POPULATION AGEING AND SOCIAL SECURITY IN ASIA
John Piggott and Rafal Chomik
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
1a. Demographic drivers: Fertility

Total Fertility Rate (children per woman), 1901-2051

1b. Demographic drivers: Life expectancy

Life expectancy at birth (years), 1901-2051

Australia
Female

Australia
Male

Japan
Female

Japan
Male

China
Female

China
Male

1b. Demographic drivers: Mid-life longevity

Source: Human Mortality Database www.mortality.org
1b. Demographic drivers: Mid-life longevity

% of males aged 15+ who are daily smokers

Australia

China

Source: OECD
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
2a. Population ageing: Dependency ratio

<table>
<thead>
<tr>
<th>Country</th>
<th>Dependency Ratio in 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>70%</td>
</tr>
<tr>
<td>Korea</td>
<td>61%</td>
</tr>
<tr>
<td>Singap.</td>
<td>58%</td>
</tr>
<tr>
<td>China</td>
<td>42%</td>
</tr>
<tr>
<td>Thailand</td>
<td>41%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>37%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>35%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>30%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>27%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>23%</td>
</tr>
<tr>
<td>India</td>
<td>20%</td>
</tr>
<tr>
<td>Laos</td>
<td>18%</td>
</tr>
<tr>
<td>Philipp.</td>
<td>16%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>15%</td>
</tr>
<tr>
<td>Timor</td>
<td>6%</td>
</tr>
<tr>
<td>USA</td>
<td>47%</td>
</tr>
<tr>
<td>Average</td>
<td>39%</td>
</tr>
</tbody>
</table>

Population aged 65 and above as proportion of population 15-64

Source: Chomik & Piggott (2012)
2b. Population ageing: Demographic dividend

Peak of Japan’s demographic dividend

Peak of China’s demographic dividend

Peak of Australia’s demographic dividend

Working-age as proportion of total population (%), 1950-2050

Source: Chomik & Piggott (2012)
2b. Population ageing: Demographic dividend

Source: Chomik & Piggott (2012)
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
3a. Associated trends: Urbanisation

Source: Chomik & Piggott (2012)
3b. Associated trends: Social

Average household size

Source: Chomik & Piggott (2012)
3c. Associated trends: Economic

Source: Chomik & Piggott (forthcoming)
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
4a. Retirement income: Structure

- Safety net for adequacy
  - Universal
  - Targeted

- Mandatory income replacement
  - Pay As You Go
    - Public provision
    - Private provision
  - Funded
    - Public provision
    - Private provision

- Voluntary saving
  - Employment related
    - Tax preferred
  - Other
    - Non tax preferred
4a. Retirement income: 1ST pillar

- Safety net for adequacy
  - Universal
  - Targeted
- Mandatory income replacement
  - Pay As You Go
  - Funded
- Voluntary saving
  - Employment related
  - Other
  - Private provision
  - Private provision
  - Public provision
  - Public provision
  - China resident & rural
  - Australia Age Pension
  - China Urban Employee
  - Australia Superannuation
  - Tax preferred
  - Non tax preferred
### 4a. Retirement income: 1st pillar

<table>
<thead>
<tr>
<th>Country</th>
<th>Universal</th>
<th>Targeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>28% of AW</td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Age 70+, 5% of AW</td>
<td>Age 65-69, 5% of AW</td>
</tr>
<tr>
<td>Japan</td>
<td>National Pension 16% of AW</td>
<td>Basic Age Pension 31% of AW</td>
</tr>
<tr>
<td>Korea</td>
<td>Urban Resident Pension, Rural Pension</td>
<td>Exists but low</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td>Exists but low</td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td>Exists but low</td>
</tr>
<tr>
<td>Laos</td>
<td></td>
<td>Exists but low</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td>Exists but low</td>
</tr>
<tr>
<td>Philippines</td>
<td>Old Age Pension basic, 4% of AW</td>
<td>Exists but low</td>
</tr>
<tr>
<td>Singapore</td>
<td>500 Baht scheme</td>
<td>Exists but low</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td>Exists but low</td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td>Exists but low</td>
</tr>
</tbody>
</table>

Source: Chomik & Piggott (2012)
4b. Retirement income: 2nd pillar

Safety net for adequacy
- Universal
- Targeted

Mandatory income replacement
- Pay As You Go
- funded

Voluntary saving
- Employment related
- Other

Public provision
- China Urban Employee

Private provision
- Australia Superannuation

Tax preferred
Non tax preferred
4c. Retirement income: 2nd + 3rd pillar

Pension funds' assets for selected OECD and Asian countries, 2011, USD billion

Source: Chomik & Piggott (2012)
4d. Retirement income: Regulations

1. **Accumulation and decumulation** integration
2. **Enrolment** and contributions
3. **Incentives**, particularly if voluntary
4. **Low-cost** retirement savings instruments
5. **Default investment**, but choice of risk profiles and horizons
6. **Default life-cycle** investment to protect those near retirement
7. **Annuitisation to** protect against longevity
8. **Annuity market** supply and cost-efficiency
9. **Risk-hedging** instruments and information
10. **Financial illiteracy** and communication
4e. Retirement income: Coverage

Coverage of pension schemes of working-age population (mid-2000s)

Source: World Bank
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
5a. Labour market: Pension access age

Source: Chomik & Piggott (2012)
5a. Labour market: Pension access age

Employment rate of urban Chinese males (by 2 year age group)

Pension eligibility of urban Chinese males (by 2 year age group)

Source: Chomik & Piggott (2012)
That there is a fixed demand for labour and a job becomes available if someone stops work

Used to support a supposed link: Early retirement → Unemployment reduction

In fact, working creates its own demand: More workers → more productive economy
5b. Labour market: Lump of labour fallacy

Across countries

Employment rate, 55-59 year olds, per cent

Across time

Employment rate, 60-64 year olds

New Zealand

France
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
6a. Healthcare: Different development levels

Source: Chomik & Piggott (2012)
6b. Healthcare: Coverage concepts

Source: Chomik & Piggott (2012)
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
7a. Aged care: Disability ↑ with age

Snapshot of disability prevalence by age, Australia 2008-09

Some reported (non-limiting) disability or mild to moderate core activity limitation.

Severe core activity limitation.

Source: Australian Bureau of Statistics (SDAC)
7b. Aged care: Years in disability ↑

Life expectancy and healthy life expectancy over time

Source: Global Burden of Disease Study
7c. Aged care: Expansion of supply

Cumulative number of aged care homes in selected Chinese cities

Foreign companies can help with all aspects of development and management: software, operations, training and standards as well as building

Before 1990, 96% were govt run. By 2000s 80% of new facilities private

Sector reclassified from “restricted” to “permitted” (so can be 100% foreign owned)

Beijing

Tianjin

Nanjing

Source: Feng et al, 2011
7d. Aged care: Policy areas

- **Structure** (home v institution)
- **Financing** (public insurance / tax; means testing; reverse mortgages; private insurance)
- **Informal care** (support progs; labour market)
- **Provision** (efficiency / tech; workforce)
- **Quality** (regulation; market mechanisms)
- **Interventions** (prevention & rehabilitation)
Context
1. Demographic drivers
2. Population ageing
3. Associated trends

Policy
7. Retirement income
8. Labour market
9. Healthcare
10. Aged care
Email  
j.piggott@unsw.edu.au  
Web  
www.cepar.edu.au  
Twitter  
@cepar_research  

Sign up for our newsletter  
Follow us on twitter  

Questions?