



The economics of healthy and active ageing series
New evidence for the Western Pacific Region
New Zealand

HOW DOES HEALTHY AGEING AFFECT ECONOMIC GROWTH IN NEW ZEALAND?

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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

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“Population ageing presents economic and societal challenges”

Introduction

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 New Zealand 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 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.

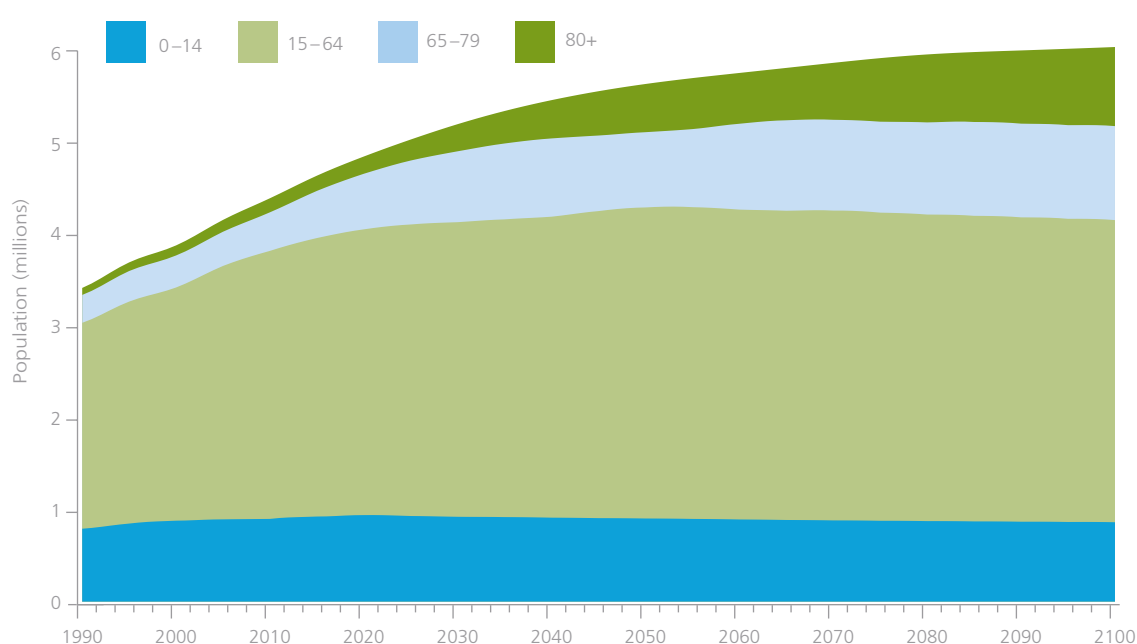
The New Zealand context: demographics, health and disability, and the economy

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
4.8 million	2020: 17.40% 2050: 17.44% 2080: 17.57%	\$43 953	55–64: 80% 65+: 24%	81.9	183

New Zealand's population is relatively young; however, it is predicted to experience rapid ageing in the next decades

With a rapid growth rate since 1990, New Zealand's total population is expected to reach 5.6 million people in 2050 and 6 million people in 2100 (Figure 1). New Zealand's population is currently relatively young with a median age of 38 in 2020 compared with 31 in 1990 (UN, 2019b); the share of people aged between 55–69 is 17.4% in 2020 compared to the younger working-age population (20–54 years old) of 46% (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 17.44% by 2050 and slightly increase to 17.57% 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 28.3% in 2020 to 48.6% in 2060 (UN, 2019b).

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



Source: UN, 2019b.

Although life expectancy is among the highest in the region, death rates are increasing

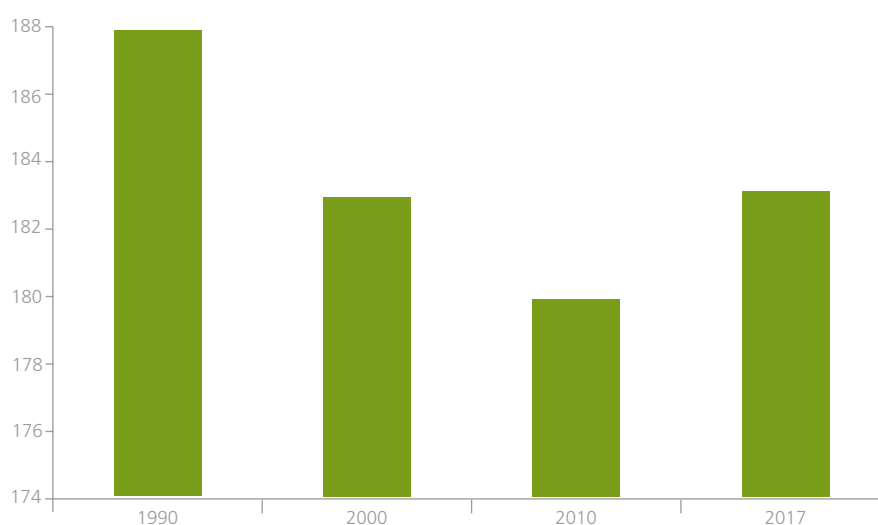
Life expectancy at birth in New Zealand has substantially improved since 1960 with a gradual increase from 71.1 to 81.9 years in 2017. Although life expectancy remains higher than the World Health Organization (WHO) Western Pacific Region's average of 76.6 years and infant mortality has been falling, mortality rates are slightly increasing. However, for the older population aged 50–69, death rates have fallen from 1216 deaths per 100,000 in 1990 to 610 per 100,000 in 2017 (IHME, 2020). In fact, death rates can be linked to the high inequalities in health care access and utilization that exist for a significant proportion of the population; many report having unmet medical needs due to their inability to cover the high costs, which, in turn, worsens their health status (OECD, 2017).

Non-communicable diseases are the main cause of disability

The main drivers of disability and morbidity in New Zealand are non-communicable diseases, cardiovascular diseases, cancer and respiratory diseases (chronic obstructive pulmonary disease (COPD) and asthma) (OECD, 2017). In fact, 89% of the burden of disease in New Zealand 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 30.8%, 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, 42.4% of adults in New Zealand led a lifestyle with insufficient physical activity in 2016 (WHO, 2018). Consumption of alcohol is projected to be 11.6 litres per person in 2020 and to increase to 11.8 litres in 2025 (WHO, 2016). Moreover, in 2016, 16% of adult males smoked tobacco compared with 14% for females, accelerating the incidence of lung cancer (WHO, 2015). Further, high disability rates affect the population in New Zealand. In particular, people aged between 55–69 approximately experienced roughly 183 years lived with disabilities (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 New Zealand are lower than Mongolia which scores 200 per thousand years lived with disabilities. However, it is higher than other countries in the region including Japan, Vietnam and South Korea, Australia who respectively report per thousand years lived with disabilities of 164.6, 166.9, 171 and 176.3 (IHME, 2020).

Figure 2 displays how YLDs have been decreasing in New Zealand since 1990, reaching 179.9 per 1000 population in 2010. However, YLDs have started to increase since 2010 and gradually reached 183 per 1000 population in 2017.

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



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

The economy has been positive and resilient, but due to COVID-19 hampered economic growth and high unemployment are a challenge

After embracing free-market policies of liberalization, privatization and deregulation in the mid-1980s, New Zealand's economy grew steadily during the 1990s (Commonwealth, 2020). In 2008, due to the global recession, GDP growth contracted and the economic expansion lost its momentum (OECD, 2019). However, after exports and domestic demand resumed, New Zealand's economy began to gradually grow again post-crisis, reaching and stabilizing at 0.85% in 2018 (World Bank, 2020a). New Zealand's stable and resilient economy has been highly dependent on sound expansionary macroeconomic policies, low government debt, strong domestic demand, exports and high commodity prices and net migration (OECD, 2019, IMF, 2020).

As the COVID-19 pandemic hit New Zealand, the country declared a National State of Emergency and a level 4 alert, indicating a strict lockdown except for those providing essential services. This has led to a decline in domestic demand, household spending, investments and commodity prices, as well as exports. Tourism, which accounts for 10% of New Zealand's GDP has also fallen sharply. According to the OECD economic outlook, assuming a one-hit scenario, New Zealand's GDP is projected to shrink by 9% in 2020. If a second wave of infections strikes again, GDP is expected to collapse by 10% and not recover before the end of 2021 (OECD, 2020).

To ease the economic and social impact of the pandemic, New Zealand has committed around NZD 62.1 billion as fiscal support. The country has taken extensive social protection measures, including boosting income support to citizens including sickness benefits, employment retention subsidies, deferred mortgage schemes, business tax relief measures, cash flows for enterprises, family leave and care policies, and financial support for the health care and aviation sectors (OECD, 2020; UNDP, 2020; World Bank, 2020).

As restrictions and lockdowns are lifted, economic activity is set to pick up relatively quickly but will not regain its original growth before the end of 2021. However, due to the high unemployment rate which is projected to reach 7.9% in 2020, fiscal measures protecting workers and businesses should remain in place (OECD, 2020). Additionally, ensuring macroeconomic recovery depends on adopting effective policies to strengthen total factor productivity, enhance business competition and dynamism, and increase collaboration across different agencies to boost aggregate demand (OECD, 2019; IMF, 2020).

As regards population ageing, the number of older people in the labour force has steadily been increasing. In 2018, 452,000 people aged between 55 to 64 were employed compared with 353,000 in 2010. The same pattern is observed for people over 65 years, with 168,000 employed in 2018 compared to 90,000 in 2010 (ILOSTAT, 2018).

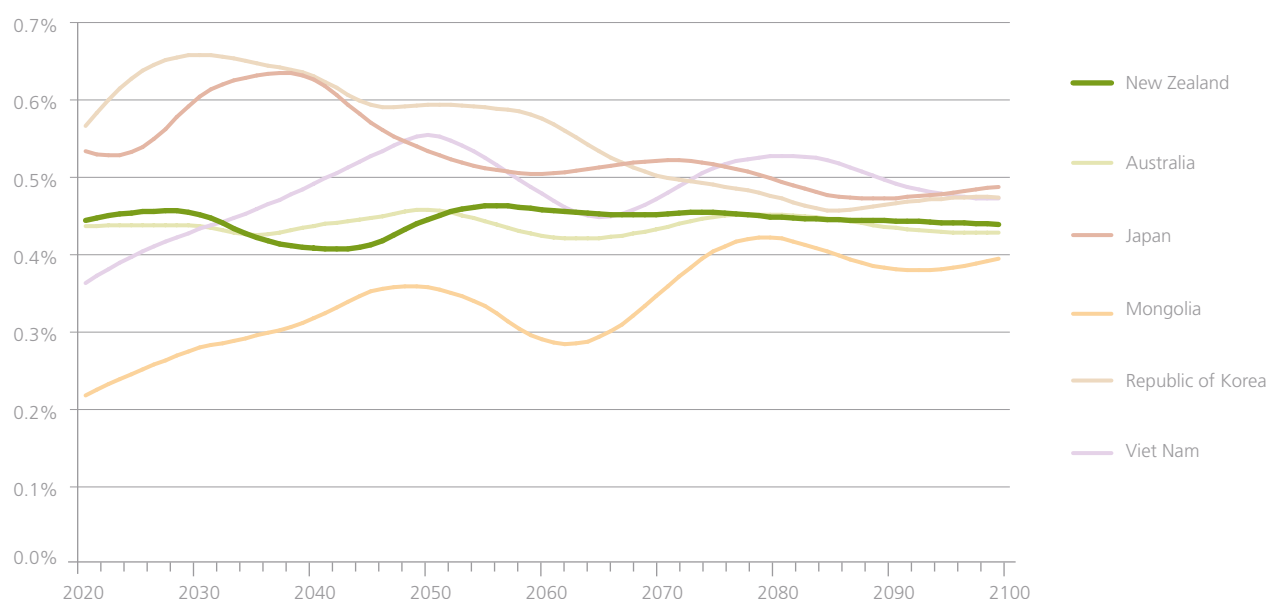
How will population ageing in New Zealand affect economic growth according to the models?

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 17.4% to 17.44%, contributing to a slowdown in per person GDP growth of around 0.02% 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 17.4% to 17.17%, which, according to our model estimates, would be expected to increase per person GDP by around 0.16%.

Accounting for the level of disability among those aged 55–69 years old, 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 percentage points annually through 2100.

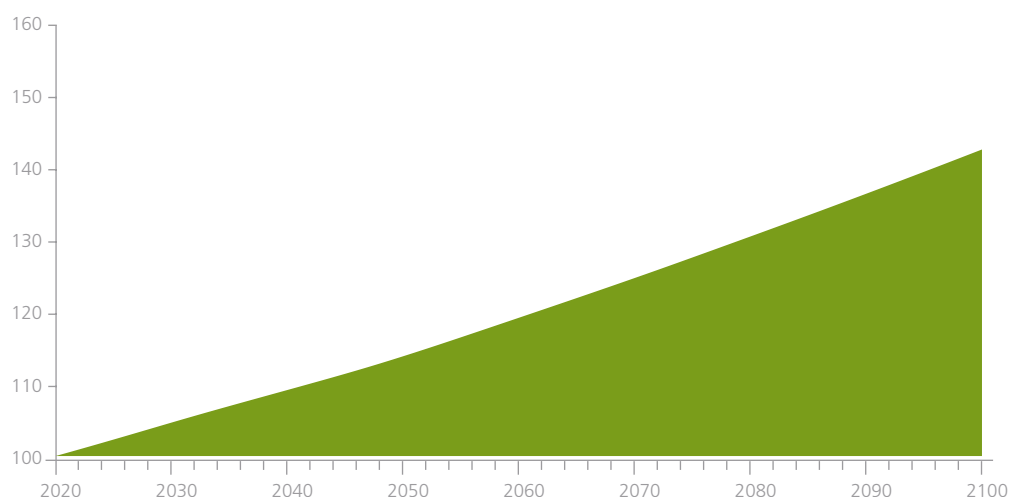
Figure 3. GDP growth attributable to a 5% improvement in disability rates among older population (55–69 years) compared to 2017 baseline disability rates, projections (2020–2100)



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, New Zealand could expect to see an additional 42.4 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 New Zealand 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 New Zealand'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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