May 31, 2019

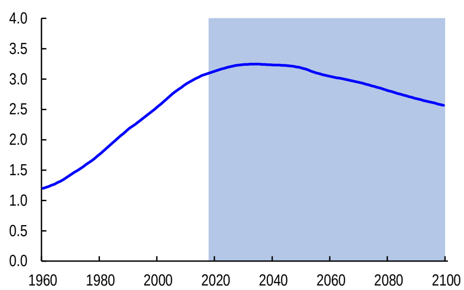
Framework Working Group Summary Document on Macroeconomic Implications of Population Aging[i]

While population projections are uncertain, G20 economies are expected to age significantly over the coming decades, driven by lower fertility rates and longer life expectancies. The working age population is set to decline, and old-age dependency ratios are expected to increase in all G20 members over the next several decades. There is significant variation in the aging process across the G20, with advanced G20 economies generally in a later stage of the demographic transition. Fertility rates remain relatively high in some Emerging Market Economies (EMEs), with working age population having yet to peak. These EMEs will face the challenge of having to integrate relatively large youth populations into the labour force over the near term while preparing for longer-term demographic transition. They may also face aging-related challenges in the short-term through spillovers from Advanced Economies (AEs).

In the face of population aging, a key challenge will be to leverage the benefits of increased longevity including through international spillovers, and to mitigate negative macroeconomic impacts. In light of the expected aging process, G20 policy makers should be forward-looking and proactive in undertaking beneficial reforms. Appropriate policy responses will depend on each country's existing institutional structure and political economy.

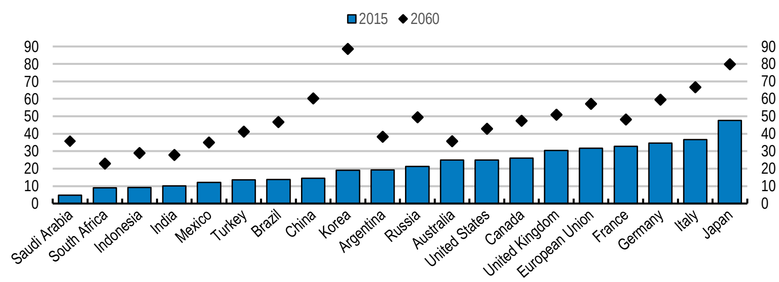
G20 Working-Age Population

(Billions of persons, aged 15-64)



Source: UN World Population Prospects: The 2017 Revision, and IMF staff calculations. Area shaded in blue is based on projections.

Number of People Older than 65 Years per 100 People of Working-Age (20-64)



Source: OECD staff calculations, based on national sources for Argentina, Australia, Brazil, Canada, Germany, Indonesia, Italy, Japan, Korea, Mexico, Russia, Turkey, the United Kingdom and the United States; Eurostat Population Projections (2008 revision) for France; and UN World Population Prospects: The 2017 Revision for China, India, Saudi Arabia and South Africa.

Macroeconomic Implications

Higher longevity is evidence of social, economic and technological progress, but population aging brings with it significant macroeconomic implications. The net impact will depend on the responses of firms, individuals and governments and the interaction of many economic variables. Furthermore, as demographic changes vary across members, so will the macroeconomic implications. Impacts on one economy can also spillover to others. A declining working-age population, as well as a rising proportion of older workers, who may have lower participation rates, will put downward pressure on GDP.

The productivity impact of aging is mixed. A scarcity of workers could incentivize investment in capital substitutes for labour input (e.g. robots) that could raise productivity and lead to capital deepening. On the other hand, although usually more experienced, older workers may be less innovative and entrepreneurial than younger workers. They also tend to shift overall consumption patterns to lower-productivity services.

The impact on savings and investment trends will vary. Overall, the prospect of weaker economic growth due to aging and a declining labour force will likely dampen investment demand. On the other hand, aggregate savings tend to decrease for economies at a late stage of aging and increase for those at an earlier stage. Empirical evidence suggests that population aging has contributed to lower real interest rates in the past, although the impact may be less certain going forward. Different demographic profiles and institutional frameworks across members will generate different savings and investment patterns.

Population aging can be a factor in cross-border capital flows and current account balances. IMF estimates suggest that in general, capital flows from older-aged to younger-aged countries, and these capital flows can help moderate the effects of aging by channeling capital to where it is most needed and can support global income convergence.

Population aging has implications for monetary policy and financial systems. Potential downward pressure on equilibrium interest rates could reduce the room for conventional monetary policy. Lower interest rates, declining population, lower credit demand, increased risk-aversion, and diversified demand for financial services could drive adjustments in the business models of financial institutions.

Aging-related spending creates fiscal pressure, notably spending on pensions, health, and long-term care, **in the context of high debt levels for many members**. Including existing reforms, the OECD expects pension expenditures to increase in the majority of G20 members by 2050/60. The IMF estimates that, absent new reforms, the G20 will experience a 6 and 7 percentage point of GDP increase, on average, in age-related public spending by 2050 in EMEs and AEs, respectively, and most of these increases are related to health spending. Given these pressures, the OECD projects that, without any policy changes, tax revenues in advanced G20 countries would have to increase between 4.5 and 11.5 percentage points of GDP by 2060 to keep debt-to-GDP ratios at current levels.

Population aging can exacerbate intra- and inter-generational inequality. For example, pay-as-you go pension regimes can lead to an increased financial burden on younger workers when old-age dependency ratios are rising. Within generations, disadvantages in education, health, employment and earnings can reinforce one another and compound over the lifecycle. In general, people with higher education and income tend to benefit more from increased longevity.

Policy Implications

While uncertain in its scope and speed, population aging will not come as an economic shock; therefore, member policy reforms should be proactive and forward-looking.

Policies to raise labour force participation and productivity can mitigate the impact of aging on GDP. For example, inclusive labour market policies that further boost labour force participation of underrepresented groups such as women, youth, elderly and migrants can help offset the declining share of working-age population. Policies to promote healthy and productive aging are also essential for extending labour force participation over the course of a working lifetime. Support for lifelong learning, retraining, labour mobility and pension portability, flexible work arrangements, retirement policies and the adoption of new technologies can also lessen the impact of aging. Policies to increase competition and innovation, and those that encourage technology diffusion and harness the benefits of technological advances can help lift productivity.

Generating efficiencies in public revenue and spending will be important, particularly spending in health and long-term care for an older population. Properly designed healthcare reforms can reduce pressure on healthcare expenditures while ensuring adequate coverage. An emphasis on healthy aging and promoting health education may also help to curb medical spending in some countries. On the revenue side, tax systems may need to be further reformed so as to better respond to the challenges posed by aging, for example, by broadening the tax base, and strengthening tax compliance.

Reform of pension systems will be central to ensuring the sustainability of public finances, supporting intergenerational equality and reducing old-age poverty. In general, these reforms should allow for flexible work and retirement arrangements with adequate financial incentives. Raising the effective retirement age could encourage higher participation of older workers while maintaining the same pension benefits. One option could be to link the statutory retirement age and pension benefits to life expectancy, including potentially through automatic mechanisms. Unifying pension frameworks across workers and extending them towards non-standard forms of employment may help promote labour mobility across sectors, equality, and economies of scale. Formalization of informal employment can help ensure sufficient pension and health coverage. Delinking pension contributions and employment status may be able to broaden the coverage of social security systems, and promoting complementary private pension schemes can increase pension coverage and fiscal sustainability. Depending on country-specific circumstances, reforms may also be needed to reduce public pension generosity, to secure the sustainability of public finances, and to encourage higher private retirement savings.

Income inequality can impact life expectancy, so the implications of aging for inequality need to be carefully considered in policy design to avoid being potentially regressive.

Governments should be transparent about the fiscal challenges of aging in their medium term frameworks. Publication of longer-term fiscal projections can increase awareness of the impact of aging and build support for challenging policy reforms. Fiscal and social security reforms should be pursued in a predictable manner with sufficient transition periods, and governments need to avoid making commitments based on overly optimistic assumptions and projections.

Monetary policymakers need to better understand the implications of aging for monetary policy. With aging likely to induce lower equilibrium interest rates, potential changes in the strategy and/or the conduct of monetary policy might have to be considered. Also, lessons learned from the use of unconventional policy tools will be important.

Financial authorities could engage with financial institutions to assist their adjustment of business models and services to the aging society. Policies could ease this adjustment and encourage financial institutions to expand age-specific financial services, while being mindful of financial stability implications. Fostering financial literacy could also improve the ability of individuals to make informed financial decisions, helping avoid poverty in retirement.

Labour and capital movements across borders can be mutually beneficial and a risk sharing mechanism between countries. Well-managed international migration can help countries alleviate fiscal pressures associated with rapid aging and provide more time to implement the necessary reforms, and may also raise productivity. Capital flows can help achieve higher returns in economies in a late state of aging while providing the necessary capital in economies in an early stage of aging. Strengthening international/multilateral frameworks and enhancing coordination can help ensure the best outcome for maximizing productivity gains and their spillovers, while minimizing negative impacts.

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[i] This document draws on the following papers produced for the G20: OECD (2019), Fiscal challenges and inclusive growth in aging societies; IMF (2019), Macroeconomics of Aging and Policy Implications, as well as presentations by the WBG and ILO and G20 member discussions at 2019 meetings of the G20 Framework Working Group for Strong, Sustainable, Balanced and Inclusive Growth and the G20 Symposium held in Tokyo.