Generational Economy and Demographic Diversity in Asia-Pacific: Evidence from Demographic Dividends

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Rapid Aging and Demographic Diversity in Asia-Pacific, % of 65+ population in 2023

- **Averages**: East Asia & Pacific (13%), South Asia (6%), Pacific small states (5%)
- **Superaged countries** (more than 20% of people over 65 yrs): Japan (30%)
- **Aged countries** (more than 14% of people over 65 yrs): Australia (17%), New Zealand (16%), Republic of Korea (17%), Thailand (15%)
- **Ageing countries** (more than 7% of people over 65 yrs): Singapore (14%), China (13%), Democratic People’s Republic of Korea & Sri Lanka (11%); India, Indonesia, Iran (7%), Vietnam (9%)
- **Next wave**: Bangladesh, Cambodia, Nepal (6%), the Pacific, Maldives, Philippines (5%), Pakistan, Lao (4%), PNG (3%)

Source: UN Population Prospects, 2022
Percentage of older persons (65+) in Asia-Pacific (selected countries, 1950-2100)

Source: UN Population Prospects, 2022
Percentage of older persons (65+) in Asia-Pacific (selected countries, 1950-2100)

Source: UN Population Prospects, 2022
Demographic profiles of selected countries in different stages of demographic dividends

<table>
<thead>
<tr>
<th>Country</th>
<th>Total population (millions) 2023</th>
<th>TFR 2022</th>
<th>Life expectancy at birth, 2022 Male</th>
<th>Life expectancy at birth, 2022 Fem</th>
<th>% CPR*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiji</td>
<td>0.9</td>
<td>2.4</td>
<td>67</td>
<td>70</td>
<td>44</td>
</tr>
<tr>
<td>Indonesia</td>
<td>277.5</td>
<td>2.1</td>
<td>69</td>
<td>73</td>
<td>60</td>
</tr>
<tr>
<td>Pakistan</td>
<td>240.5</td>
<td>3.3</td>
<td>65</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Philippines</td>
<td>117.3</td>
<td>1.9</td>
<td>70</td>
<td>74</td>
<td>44</td>
</tr>
<tr>
<td>Thailand</td>
<td>71.8</td>
<td>1.0*</td>
<td>76</td>
<td>84</td>
<td>75</td>
</tr>
<tr>
<td>Vietnam</td>
<td>98.9</td>
<td>1.9</td>
<td>70</td>
<td>79</td>
<td>66</td>
</tr>
</tbody>
</table>

Source: UN Population Prospects, 2022; *UNFPA Asia-Pacific Regional Office, forthcoming. Demographic Dividend Atlas for Asia-Pacific
Trend in population shares by age group, selected countries, 1950-2100

Source: UN Population Prospects, 2022
Estimation of 1st and 2nd Demographic Dividends

Consumption Identity

\[
\frac{C}{N} = (1 - s) \frac{Y}{L} \frac{L}{N}
\]

- \( C \) – aggregate consumption
- \( Y \) – aggregate income
- \( s \) – saving rate (\( S/Y \))
- \( L \) – effective number of workers
- \( N \) – effective number of consumers

Effective producers and consumers

\[
L = \frac{\sum y_i(x)}{\sum \overline{y}_i(30-49)} \cdot P(x)
\]
\[
N = \frac{\sum c(x)}{\sum \overline{c}(30-49)} \cdot P(x)
\]

- \( P(x) \) – population age x
- \( y_i(x) \) – per capita labor income age x
- \( \overline{y}_i(30-49) \) – per capita labor income age 30-49
- \( c(x) \) – per capita labor income age x
- \( \overline{c}(30-49) \) – per capita consumption age 30-49

Two Dividends

Channel for first dividend:
Increase in the support ratio (\( L/N \)) holding other factors, saving and income per effective worker, constant.

\[
\frac{C}{N} = (1 - s) \frac{Y}{L} \frac{L}{N}
\]

Channel for second dividend:
Changes in saving and capital per effective worker influence income, from labor and assets, per effective worker.

Source, Andrew Mason and Ron Lee, 2013. Demographic Dividend Working Group, a presentation given in Barcelona
Support Ratio, % of effective number of workers/effective number of consumers (L/N)

Source: UNFPA Asia-Pacific Office, forthcoming, Demographic Dividend Atlas for Asia-Pacific
The 1\textsuperscript{st} demographic dividend (NTA estimates) of selected countries, percentage points of economic growth per year, 1950-2100

The calculation is based on the UN Population Prospects 2022 and NTA estimates of the normalized consumption and labor income profiles. The 1\textsuperscript{st} dividend is calculated as the growth rate of the support ratio. Measuring the direct contribution of changes in the support ratio to economic growth.

Source: UNFPA Asia-Pacific Office, forthcoming, Demographic Dividend Atlas for Asia-Pacific
Key message 1: The government’s investments in human capital development need to be accelerated to lessen the burdens on the working-age population.
1st Demographic Dividend based on NTA analysis, 2023
1st Demographic Dividend based on NTA analysis, 2050
Health Spending (public transfer for 60+ years as % of labor income age 30-49 years)

No data for the Pacific

Source: UNFPA Asia-Pacific Office, forthcoming, Demographic Dividend Atlas for Asia-Pacific,
Health Spending (private transfer for 60+ years as % of labor income age 30-49 years)

No data for the Pacific

Source: UNFPA Asia-Pacific Office, forthcoming, Demographic Dividend Atlas for Asia-Pacific,
**Key message 2:** Several countries with rapid aging did not manage to have a human capital deepening through a better investment in higher education

<table>
<thead>
<tr>
<th>Country</th>
<th>Educational attainment, at least completed upper secondary, population 25+, female % (cumulative)</th>
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<th>Educational attainment, at least completed upper secondary, population 25+, female % (cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td></td>
<td>Men</td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>55.3 (2000), 70.4 (2015)</td>
<td>Korea</td>
<td>72.6 (2008), 82.7 (2005)</td>
</tr>
<tr>
<td>Philippines</td>
<td>20.5% (2019)</td>
<td>Philippines</td>
<td>27.7% (2019)</td>
</tr>
<tr>
<td>Fiji</td>
<td>46.8% (2017)</td>
<td>Fiji</td>
<td>42.3% (2017)</td>
</tr>
<tr>
<td>French Polynesia</td>
<td>50.8% (2007)</td>
<td>French Polynesia</td>
<td>48.4% (2007)</td>
</tr>
</tbody>
</table>

Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate)
A drop in fertility leads to an increased concentration of the population at working ages, creating an opportunity for accelerated economic growth per capita, and potentially could lead to the 1st & 2nd demographic dividend if proper policies and interventions are in place.

**Taking a life-cycle approach to support a better generational economy**

Provide better employment and support to women so they can be self-reliance.

Invest in the further development of their human capital by ensuring access to health care and quality education at all ages and by promoting opportunities for productive employment and decent work.

Better investment in sexual and reproductive health and gender equity including human capital deepening with skilled workforces for decent employment, especially among young people, needs to be accelerated.