How Global Aging Will Transform the Economy, Society, and Geopolitical Order of the 21st Century

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LONGEVITY 13
Taipei
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The world stands on the threshold of a stunning demographic transformation called global aging.

Two Forces behind the Aging of the Population: Rising Longevity and Falling Fertility

<table>
<thead>
<tr>
<th>Region</th>
<th>Life Expectancy at Birth</th>
<th>Total Fertility Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed World</td>
<td>67</td>
<td>72</td>
</tr>
<tr>
<td>Japan</td>
<td>62</td>
<td>73</td>
</tr>
<tr>
<td>Western Europe</td>
<td>67</td>
<td>72</td>
</tr>
<tr>
<td>United States</td>
<td>69</td>
<td>71</td>
</tr>
<tr>
<td>Emerging East Asia</td>
<td>44</td>
<td>62</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>60</td>
<td>69</td>
</tr>
<tr>
<td>Greater Middle East</td>
<td>42</td>
<td>55</td>
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<tr>
<td>Latin America</td>
<td>52</td>
<td>62</td>
</tr>
<tr>
<td>South Asia</td>
<td>40</td>
<td>52</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>37</td>
<td>45</td>
</tr>
</tbody>
</table>

Developed World Outlook
Graying means paying more for pensions, health care, and long-term care for the elderly.

Few countries will be able to raise taxes enough to cover more than a fraction of the age wave’s total cost.

Most countries will have to cut old-age benefits, but the required reductions are large and are likely to meet with resistance from aging electorates.

The alternatives: Let old-age benefits crowd out other government spending and/or run widening budget deficits.

Note: Projections assume that program eligibility ages and benefit levels remain unchanged in the future.

A Future of Slower Economic Growth

Slowly growing or contracting working-age populations will translate into slower GDP growth.

Japan and some European countries may face a future of “secular stagnation.”

Productivity and living standard growth may also slow as rates of saving and investment decline.

Aging workforces may be less flexible, less mobile, and less entrepreneurial, putting a further drag on growth.

As domestic markets stagnate, the danger of “beggar-thy-neighbor” protectionism will grow.

### Average Annual Growth Rate in the Working-Age Population (Aged 20-64), by Decade

<table>
<thead>
<tr>
<th></th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
<th>2010s</th>
<th>2020s</th>
<th>2030s</th>
<th>2040s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>1.7%</td>
<td>1.1%</td>
<td>1.3%</td>
<td>0.5%</td>
<td>-0.1%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>France</td>
<td>1.0%</td>
<td>0.4%</td>
<td>0.6%</td>
<td>-0.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Germany</td>
<td>1.1%</td>
<td>0.3%</td>
<td>-0.5%</td>
<td>-0.1%</td>
<td>-1.1%</td>
<td>-0.8%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Italy</td>
<td>0.9%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>-0.4%</td>
<td>-0.7%</td>
<td>-1.2%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Japan</td>
<td>0.7%</td>
<td>0.4%</td>
<td>-0.4%</td>
<td>-1.0%</td>
<td>-0.7%</td>
<td>-1.2%</td>
<td>-1.1%</td>
</tr>
<tr>
<td>UK</td>
<td>0.7%</td>
<td>0.4%</td>
<td>0.7%</td>
<td>0.3%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>US</td>
<td>1.3%</td>
<td>1.2%</td>
<td>1.1%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.3%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

A Future of Relative Economic Decline and Diminished Geopolitical Stature

GDP by Country and Country Group as a Percent of World GDP, in PPP Dollars, 2016, 2030, and 2050*

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canada</strong></td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>France</strong></td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Italy</strong></td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td>29%</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Note:** “World GDP” refers to the GDP of 32 of the world’s largest economies, including the ten largest developed economies (the G-7 plus Australia, the Netherlands, and Spain) and 22 large emerging markets.

**Source:** *The Long View: How Will the Global Economic Order Change by 2050?* (PWC, 2017)
Shades of Gray

- The degree of population aging varies tremendously across the developed world, from moderate in the United States to severe in parts of Europe and Japan.

- Yet to one extent or another, all developed countries face a future of rising fiscal burdens, slower economic growth, and diminished geopolitical stature.

Developing World Outlook
The Promise of the “Demographic Dividend”

- As the developing world moves through the “demographic transition,” the slowdown in population growth and upward shift in age structure may push it toward greater peace and prosperity.

- The social and political argument: Fading youth bulges and rising median ages will foster stability.

- The economic argument: Declining dependency burdens and growing working-age populations create a “demographic dividend” and open up a window of opportunity for rapid development.

### Median Age, 1975–2050

<table>
<thead>
<tr>
<th>Region</th>
<th>1975</th>
<th>1990</th>
<th>2015</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging East Asia</td>
<td>20</td>
<td>25</td>
<td>37</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>31</td>
<td>34</td>
<td>40</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td>Greater Middle East</td>
<td>18</td>
<td>19</td>
<td>25</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Latin America</td>
<td>19</td>
<td>22</td>
<td>29</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>South Asia</td>
<td>19</td>
<td>21</td>
<td>27</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>18</td>
<td>17</td>
<td>18</td>
<td>20</td>
<td>24</td>
</tr>
</tbody>
</table>

*Source: UN Population Division (2015)*

### Working-Age Population (Aged 20-64), as a Percent of the Total Population, 1975–2050

<table>
<thead>
<tr>
<th>Region</th>
<th>1975</th>
<th>1990</th>
<th>2015</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging East Asia</td>
<td>46%</td>
<td>55%</td>
<td>67%</td>
<td>62%</td>
<td>54%</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>58%</td>
<td>59%</td>
<td>64%</td>
<td>58%</td>
<td>55%</td>
</tr>
<tr>
<td>Greater Middle East</td>
<td>43%</td>
<td>44%</td>
<td>54%</td>
<td>56%</td>
<td>57%</td>
</tr>
<tr>
<td>Latin America</td>
<td>44%</td>
<td>49%</td>
<td>58%</td>
<td>59%</td>
<td>57%</td>
</tr>
<tr>
<td>South Asia</td>
<td>45%</td>
<td>48%</td>
<td>57%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>42%</td>
<td>41%</td>
<td>43%</td>
<td>47%</td>
<td>52%</td>
</tr>
</tbody>
</table>

*Source: UN Population Division (2015)*
In some regions of the developing world, including most of sub-Saharan Africa and parts of the Greater Middle East, the demographic transition has stalled in its early stages.

In other regions, the very speed of the transition is potentially destabilizing. China is aging prematurely, while Russia is on the cusp of a steep population decline.

**Caveat One: Averages Can Be Deceiving**

- **Graph 1**: Youth Bulge (15-24) as a Percent of the Adult Population (15 & Over), 1980, 2015, and 2050
  - *Includes Afghanistan, Iraq, Mauritania, Palestine, Sudan, Somalia, and Yemen*
  - **Developing-World Average**
  - **High-Fertility Greater Middle East**
    - 1980: 32%
    - 2015: 35%
    - 2030: 35%
    - 2050: 35%
  - **Sub-Saharan Africa**
    - 1980: 34%
    - 2015: 35%
    - 2030: 35%
    - 2050: 33%

- **Graph 2**: Percentage Change in the Population of the Russian Federation, 2015-2050
  - **Total Population**: 2015-2030: -3%, 2015-2050: -10%
  - **Working-Age (20-64)**: 2015-2050: -23%

- **Graph 3**: Elderly (Aged 65 & Over), as a Percent of the Population, 1970-2050
  - **China**:
    - 1970: 6%
    - 2050: 37%
  - **US**:
    - 1970: 10%
    - 2050: 21%

**Source**: UN Population Division (2015)
The demographic dividend may open up a window of opportunity for development, but it does not guarantee economic success.

Leveraging the dividend requires sound macro policies, good governance, and massive investments in infrastructure and, above all, human capital.

Although economic growth has accelerated in many emerging markets over the past fifteen years, none are on track to replicate East Asia’s economic performance.

**Caveat Two: Missed Economic Opportunities**

**Average Annual Growth Rate in Real GDP Per Capita in PPP Dollars, by Period, 1975-2015**

- **Emerging East Asia:**
  - 1975-2000: 7.7%
  - 2000-2015: 6.9%

- **South Asia:**
  - 1975-2000: 4.7%
  - 2000-2015: 3.1%

- **Eastern Europe:**
  - 1975-2000: 3.5%
  - 2000-2015: -0.5%

- **Sub-Saharan Africa:**
  - 1975-2000: 2.5%
  - 2000-2015: -0.9%

- **Greater Middle East:**
  - 1975-2000: 2.2%
  - 2000-2015: -0.1%

- **Latin America:**
  - 1975-2000: 1.0%
  - 2000-2015: 1.7%

**Source:** World Development Indicators Database; Maddison Project Database; and UN Population Division (2015)
Societies undergo tremendous stresses as they move from the traditional to the modern. When plotted against development, most of these stresses describe an inverted-U, meaning that they become most dangerous midway through the demographic transition and the development process.

These stresses include:

- Contact with the global marketplace and culture
- Urbanization
- Environmental degradation
- Growing income inequality
- Growing ethnic competition
- Religious extremism

Source: Author’s illustration.
Concluding Thoughts
Concluding Thoughts

- Global aging is as close as social science comes to a certain prediction about the future.
- From rising fiscal burdens to slowing economic growth, many of the consequences are also highly certain.
- Yet there are also critical questions about global aging whose answers remain unclear:
  - Will health spans rise along with life spans?
  - Is global aging pushing the world toward a future of capital surpluses or shortages?
  - Will aging societies become more risk averse, have shorter time horizons, and be less willing to undertake investments in future-oriented agendas?
- Global aging is a global problem requiring global solutions. The greatest danger is that aging societies may retreat from globalization.

Share of the Population with Less than Twenty Years of Life Remaining, by Country, 1950-2050

Source: Author’s calculations based on UN Population Division (2007) and Human Mortality Database (UC Berkeley and Max Planck Institute for Demographic Research)