The economic dimension of population ageing – From ‘silver economy’ to ‘Ageing 4.0’

Kai Leichsenring & Andrea E. Schmidt
European Centre for Social Welfare Policy and Research, Vienna (Austria)
What I will talk about

1. Traditional approaches to the economics of population ageing
   • Challenges and opportunities

2. The multiple layers of economic effects in ageing societies
   • The impact of the Silver Economy: increasing inequalities?

3. Taking a radical life course approach
   • Age differentiation vs. age integration

4. Towards a new work-life model
   • Defining “Ageing 4.0”
Part I

Traditional approaches to the economics of population ageing ... and the changing economic and technological context
What we tend to talk about

• A demographic ‘time bomb’
• Rising ‘dependency rates’
• Public expenditure on ageing policies (pensions, health care)
• Too low fertility rates
• Lower productivity of a greying workforce
• The ‘lump of labour fallacy’ ...
What we ought to talk about

- New individual and societal choices and opportunities
- New technologies and products:
  - robotics, sensoring, internet of things, smart homes, robotics ...
- New types of health and care organisation and delivery
- New patterns of work
- New urban development ...
# The economic effects of demographic ageing

## Direct effects

<table>
<thead>
<tr>
<th>Direct effects</th>
<th>Traditional (neo-liberal) remedies</th>
<th>Preconditions often omitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing demand for public goods and services</td>
<td>Saving and labour market effects: labour productivity, capital per worker etc.</td>
<td>Reemployment after job loss: investment in health and physical capital</td>
</tr>
<tr>
<td></td>
<td>Impact on social security systems and fiscal revenues</td>
<td>Behavioural change of employers and older workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work-life balance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Investment in early childhood and care</td>
</tr>
</tbody>
</table>
The importance of the ‘Silver Economy’

• The value of the Silver Economy: US$ 7 trillion per year, third largest economy in the world (Merril-Lynch)

• The spending power of the now elderly “baby boomer” generation will reach US$ 15 trillion by 2020 globally (Euromonitor)

• Annual age-related government expenditure in the EU: 25% of GDP
  – Job opportunities, in particular in health and social services: employment is expected to rise from 2013 to 2025 at a much faster rate (+8.1%) than the overall EU employment (+3%)
  – 1 million new health care jobs are projected by 2020, an additional 7 million job openings are expected due to replacement needs

Age is becoming less important for labor market participation of secondary school graduates …

Employment rates among secondary school graduates in Central and Western Europe, 2002-2012

Declining differences in labor market participation of older workers

UK: Older cohorts in the poorest groups (in the UK) show a much steeper increase in frailty over time than the richest wealth groups.

Frailty trajectories by cohorts and wealth

Source: Marshall et al. (2015); ELSA data, UK (reproduced with permission from Nazroo, 2016: 18)
People with highest level of education can expect to live six years longer than people with lowest level of education

**Gap in life expectancy at age 30 – tertiary and below upper secondary education, by sex**

*Source: OECD, Society at a Glance (2016)*
Part II
The multiple layers of economic effects in ageing societies
Economic effects of ageing at the micro level

- The strong impact of life events
- Fertility, mortality and migration rates
- No standard life course → no standard prediction of the economic effects of ageing

Source: Reproduced with permission by Komp & Johansson (2015: 8)
Economic effects of ageing at the meso- and macro levels

- ‘Linked lives’ (Bengtson et al, 2005)
- ‘Lives in time and place’ (Settersten, 1999)
- Culture, labour market structures and welfare state design do influence life courses (Komp & Johansson, 2015)

Source: Reproduced with permission by Komp & Johansson (2015: 8)
The silver economy triggers different economic effects across levels

- **Potential for economic growth:**
  - New markets: housing for independent living; tourism; health and care ...
  - Sustainable LTC systems
  - Life course and social investment approach to social protection systems and services

- **Potential for job creation**
  - Fast growing demand for health and social care professionals
  - Growing demand for ICT professionals
  - Balance between work and care

Source: [http://mopact.group.shef.ac.uk](http://mopact.group.shef.ac.uk) (2015); Börsch-Supan (2005); smartsilvereconomy (2016)
(Emerging) Technologies and the ‘Silver Economy’

- **Nanosensors**
  - Security and safety
  - Health research
  - City monitoring, prevention

- **Autonomous vehicles**
  - Ease in living, working and leisure
  - Care organisation
  - Smart cities

- **Organs on chips**
  - Health, treatment of brain disorders
  - ...

- **ICT and Robotics**
  - Daily living, smart homes, smart cities
  - Gaming, lifelong learning tools
  - Long-term care

- **Geo-location**
  - Security and safety
  - Guidance

*Source: World Economic Forum (2016)*
Who will (not) benefit from the Silver Economy?

- Ageing affects inequality through multiple channels
- Inequalities between gender and socio-economic groups
- Unequal chances for Active Ageing

Sources: Active Ageing Index Project (http://www1.unece.org/stat/platform/display-AAI/Active+Ageing+Index+Home); World Bank (2015: 226); Ilinca et al. (2016)
Unpaid activities: choice vs. chore

• Care-giving to older family members in need of care is common among older people and especially women, but ...

• While richer individuals (higher income quintiles) provide more basic care (upper graph) ...

• ... frequent care-giving (daily basis) is more common among low income individuals (lower graph)

Sources: SHARE (2014); Ilinca et al. (2016)
Part III
Good reasons for taking a life course approach
Intergenerational exchange revisited

- European welfare states are pro-elderly oriented: more public transfers per capita than for children
- Comparisons need to account not only for public transfers ...

Source: Gal & Vanhuysse (2016), reproduced with authors’ permission, based on National Transfer Account data for 10 European countries (www.ntaccounts.org)
Considering private (financial and time) transfers

Private and public financial inter-age transfers, and time transfers in 10 European countries

Source: Gal & Vanhuysse (2016), reproduced with authors’ permission, based on National Transfer Account data for 10 European countries (www.ntaccounts.org).

Notes: Values are population weighted averages of 10 EU countries normalised on the per capita labor income of persons aged 30-49 of the respective country. Visible transfers are public transfers; invisible are private and time transfers.
From age differentiation to age integration

- Is the differentiated life-course model still applicable?
- The assignment of tasks and activities to defined age brackets has become outdated
- The age-integrated model conceives of activities as taking place simultaneously, rather than subsequently

Source: Riley & Riley (2000: 267)
The continuous disintegration of traditional life-course patterns (age differentiation)

- **Education**
  - BUT
  - Extended education
  - Extended transition to work

- **Work**
  - BUT
  - Unemployed periods
  - Care periods
  - Other leaves from employment
  - Re-training
  - Unpaid work

- **Leisure/Pension**
  - BUT
  - Rising life-expectation
  - Staggering healthy life-expectancy
  - Informal care
  - Care need
  - Volunteering

*Source: inspired by Riley & Riley (2000: 267)*
Conclusions
Towards a new work-life model in a sustainable economy: Ageing 4.0
Anticipating future life-course developments: Ageing 4.0

• Facilitating transitions
  • Between paid/unpaid work
  • Between education/training
  • Between family obligations and work/leisure

• Incentives for ‘re-training’, ‘upgrading courses’, ‘care leaves’
  • Every x years with rights and obligations

• Facilitating inter-generational equity
  • Providing ‘second chances’
Ageing 4.0: Integrated life-course perspectives in a solidaristic society

Good practice for addressing ‘transitions’ already established in a number of countries, but streamlining and a more systematic life-course orientation with rights (and obligations?) is needed!
Ageing 4.0: Economic and social dimensions

• Addressing the ‘new social risks in transitions over the life-course’:
  • Solidaristic risk distribution, rather than individualised risk inequality
  • Reduction of gendered life-course perspectives:
    • Acknowledgement of unpaid reproduction work
• Adaptation to technology-induced challenges
  • Skills development and increased productivity
• Equalization of demand and supply patterns (consumer and labour markets)
• Adaptation of welfare systems to new risks over the life-course
  • Facilitating transitions (school to work, care to work, work to training)
  • Facilitating a new ‘generational contract’
• Behavioural change – also towards higher reproduction rates?
Ageing 4.0: Economic and social dimensions

- Employment at all ages and life-long learning facilitated
- Productivity gains
  - More appropriately skilled workforce
- Fostering more equal life-chances
  - Gender
  - Socio-economic status

“A child today can expect to change jobs at least seven times over the course of their lives – and five of those jobs don’t exist yet.”

Esteban Bullrich
Minister of Education, Argentina

Sources: www.weforum.org; Komp (2014)
Ageing 4.0: Cost-benefit considerations

• **Micro level (individuals):**
  – Flexibility and openness for change required
  – Gains throughout careers from better qualification and work-life balance

• **Meso level (companies):**
  – Family-friendly policies increase productivity, job satisfaction and motivation, reduce absenteeism (Stutzer, 2012; Brandon & Temple, 2007)
  – Flexible solutions for (planned) absences for leaves are needed

• **Macro level (society):**
  – Social investments required to provide income security and support during (educational) leaves and periods of ‘unpaid reproduction work’
  – Increasing productivity and motivation, facilitating work at higher ages
Action needed

• **Embarking into the paradigm change**
  – Changing narratives: combining economics, demography, social gerontology and social policy, rather than playing against each other
  – Including both paid and unpaid labour
  – Shifting values

• **Tackle old-age poverty and inequalities**
  – A life-course perspective

• **Designing social investment and new welfare**
  – Preventative, participative, inclusive, creating values for the individual and the community: from ‘ego’ to ‘eco’
Thank you for your interest!

Contact:
leichsenring@euro.centre.org