The economics of healthy and active ageing series

New evidence for the Western Pacific Region

Australia

How does healthy ageing affect economic growth in Australia?

World Health Organization
Centre for Health Development

European Observatory on Health Systems and Policies
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Acronyms

GDP	gross domestic product
IHME	Institute for Health Metrics and Evaluation
UN	United Nations
WHO	World Health Organization
YLD	years lived with disabilities

Figures

Box

Introduction

"Population ageing presents economic and societal challenges"

Population ageing presents economic and societal challenges for countries around the world. Rising life expectancy coupled with lower fertility rates is shifting age demographics so that, globally by 2050, 1 in 6 people will be over the age of 65, up from 1 in 11 in 2019 (UN, 2019a). As the share of older people in the overall population increases, the workforce composition will also shift from young to relatively older age workers in many countries (Aiyar et al., 2016).

Some researchers have suggested that increases in the share of the population at older ages can have adverse economic implications (Fair & Dominguez, 1991; Acemoglu & Restrepo, 2018). This could occur through a number of pathways. For example, a large population share at older ages may put fiscal pressure on social security systems, pensions and health expenditure (Bloom, Canning & Fink, 2011); a large older population may exit the formal labour force en masse; and, in addition, some researchers suggest that older people who do continue in formal work may have lower productivity rates (Feyrer, 2008; Aiyar et al., 2016; ADB, 2019).

The potential for population ageing to result in economic challenges through these pathways may be exacerbated if people age in poor health (Feyrer, 2008; Aiyar et al., 2016; Cylus, Normand & Figueras, 2018). A critical question therefore is how the health and disability of older people impacts economic growth and whether the potential adverse economic effects described above can be moderated by supporting healthy ageing.

This report presents estimates of macroeconomic effects of population ageing in Australia and considers the role of health and disability. Data and methods used for the analysis in this report are outlined in Box 1.

Box 1: Data and methods for forecasting economic gains of healthy ageing

To estimate the effects of population ageing on economic growth and consider the potential moderating effects of health and disability among the older working-age population, we make use of data from multiple sources. We use data on real per capita gross domestic product (GDP) from the World Bank (World Bank, 2020a), historical and forecasted population by age data from the United Nations (UN) Population Division (UN, 2019b), and data on years lived with disabilities (YLD) by age from the Institute for Health Metrics and Evaluation (IHME, 2020). We aggregate the data into three working-age groups: the young working-age (20–39 years old), the mid working-age (40–54 years old) and the older working-age (55–69 years old). Data are available from 1990 to 2017 for 180 countries.

Country fixed effects models are used to estimate real per capita GDP growth as a function of the shares of the population in each age group and the interaction between YLDs per person and the share of the population aged 55–69 years old. To illustrate the magnitude of the effects of supporting healthy ageing, we compare GDP growth projections holding baseline (2017) YLDs per person for 55–69-year-olds constant to an alternative healthy ageing scenario where disability rates are held constant at 5% lower than at baseline.

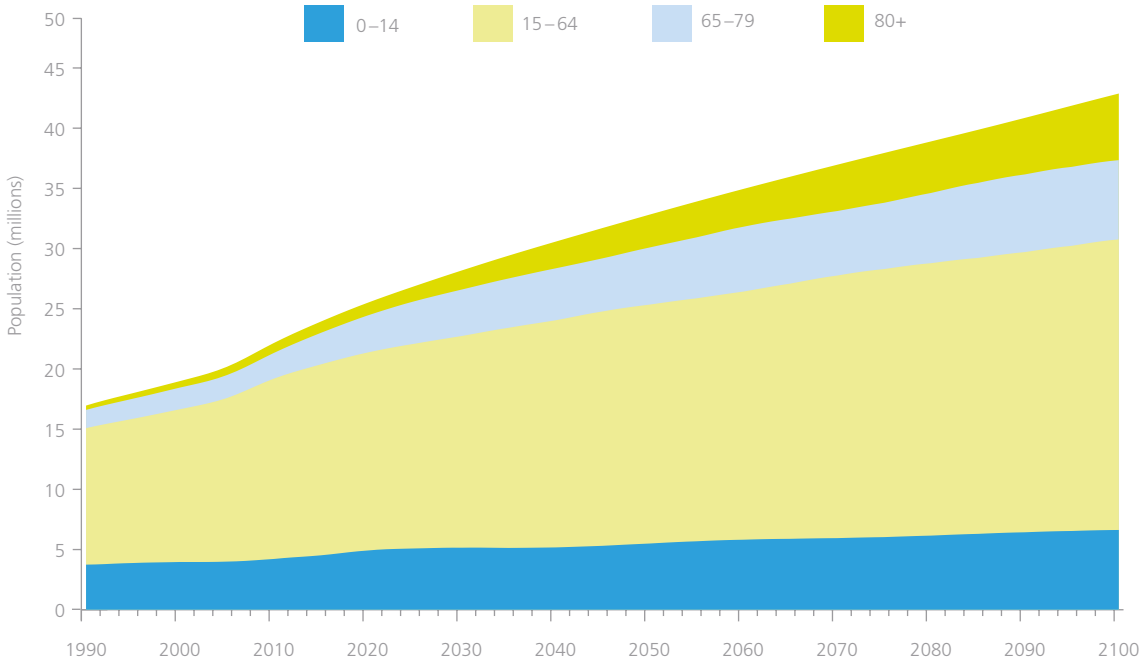
The Australian context: demographics, health and disability, and the economy

Population (2020)	Shares of the population (%) 55–69 years old	2019 GDP per capita (PPP)	2018 Employment share of the population (%) 55–65+ years old	2017 Life Expectancy (years)	Years lived with disability (YLD) per 1000 population 55–69 years old in 2017
25.5 million	2020: 16.5% 2050: 17.3% 2080: 17.0%	$53320	55–64: 63.8% 65+: 13.7%	82.6	176.3

Australia's young population is predicted to experience rapid ageing in the next decades

With a rapid growth rate since 1990, Australia's total population is expected to reach 32.8 million people in 2050 and 42.9 million people in 2100 (Figure 1). Australia's population is currently relatively young with a median age of 38 in 2020 compared with 32 in 1990 (UN, 2019b); the share of people aged between 55–69 is 16.47% in 2020 compared to the younger working-age population (20–54 years old) of 47% (UN, 2019b). However, the median age is predicted to significantly increase in the upcoming decades as the population ages and the share of older people rises. In fact, the share of the older population aged 55–69 is projected to increase to 17.26% by 2050 and slightly decrease to 17.02% by 2080 (UN, 2019b). This age-demographic transition is also shown through the substantial projected increase in the old-age dependency ratio (ratio of population over 65 to population aged 20–64) from 27.7% in 2020 to 45.8% in 2060 (UN, 2019b).

Figure 1. *Population age-mix in Australia, historical and projections (1990–2100)*



Source: UN, 2019b.

Australia has seen substantial improvements in life expectancy

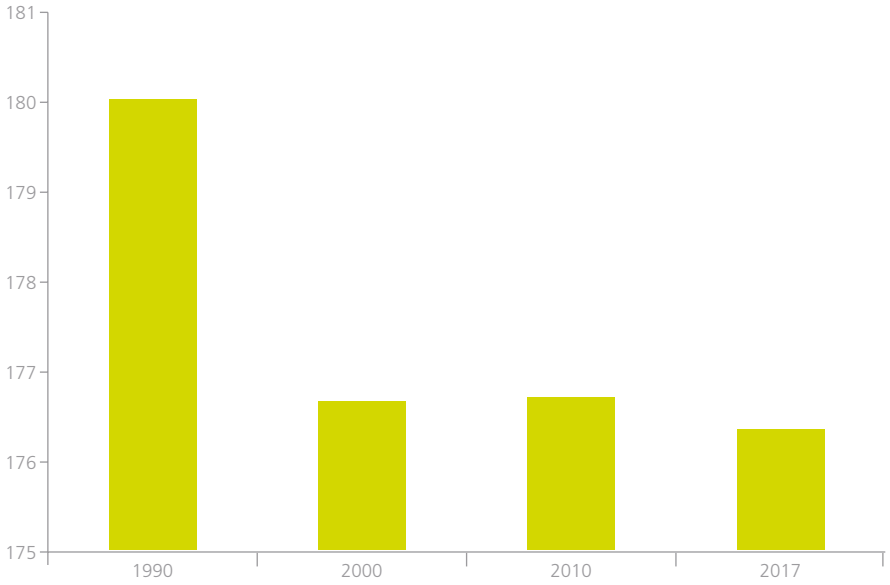
Australia scores relatively well in terms of health status. Life expectancy at birth in Australia has substantially improved since 1960 with a gradual increase from 70.9 to 82.6 years in 2017. Although life expectancy remains higher than the World Health Organization (WHO) Western Pacific Region's average of 76.6 years and infant mortality has been decreasing, Australia's death rates have recently been on the rise. However, amongst the older population aged 50–69, death rates have fallen from 1053 deaths per 100,000 in 1990 to 560 per 100,000 in 2017 (IHME, 2020).

Non-communicable diseases are the main cause of disability

The main drivers of disability and morbidity in Australia are non-communicable diseases, cardiovascular diseases, cancer and chronic respiratory diseases. In fact, 89% of the burden of disease in Australia is attributed to a rise in non-communicable diseases, which are mostly related to increasing population risk factors, including high levels of obesity, physical inactivity, smoking and alcohol consumption. The prevalence of obesity among adults in 2016 is 29%, which is remarkably high when compared with the Western Pacific Region's prevalence of obesity among adults of 6.4% in 2016 (WHO, 2017). In addition, 30.4% of adults in Australia led a lifestyle with insufficient physical activity in 2016 (WHO, 2018). Consumption of alcohol is projected to be 13.2 litres per person in 2020 and to increase slightly to 13.5 litres in 2025 (WHO, 2016). Moreover, 14.3% of adult males are projected to smoke tobacco in 2020 compared with 11% of females (WHO, 2015), accelerating the incidence of chronic respiratory diseases and cancer. Optimistically, both are predicted to decrease in 2025 respectively, to a prevalence of 12.3% and 9.2% (WHO, 2015). Further, high disability rates affect the population in Australia. In particular, people aged between 55–69 approximately experienced roughly 176.3 YLDs in total per 1000 population in 2017 (or alternatively, one can consider an equivalent conceptualization that around 18% of the population aged 55–69 was fully disabled for the entire year). Disability rates in Australia are among the highest in the region compared to Japan, Viet Nam and the Republic of Korea, which respectively report per 1000 population YLDs of 164.6, 166.9 and 171 (IHME, 2020).

Figure 2 displays how YLDs have been decreasing in Australia since 1990, reaching 176.6 per 1000 population in 2000. YLDs per 1000 population then slightly increased until 2010 but have started to decrease again, reaching 176.3 per 1000 population in 2017 (IHME, 2020).

Figure 2. *Years lived with disabilities per 1000 population, for 55–69-year-olds in Australia, historical (1990–2017)*



Source: Authors' calculations using IHME, 2020 and UN, 2019b.

Australia's economy has been resilient over the last decade, but positive economic growth is not projected to remain in the near future due to COVID-19

Following a market-led economy model since the 1980s and 1990s, Australia's economic growth has been positive and stable. Australia's economy has demonstrated an outstanding capacity to overcome and absorb shocks, notably the global financial crisis and commodity price boom as it succeeded in sustaining a steady and stable output growth (OECD, 2018). Sound macroeconomic management is shown through the gradual increase of the GDP per capita growth, reaching 1.3% in 2018 (World Bank, 2020a). Investments, exports and strong domestic demand are the biggest drivers of economic growth in Australia (OECD, 2018). The economy also heavily relies on the services and manufacturing industries (Commonwealth, 2020).

Despite the Australian economy's steady track record, the COVID-19 pandemic has caused deep economic challenges that are expected to remain in the short term. The economy had already been suffering from slow investments, drought and bushfires, and the pandemic has disrupted it even more, with real GDP projected to decline by 5% in 2020 (OECD, 2020). Consequently, Australia is entering a recession, mainly driven by unfavourable labour market conditions as the unemployment rate increased from 5.2% in 2017 to 7.4% in 2020 (OECD, 2020). The fall of commodity prices, domestic demand, tourism, as well as exports, is also hampering economic growth (OECD, 2020; World Bank, 2020b).

To moderate the economic and social impact of the pandemic, Australia has taken extensive social protection measures, including: boosting the affordability of health care services; fiscal stimulus to citizens, including sickness benefits, unemployment protection such as employment retention subsidies, family leave and care policies; and supporting businesses in managing liquidity shortages (UNDP, 2020; World Bank 2020a). Although Australia is efficiently controlling the spread of the virus and has low rates of infection and fatalities, the adverse economic slowdown due to the pandemic is likely to be deep and recovery is not foreseen in the short term. If a second wave of infections strikes again and the pandemic persists globally, GDP could fall by 6.3% in 2020 (OECD, 2020).

As regards population ageing, the number of older people in the labour force has been increasing steadily. In 2018, 1,843,000 people aged between 55 to 64 were employed compared with 1,518,000 in 2010. The same pattern is observed for people over 65 years with 539,000 employed in 2018 compared to 317,000 in 2010 (ILOSTAT, 2018).

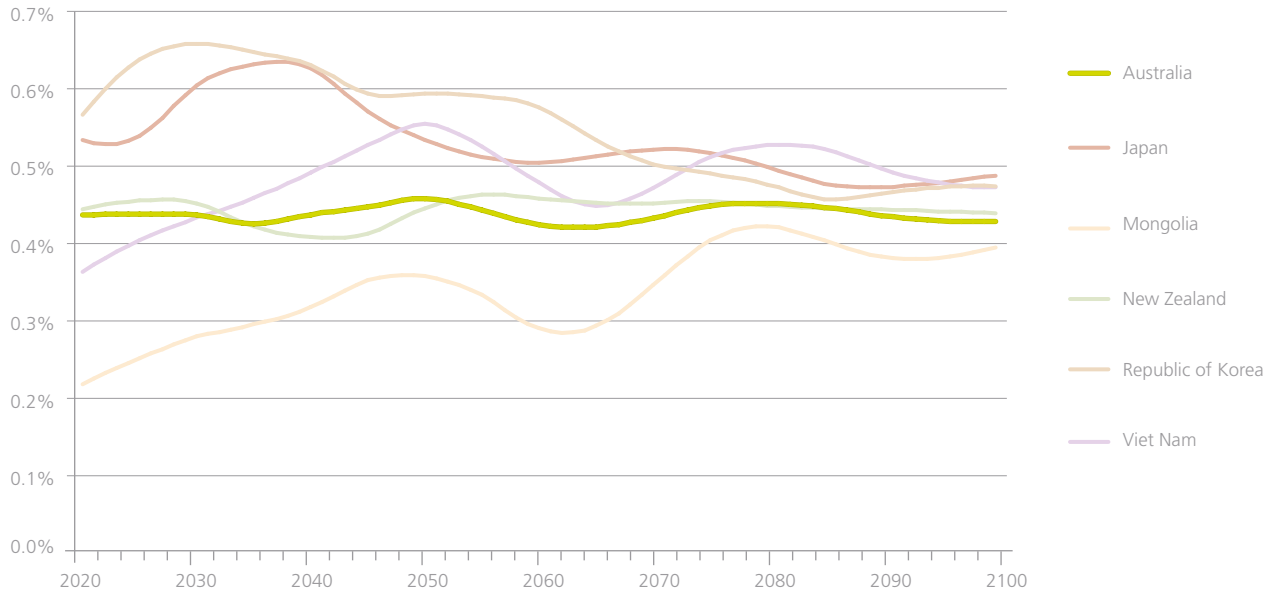
How will population ageing in Australia affect economic growth according to the models?

Without accounting for the level of disability of the population, the increase in the share of the population aged 55–69 is expected to coincide with a slowdown of per person GDP growth. From 2020 to 2050, the share of the population aged 55–69 is expected to increase from 16.47% to 17.02%, contributing to a slowdown in per person GDP growth of around 0.4% according to model estimates. Additionally, taking a longer projection from 2020 to 2100, the share of the population aged 55–69 is expected to decrease from 16.47% to 16.14% which, according to our model estimates, would be expected to increase per person GDP by around 0.2%.

Accounting for the level of disability among those aged 55–69, however, moderates any adverse effects of population ageing according to model estimates.

To illustrate, projections of per person GDP growth holding 2017 disability rates among the 55–69-year-old population constant in the future are compared to projections where a 5% improvement in disability rates is assumed. Figure 3 shows that reducing disability among the older working-age population is associated with increases in per person GDP growth. The 5% reduction in disability rates among the older population contributes positively to annual per person GDP growth, adding between 0.4% and 0.5% annually through to 2100.

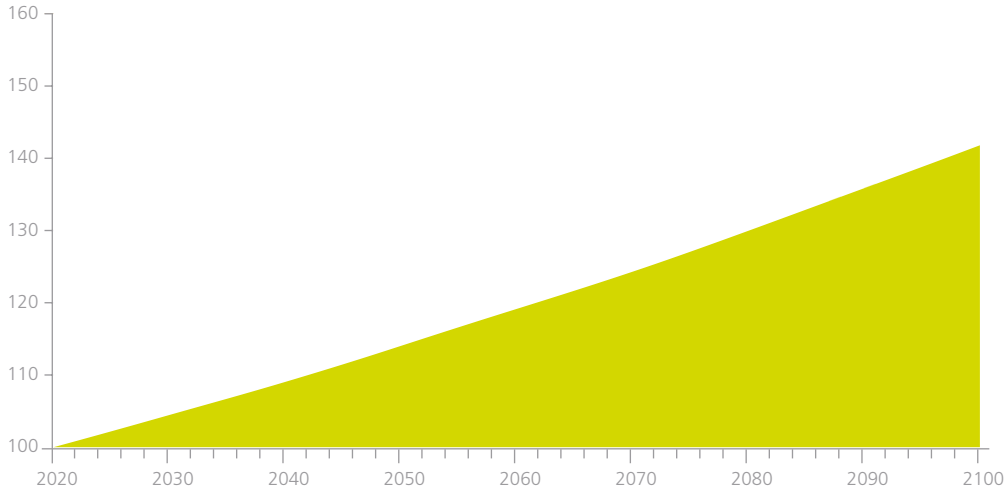
Figure 3. *GDP growth attributable to a 5% improvement in disability rates among older population (55–69 years) compared to 2017 baseline disability rates, projections (2020–2100)*



Source: Authors' calculations.

To get a sense of the full contribution of healthy ageing over the projection period, Figure 4 shows the cumulative effect of this growth due to lower disability. If disability rates among 55–69-year-olds were constant but 5% lower than in 2017, Australia could expect to see an additional 41.8 percentage points of GDP growth per person by the end of the century.

Figure 4. *Cumulative GDP growth attributable to a 5% improvement in disability rates among older population (55–69 years) compared to 2017 baseline disability rates, projections (index 2020 =100)*



Source: Authors' calculations.

Discussion

This report suggests that, although population ageing has historically been associated with slower economic growth, a healthy and active older population can have economic benefits. Model estimates indicate that relatively small improvements in disability rates among older people in Australia can result in sizeable economic impacts by the end of the century.

Policies aiming to promote healthy and active ageing can play an important role in mitigating the adverse economic effects of ageing. Some effective policies that have been proposed in the literature to promote healthy ageing and improve disability rates reflect a life-course approach, including: preventing disease progression, cognitive and frailty declines; workplace initiatives; and other interventions outside the health system (Cylus, Normand & Figueras, 2018). An assessment of possible approaches to support the health needs specific to Australia's ageing population would be useful so that appropriate policy interventions can be considered and the full potential of the older population realized.

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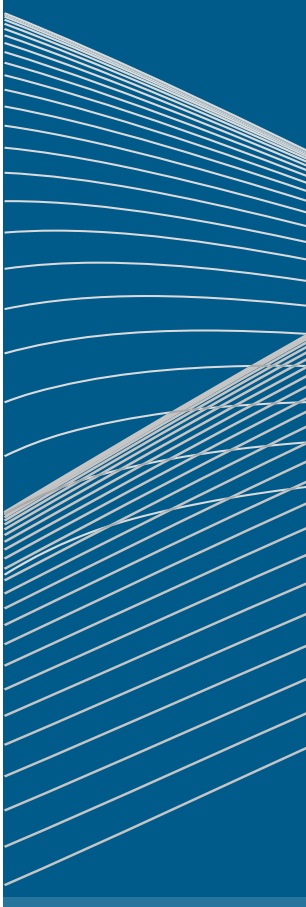

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