<td>25%</td>
<td>25%</td>
<td><strong>35%</strong></td>
<td>53%</td>
</tr>
<tr>
<td>Bevölkerung 70+/20-69</td>
<td>12%</td>
<td>17%</td>
<td>15%</td>
<td>17%</td>
<td>23%</td>
<td><strong>37%</strong></td>
</tr>
</tbody>
</table>

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?


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

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

* Time spent retired is calculated as life expectancy at the required retirement age.
## Forecast for your National Public Pension

<table>
<thead>
<tr>
<th>Retirement age</th>
<th>age 61</th>
<th>age 65</th>
<th>age 68 and 3 month</th>
<th>age 70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount SEK/month</td>
<td>10 300</td>
<td>13 100</td>
<td>16 000</td>
<td>18 500</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Jahr</th>
<th>Renteneintrittsalter</th>
<th>Geburtsjahr</th>
</tr>
</thead>
<tbody>
<tr>
<td>2035</td>
<td>69</td>
<td>1967 -</td>
</tr>
<tr>
<td>2040</td>
<td>70</td>
<td>1971 -</td>
</tr>
<tr>
<td>2045</td>
<td>71</td>
<td>1975 -</td>
</tr>
<tr>
<td>2050</td>
<td>72</td>
<td>1979 -</td>
</tr>
<tr>
<td>2055</td>
<td>73</td>
<td>1983 -</td>
</tr>
<tr>
<td>2060</td>
<td>73,5</td>
<td>1987 -</td>
</tr>
<tr>
<td>2065</td>
<td>74</td>
<td>1. Juli 1991 -</td>
</tr>
<tr>
<td>2070</td>
<td>74,5</td>
<td>1996 -</td>
</tr>
<tr>
<td>2075</td>
<td>75</td>
<td>1. Juli 2000 -</td>
</tr>
<tr>
<td>2080</td>
<td>75,5</td>
<td>2005 -</td>
</tr>
<tr>
<td>2085</td>
<td>76</td>
<td>1. Juli 2009 -</td>
</tr>
<tr>
<td>2090</td>
<td>76,5</td>
<td>2014 -</td>
</tr>
<tr>
<td>2095</td>
<td>77</td>
<td>1. Juli 2018 -</td>
</tr>
<tr>
<td>2100</td>
<td>77,5</td>
<td>2023 -</td>
</tr>
</tbody>
</table>
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, Overall 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, Migration 1950 - 2005 in Selected Countries of the UN-European Region
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 %
- Austria 17,4 %
- Ireland 16,8 %
- Sweden 16,5 %
- Spain 13,4 %
- USA 13,3 %
- UK, Germany 13,2 %
- 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?

• „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)