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NEW ZEALAND INSTITUTE OF ECONOMIC RESEARCH

Aotearoa New Zealand in 2050

Preparing our retirement income policy for the future

NZIER report to Te Ara Ahunga Ora Retirement Commission

March 2025

About NZIER

New Zealand Institute of Economic Research (NZIER) is an independent, not-for-profit economic consultancy that has been informing and encouraging debate on issues affecting Aotearoa New Zealand, for more than 65 years.

Our core values of independence and promoting better outcomes for all New Zealanders are the driving force behind why we exist and how we work today. We aim to help our clients and members make better business and policy decisions and provide valuable insights and leadership on important public issues affecting our future.

We are unique in that we reinvest our returns into public good research for the betterment of Aotearoa New Zealand.

Our expert team is based in Auckland and Wellington and operates across all sectors of the New Zealand economy. They combine their sector knowledge with the application of robust economic logic, models and data and understanding of the linkages between government and business to help our clients and tackle complex issues.

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Key points

This report explores what Aotearoa New Zealand might look like in 2050 and how retirement income policy may need to adapt. Te Ara Ahunga Ora Retirement Commission commissioned this report as background to the 2025 Review of Retirement Income Policies.

What might Aotearoa New Zealand look like in 2050?

There are some aspects of the future that we can be confident about…

- **The population will be larger but will be growing more slowly.** New Zealand is projected to have around six million people. Because people are having fewer children than they used to, migration will become the main driver of population growth.
- **There will be more people in older age groups.** While the number of people under 40 will remain the same as today, the number of people over 40 will increase by a third, and the number of people over 65 will increase by about a half. This is mainly due to falling birth rates, but it is also influenced by rising longevity.
- **New Zealand will be more ethnically diverse.** Over time, migration and differences in birth rates will lead to a declining proportion of Pākehā/European people and a larger share of Māori, Pacific, Samoan, Asian, Chinese and Indian people. More people will live as part of a family, but family sizes will be smaller.
- **A smaller proportion of people will be available for work.** As more people will be retired, the labour force participation rate – the share of people over 15 who are employed or looking for work – will fall.

…and some aspects are more uncertain

- **High levels of migration are likely to continue.** Migration is likely to play an important role in driving population growth and maintaining the labour force. With the global population aged 65 and over expected to increase from 10% in 2025 to 16% by 2050, the demand for migrants will rise. New Zealand's migration levels will depend on its ability to attract skilled workers amid growing competition.
- **More people could continue to work after they reach 65.** As people live longer, they may work later in life, and perceptions of 'old age' may shift. While the extent of these trends is uncertain, they are unlikely to fully offset the overall decline in labour force participation.
- **The economy could be significantly larger.** Technological progress is likely to continue to support economic growth, but it is unclear whether New Zealand will keep pace with the global frontier. The economy could increase in size by more than a half in real terms, and real GDP per capita could be a third higher.
- **Inequalities are likely to persist.** While overall levels of income and wealth inequalities have been stable over the past 25 years, gender and ethnic pay gaps appear to be shrinking based on Stats NZ data. The drivers of these trends are complex and it is not clear how they will play out in the future.

What do these trends mean for retirement income policy over the next 25 years?

Under current policy settings, the system will provide similar living standards…

- **NZ Super will provide a similar income in relative terms**. Under current policy settings, NZ Super is tied to the average wage so that retiree living standards will rise in line with those of the working-age population.
- **KiwiSaver will play a larger role.** People retiring in 2050 will have had KiwiSaver for almost all their working lives, enabling those who have consistently contributed to build up larger balances and afford a higher standard of living in retirement. Estimates indicate that total KiwiSaver balances could reach 60–100% of GDP. Despite this, NZ Super will remain the main source of income for most retirees.

…but rising costs will require tough fiscal choices

- **Spending on NZ Super will be higher.** Assuming policy settings do not change, the larger number of retirees means that government spending on NZ Super will be about a fifth higher relative to GDP, after accounting for tax and the NZ Super Fund.
- **Health spending is also expected to rise.** An ageing population means higher health needs. In addition, prices are likely to increase in service-oriented sectors like health and education due to relatively slow productivity growth.
- **A smaller share of workers will be available to fund these costs.** As labour force participation falls, tax revenues will need to be raised from a smaller share of workers. Coupled with higher health spending, this will make it more challenging for the government to afford the rising cost of transfers and services.
- **This could result in rising taxes, reduced public services, or growing debt.** If the government leaves retirement income policy settings unchanged, it has three choices: raise tax revenue by around 5–10% per worker, reduce spending on other public services, or abandon its long-term fiscal objectives and allow public debt to grow to over 100% of GDP.

What role could retirement income policy have in shaping our future?

It is possible to design a system that is less affected by population ageing…

- **New Zealand's pay-as-you-go system will place a growing burden on younger generations as the population ages**. The current system relies on taxes on current workers to fund retiree incomes. As the number of retirees rises and the number of working-age people falls, each worker will need to contribute more to sustain the system.
- **This could be addressed by shifting towards more of a savings-based system.** In this approach, a greater share of retiree incomes is funded by savings accumulated over their working lives. This makes the system less vulnerable to demographic change.
- **A savings-based system could raise economic growth.** It would benefit from compounding returns, meaning that the same level of retirement income can be provided at a lower cost. It would also generate a large pool of retirement savings, potentially helping to deepen capital markets and support productivity growth.

…and this system could take multiple forms

- **It could involve placing more emphasis on private savings.** Over the next 25 years, we could see governments reduce the role of NZ Super and strengthen KiwiSaver. This would avoid some of the incentive problems created by paying for retirement incomes through general taxation but could perpetuate inequalities.
- **It could also involve pre-funding more of NZ Super using the NZ Super Fund.** Another option would be to maintain NZ Super and KiwiSaver as they are today but significantly raise contributions to the NZ Super Fund to cover more of the expected increase in future NZ Super costs. This option would avoid tying retirement income to earnings from working life but could involve larger economic distortions.

How easy will it be for New Zealand to adapt?

Change is manageable…

- **New Zealand is starting from a strong position.** Population ageing will not be as severe as in other OECD countries, and public pension spending is likely to remain below the OECD average.
- **Past experiences can provide useful lessons.** The country has successfully adapted to demographic change in the past and has gained experience from transitioning ACC to a fully funded model.

…but it is important to plan ahead

- **The longer we wait, the more costly the transition will be.** Whatever the approach, moving along the spectrum from pay-as-you-go towards savings-based creates a double burden on the working-age population, who must pay for current retirees as well as pre-fund the increased costs of future retirees. The costs of transition will rise as the population ages.
- **People need time to adjust.** Retirement income policy settings affect people's consumption and savings decisions over their lifetimes, so changes should be gradual and signalled far in advance. Thoughtful, planned, and reliable adjustments will help ensure a coherent and sustainable system while minimising disruption and costs.

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1 Introduction

1.1 This report explores what Aotearoa New Zealand will look like in 2050

Te Ara Ahunga Ora Retirement Commission (the Commission) undertakes a review of New Zealand's retirement income policies every three years. As background to the 2025 review, the Commission engaged NZIER to research the key trends affecting retirement income policy.

This report paints a picture of what Aotearoa New Zealand may look like in 2050 and explores how retirement income policy may need to adapt over the next 25 years. Rather than presenting a detailed analysis of policy options, it outlines key social and economic trends and presents broad approaches that the government could take.

This report draws on existing projections and, in some cases, extends them to 2050 using simple linear prediction models. An important limitation of these models is that they assume trends continue linearly without accounting for underlying drivers.

1.2 It begins with an understanding of today's retirement income system

It is important to start with an understanding of the structure, purpose and objectives of the retirement income system as it exists today so that we can consider how it may need to adapt to changing trends.

1.2.1 Structure

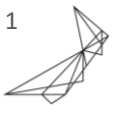
Aotearoa New Zealand's retirement income system consists of three components:

- NZ Superannuation (NZ Super), a universal public pension for people aged 65 and over
- KiwiSaver, a voluntary private savings scheme with auto-enrolment
- Private savings outside of KiwiSaver, such as cash, shares, and property.

1.2.2 Purpose

In 2020, the Retirement Commissioner released a statement defining the purpose of New Zealand's retirement income system (Te Ara Ahunga Ora Retirement Commission 2021):

> *A stable retirement income framework enables trust and confidence that older New Zealand residents can live with dignity and mana, participate in and contribute to society, and enjoy a high level of belonging and connection to their whānau, community and country.*
>
> *To help current and future retirees to achieve this, a sustainable retirement income framework's purpose is twofold:*
>
> 1. *To provide NZ Superannuation to ensure an adequate standard of living for New Zealanders of eligible age. NZ Super is the Government's primary contribution to financial security for the remainder of a person's life.*



2. *To actively support New Zealanders to build and manage independent savings that contribute to their ability to maintain their own relative standard of living.*

The retirement income system sits within the broader government provision of infrastructure also needed to enable older New Zealanders to live well, such as health care, housing, and transport.

As this purpose statement makes clear, the main component of the government's retirement income policy is NZ Super, which aims to provide financial security and an adequate standard of living. KiwiSaver aims to supplement NZ Super by helping people smooth their incomes over their lifetimes.

1.2.3 Objectives

The effectiveness of the government's retirement income policy can be assessed from a range of perspectives, including:

- **Adequacy** – How well does the system enable people to maintain a reasonable standard of living in retirement?
- **Equity** – How does it affect poverty and inequality, including between genders, ethnic groups, and generations?
- **Sustainability** – How affordable is the system over the long term?
- **Efficiency** – How does the system affect people's decisions to work and save?

1.3 The retirement income system is affected by a range of trends

This report covers the key trends relevant to retirement income policy, including:

- **Demographics** – population, longevity, birth rates, immigration, ageing, ethnic diversity, and family and household structure
- **Working life** – labour force participation, hours worked per week, economic growth, and incomes
- **Savings and wealth** – KiwiSaver balances, household and national savings, and home ownership rates
- **Government finances** – government spending, borrowing, and debt**,** with a focus on NZ Super and the role of the NZ Super Fund.

Retirement income policy plays an important role in ensuring that people have a good standard of living in old age. However, other policies matter, too, from housing to healthcare. While this report touches on wider policies that affect older people, it focuses primarily on retirement income.

1.4 This report combines information from different sources

This report primarily presents secondary rather than primary research. In other words, we focus on gathering existing data and synthesising it into a coherent story rather than generating new forecasts and projections.

We present projections from Stats NZ, the New Zealand Treasury, and other sources. For trends that do not currently have projections, we develop simple projections by extending existing data using linear prediction models.

Linear prediction models assume that trends continue linearly – the variable changes by a constant absolute amount each year, equal to the average change over a given historical period. They do not consider underlying drivers or the interactions between different variables. Creating new models that address these limitations was out of scope for this report.

1.5 It uses scenarios and probability intervals to indicate uncertainty

According to a well-known Danish proverb, "*it is difficult to make predictions, particularly about the future.*" There is a lot of uncertainty about what New Zealand could look like in 2050.

We describe this uncertainty in two ways, depending on the information available:

- We present probability intervals (PI). A 90% PI means that there is a 90% probability that the true future value will fall within the interval, according to the projection model and its assumptions. Probability intervals quantify the level of uncertainty associated with the projections.
- We present different future scenarios. Scenarios show how the projections depend on key assumptions, such as migration and productivity growth.

The data presented in this report are projections, not forecasts. They do not necessarily represent what is most likely to happen but instead illustrate what could happen if a given set of assumptions holds true.

The projections do not account for external influences and adverse events such as wars, pandemics, or natural disasters. The size, frequency and persistence of these shocks could have large impacts on the overall trends.

1.6 Each section describes a different aspect of New Zealand in 2050

Section 2 discusses demographics, including population size, age and longevity, gender and ethnicity, and household and family structure. Section 3 covers the labour force, and section 4 discusses the size of the economy and average incomes. Section 5 covers savings and wealth, and section 6 looks at economic inequality. Section 7 explores government finances, including spending and debt. Finally, section 8 discusses implications for the retirement income system. The final section sums up the report.

2 Demographics

This section presents demographic projections from Stats NZ (2022b; 2022a; 2021a). We present the median projections alongside 50% and 90% probability intervals.

Where available, we present four scenarios provided by Stats NZ:[1]

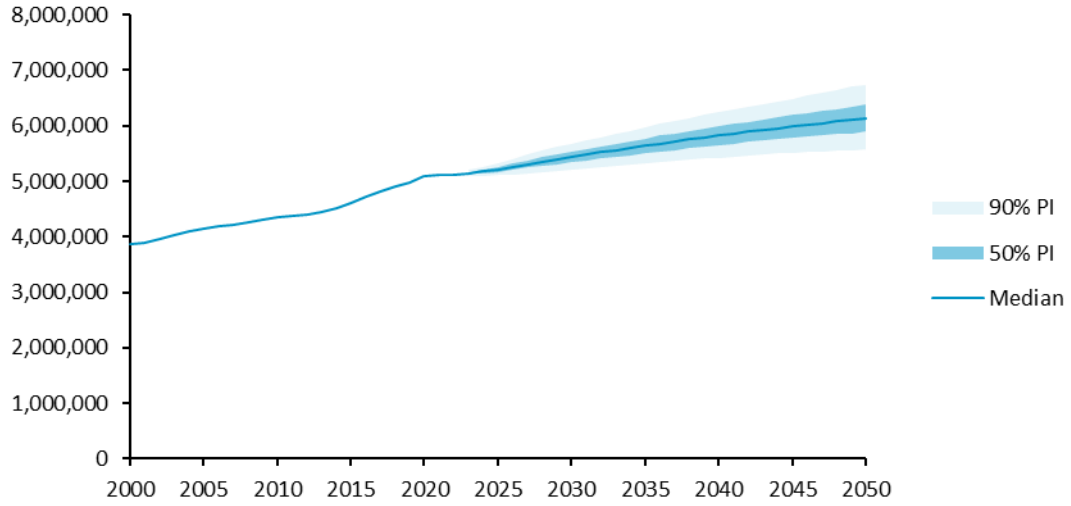
- **Very high fertility** – long-term total fertility rate of 2.3 births per woman (compared to 1.65 under the median projection).
- **Very low mortality** – life expectancy at birth increases by 0.3 years of life per year (compared with 0.1 under the median projection).
- **No migration** – no migrant arrivals or departures (compared to net migration of 25,000 a year under the median projection).
- **Very high migration** – long-term net migration of 50,000 a year (compared to 25,000 a year under the median projection).

2.1 New Zealand will have a population of around six million

According to Stats NZ's median national population projection (2022b), the population is set to grow by a fifth between 2025 and 2050,[2] as shown in Figure 1. By 2050, the population will be 6.1 million (90% PI: 5.6–6.7 million).

The population is expected to grow more slowly than in the past. Between 2000 and 2025, the population grew by 35% and added 1.4 million people. Between 2025 and 2050, the population is projected to grow by 0.9 million people (90% PI: 0.5–1.4 million), an increase of 18% (90% PI: 9–27%).

Figure 1 Population, 2000 to 2050



Source: Stats NZ (2022b)

Population growth is driven by natural increase (births minus deaths) and net migration (arrivals minus departures), as shown in Figure 2.

[1] We use the same scenario names as Stats NZ. Stats NZ uses the term 'fertility' to refer to the number of births per woman. The term 'total fertility rate' refers to the average number of births that women would have in their lifetime, if age-specific birth rates remained constant.

[2] Unless otherwise stated, all years in this report refer to the year ended June.

New Zealand's total fertility rate – the average number of births per woman – has fallen below the replacement rate of 2.1 births per woman since 2013 (Stats NZ 2024f). This means that the number of births is not increasing in line with the population.

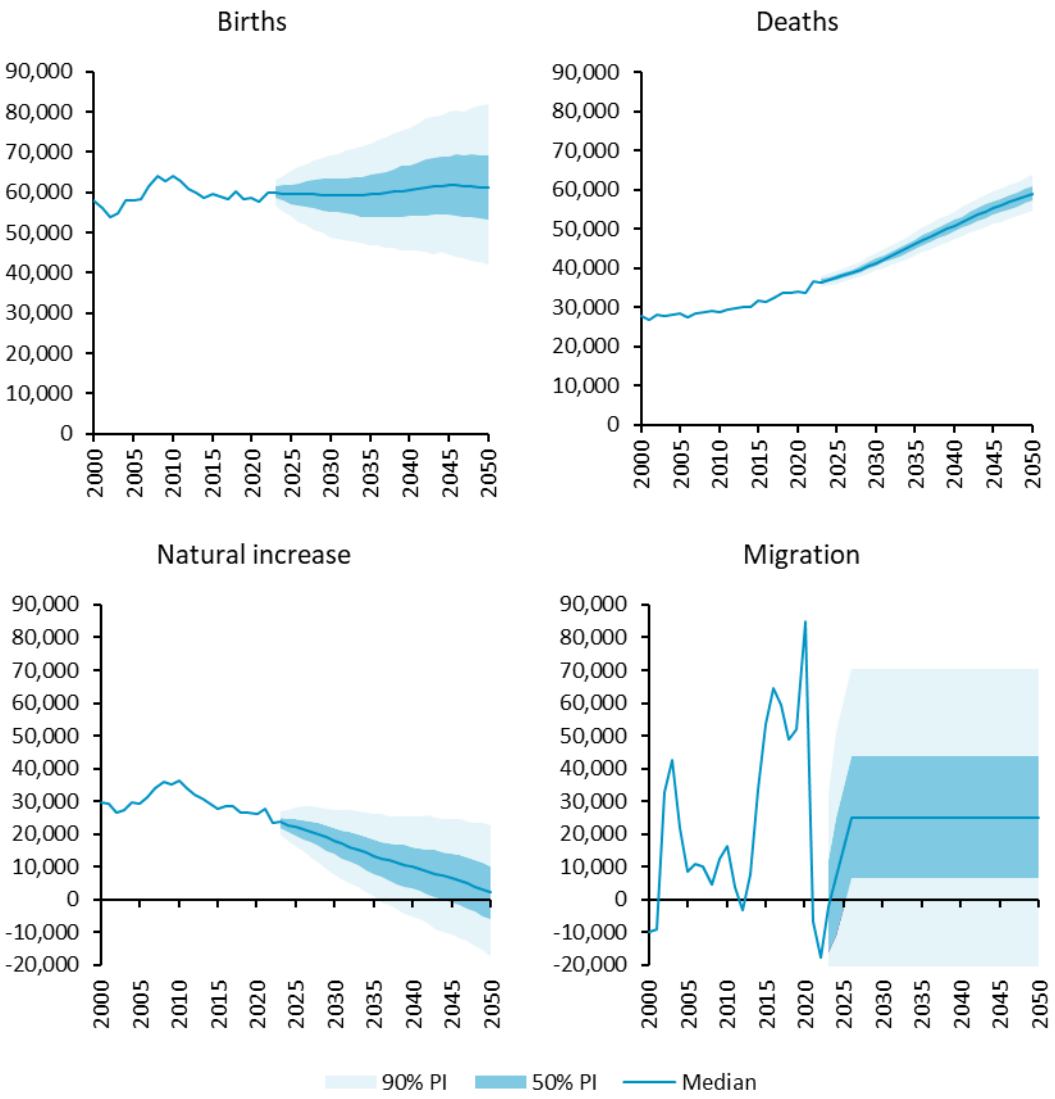
The decline in birth rates reflects global trends in developed countries. Women are having fewer children due to a range of factors, such as changing social norms and economic conditions.

Due to the ageing population, the number of deaths per year is expected to rise. As a result of flatlining births and rising deaths, the natural increase falls from 22,100 in 2025 to just 2,200 in 2050 (90% PI: -17,300–22,700) – by which point the chance of a natural decrease is over 1 in 4.

As the natural increase falls, migration will become the main driver of population growth. Based on the results of an expert elicitation survey and historic trends, Stats NZ assumes median net migration of 25,000 from 2026 onwards (90% PI: -20,300–70,300). It is worth noting that migration has exceeded expectations over the past 25 years, causing Stats NZ to successively raise its population projections (Stephens 2024).

The natural increase is expected to continue to fall, and population growth will continue to slow over the second half of the 20th century. Treasury modelling indicates that the population will converge to a steady state of 7.5 million by 2100 (Binning et al. 2024).

Figure 2 Drivers of population growth, 2000 to 2050



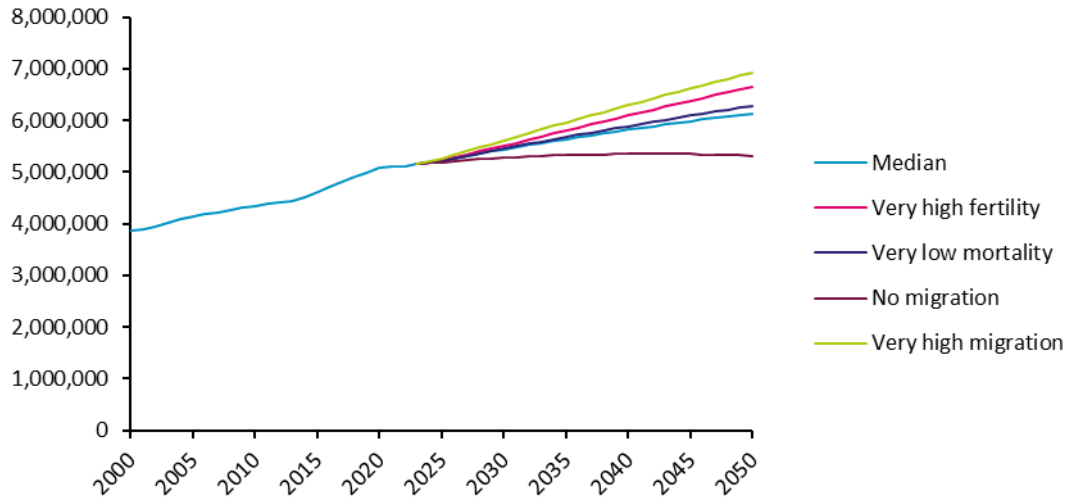
Note: Natural increase is births minus deaths. Net migration is migrant arrivals minus migrant departures.

Source: Stats NZ (2022b)

As Figure 2 figure shows, the uncertainty in the population projections mainly comes from uncertainty about the number of births and net migration. The number of deaths is more certain.

Figure 3 shows how population growth from 2025 to 2050 varies under different scenarios. Under the very high fertility and very high migration scenarios, the population continues to grow in line with historic trends, reaching 6.7 million and 6.9 million, respectively. Under the no migration scenario, the population stops growing and begins to decline.

Figure 3 Population scenarios, 2000 to 2050



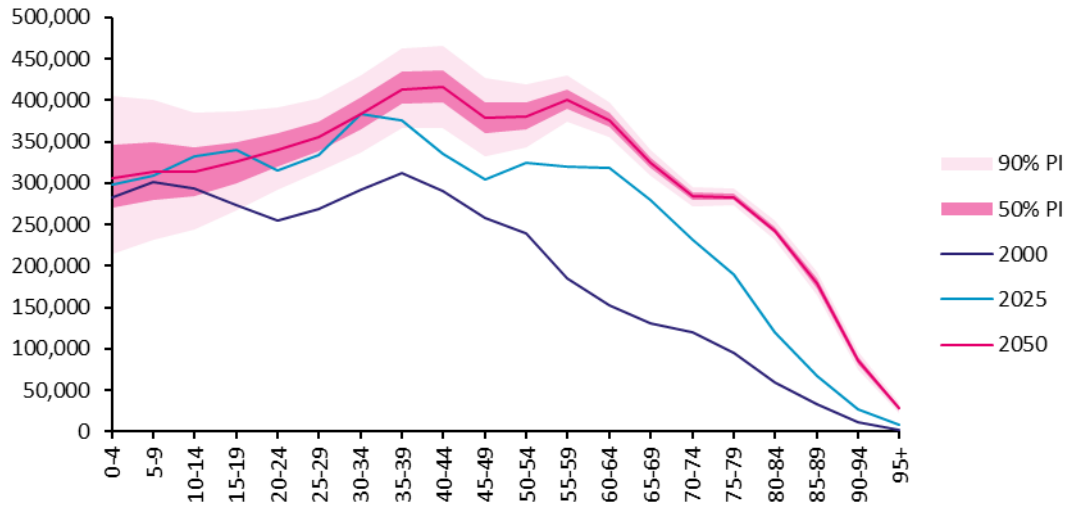
Source: Stats NZ (2022b)

2.2 The population will continue to age

As shown in Figure 4, there will be approximately just as many people under 40 in 2050 as there are today. However, there will be around a third more people aged 40 or over. As a result, the median age will rise from 38.9 years in 2025 to 43.7 years in 2050 (90% PI: 41.7–46.1 years).

While most ethnic groups will experience population ageing, some ethnic groups are projected to have a relatively younger age structure in 2050. Using a simple linear prediction model to extend Stats NZ's national ethnic population projections (2022a) to 2050, the median age will be 46 years for the 'European and Other' ethnic group, 34 years for Māori, 40 years for Asian people, and 31 years for Pacific peoples.

Figure 4 Population age distribution, 2000, 2025 and 2050



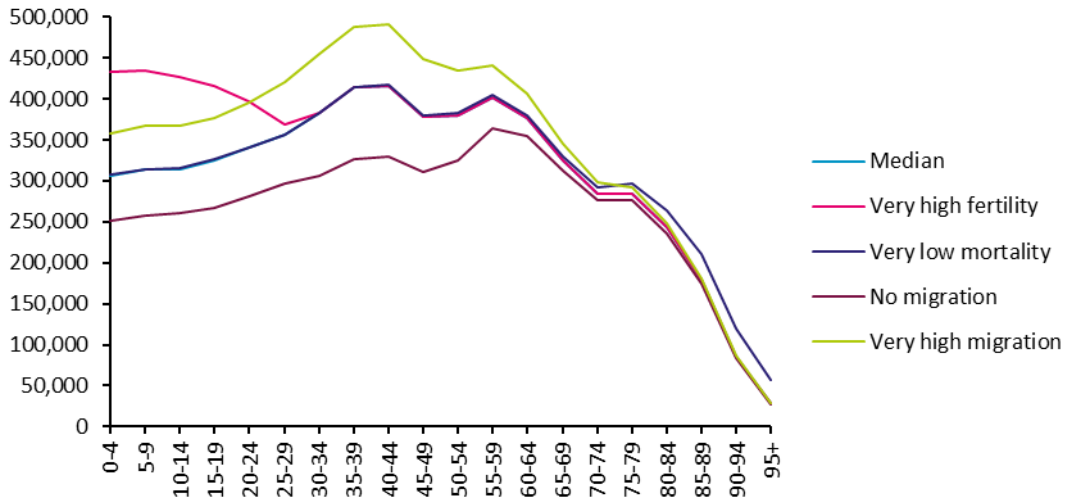
Source: Stats NZ (2022b)

Population ageing is primarily due to people having fewer children and people living longer. Although it is accentuated by the large number of baby boomers[3] moving into older age groups, this is not the main cause.

Assuming these trends continue, people in 2050 will continue to expect the population to continue to age through the latter half of the 21st century. Treasury modelling indicates that the age structure will stabilise as the population approaches its steady-state level from 2100 (Binning et al. 2024).

Figure 5 shows how different scenarios will affect the age distribution in 2050. The very high fertility scenario results in more people aged under 25, and the very high migration scenario results in more people aged under 65. Under the no migration scenario, there will be significantly fewer people aged under 65. The very high fertility, no migration, and very high migration scenarios do not significantly change the number of people aged 65 and over. The very low mortality scenario raises the number of people aged 65 and over, especially the number aged 85 and over.

Figure 5 Population age distribution scenarios, 2050



Source: Stats NZ (2022b)

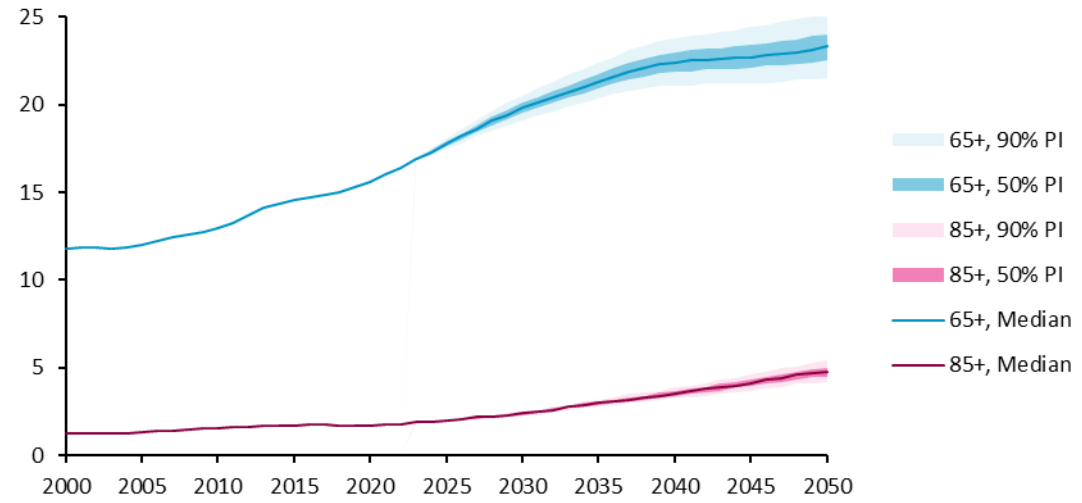
2.3 There will be more people over 65 compared to the working-age population

The proportion of the population aged 65 and over will rise by around a third, from 17.8% today to 23.3% in 2050 (90% PI: 21.5–25.3%), as shown in Figure 6. The share of the population aged 85 and over will more than double, from 2.0% to 4.8% (90% PI: 4.2–5.4%).

[3] Baby boomers are people born between 1946 and 1964. They are between 61 and 79 years old today and will be between 86 and 104 years old in 2050.

Figure 6 Population aged 65+ and 85+, 2000 to 2050

Percent of total population



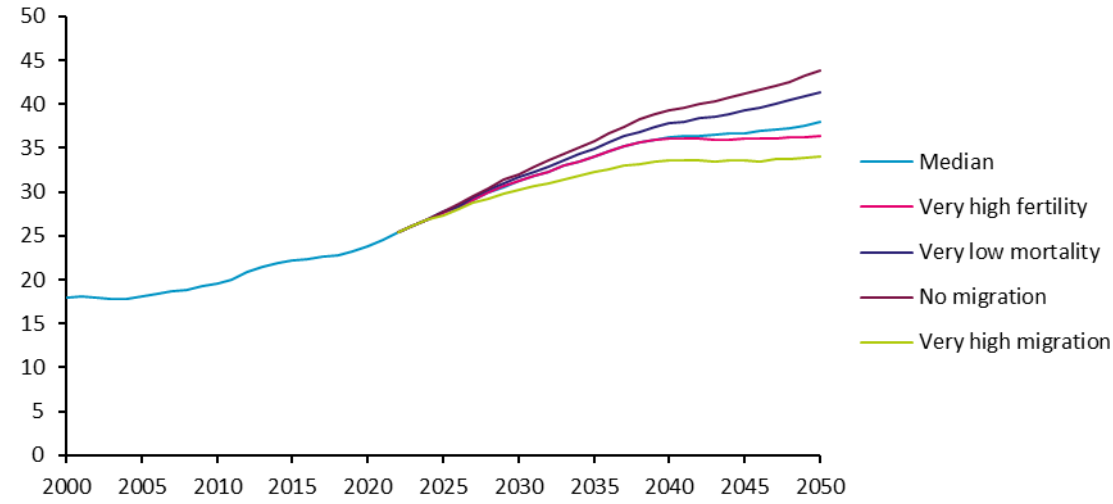
Source: Stats NZ (2022b)

The old-age dependency ratio – the number of people aged 65 years and over for every 100 people aged 15–64 – will rise from 27.7 to 37.9, as shown in Figure 7. In other words, the number of 'working-age' people per 'older' person will fall from 3.6 to 2.6.

Under very high fertility or migration, the old-age dependency ratio will increase more slowly, to 36.4 and 34.0, respectively. Under very low mortality or no migration, it will increase faster, reaching 41.4 and 43.9, respectively.

Figure 7 Old-age dependency ratio scenarios, 2000 to 2050

Number of people aged 65+ per 100 people aged 15-64



Source: Stats NZ (2022b)

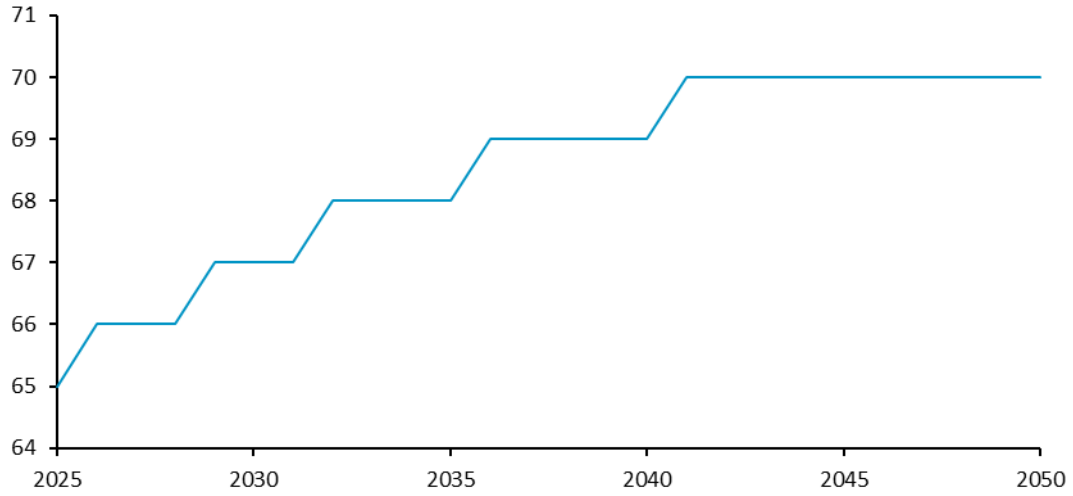
The old-age dependency ratio has an important limitation: it assumes a fixed working age of 15–64 and a retirement age of 65 and over, overlooking the fact that people are likely to

work longer as longevity increases (see section 3.3). Our perceptions of what counts as 'old age' could shift significantly over the next 25 years.

To hold the old-age dependency ratio constant at 2025 levels, the cut-off age would have to increase from 65 to 70 by 2050, as shown in Figure 8.

Figure 8 Dependency-stabilising age, 2025 to 2050

Cut-off age that stabilises the old-age dependency ratio at 2025 levels



Note: This figure is based on a figure presented in Binning et al. (2024) but has been recalculated from Stats NZ projections. Although we use 2025 rather than 2020 as the base year, the dependency-stabilising age increases more slowly, suggesting methodological differences.

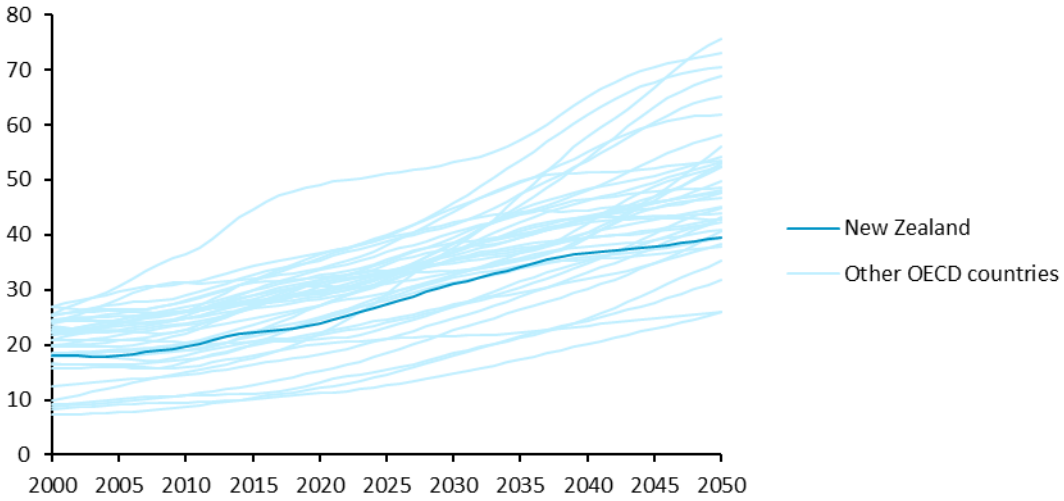
Source: NZIER analysis based on Stats NZ (2022b)

2.4 The old-age dependency ratio will remain below many OECD countries

While the old-age dependency ratio will rise significantly in New Zealand, it will increase less than in other OECD countries, as shown in Figure 9. As a result, New Zealand will move from the middle of the distribution of OECD old-age dependency ratios to near the bottom.

Figure 9 Old-age dependency ratio of OECD countries, 2000 to 2050

Number of people aged 65+ per 100 people aged 15-64



Note: The projections in this figure are from the UN World Population Prospects, and the UN projection for New Zealand differs slightly from the median Stats NZ projection.

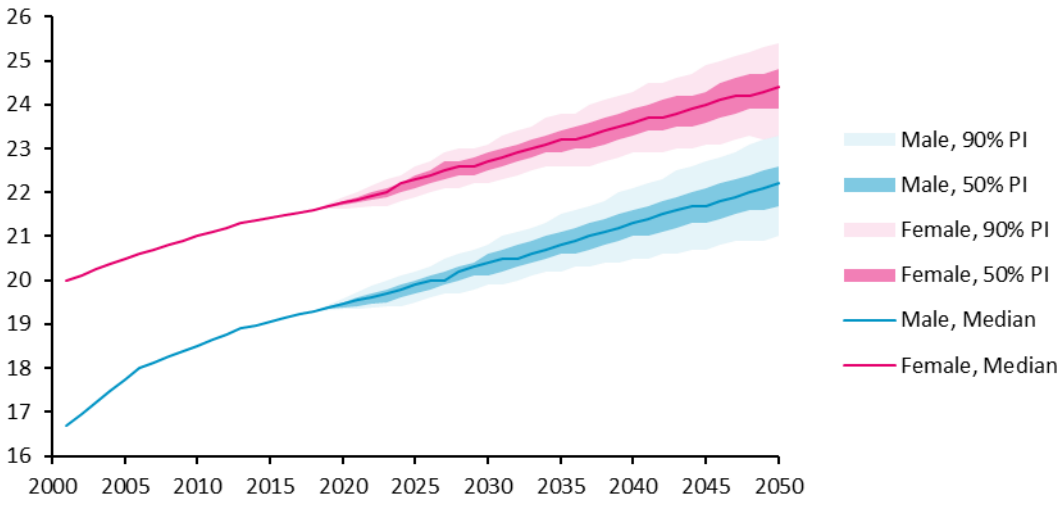
Source: UN Department of Economic and Social Affairs (2024)

2.5 People will live around two years longer

On average, people aged 65 in 2050 (born in 1985) will expect to live around 2 years longer than people aged 65 do today, as shown in Figure 10. Life expectancy at age 65 will rise from around 22.3 years for women and 19.9 years for men in 2025 to 24.4 years for women (90% PI: 23.3–25.4 years) and 22.2 years for men (90% PI: 21.0–23.3 years). Improvements in healthcare, lifestyle changes, and socioeconomic conditions drive the increase in life expectancy.

Figure 10 Period life expectancy at age 65, 2000 to 2050

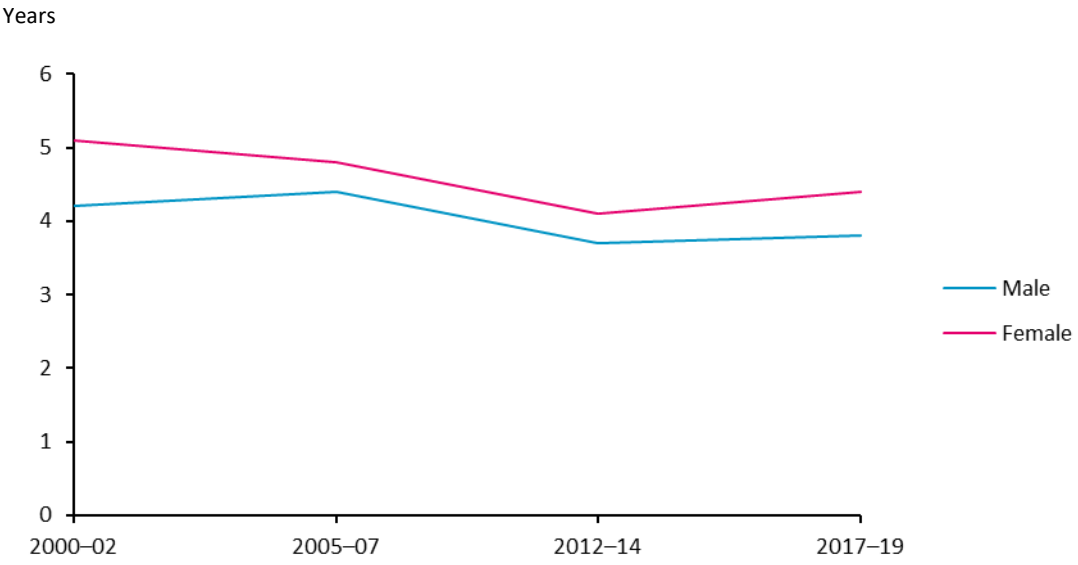
Years



Source: Stats NZ (2022b)

As Figure 11 shows, life expectancy at age 65 is about four years lower for Māori than non-Māori. The gap has reduced by about half a year over the past 25 years.

Figure 11 Gap between Māori and non-Māori life expectancy at age 65, 2000–02 to 2017–19



Source: Stats NZ (2022b)

2.6 New Zealand will be more ethnically diverse

Stats NZ has produced national ethnic population projections up until 2043 (2022a). We extended these to 2050 using a simple linear prediction model, which assumes that the share of the population in each ethnic group continues to grow between 2043 and 2050 at the same rate as the 2025 to 2043 average. Population change and ethnic identities are influenced by complex and uncertain factors such as birth rates, migration, and inter-ethnic mobility, so these projections provide a rough approximation of overall trends rather than a reliable forecast.

Figure 12 compares the ethnic makeup of the population in 2025 and 2050, both for the total population and for people aged 65 years and over. Overall, New Zealand will be more ethnically diverse in 2050 than it is today. Except for the 'European or Other' ethnic group, all ethnic groups will have a larger share of the population.[4] The share of people in the 'European or Other' ethnic group will fall from 69% to 65%, and the Māori share will rise from 18% to 22%, the Asian share will rise from 17% to 26%, and the Pacific peoples share will rise from 9% to 12%.

Although the population aged 65 years and over will continue to have a larger share of the 'European or Other' group than the general population (74% in 2050 compared to 83% in 2025), minority ethnic groups will grow particularly quickly. The Māori, Asian, and Pacific peoples shares will each increase by around a half (from 8% to 12%, from 9% to 15%, and from 3% to 5%, respectively).

[4] This report follows the ethnic group definitions used by Stats NZ. Ethnic groups are not mutually exclusive, and individuals are included in each ethnic group they identify with.

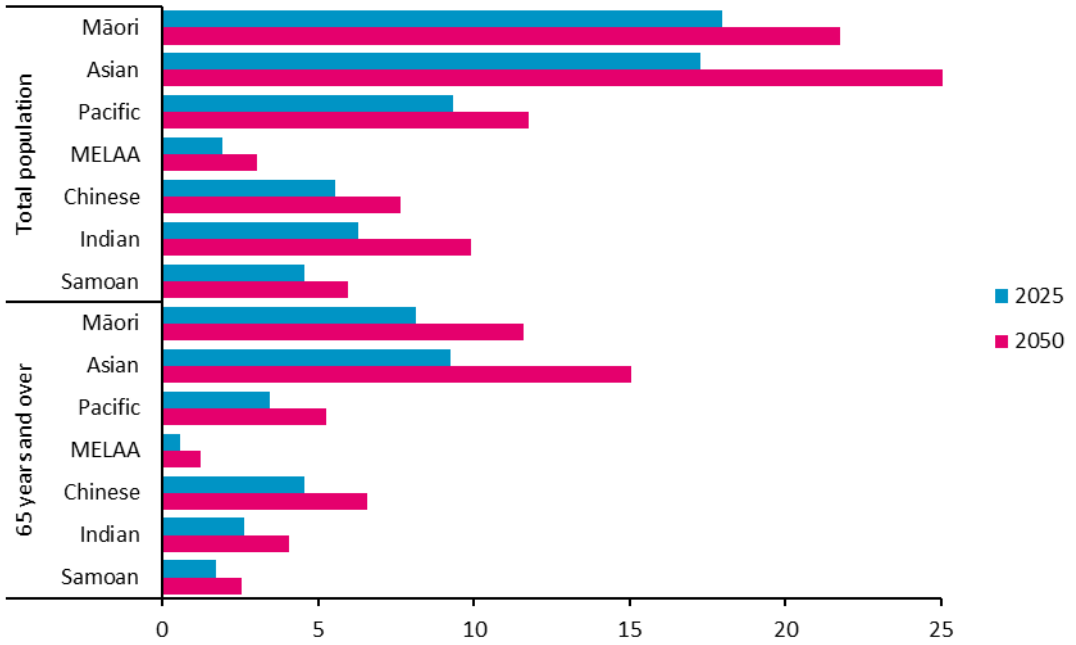
The fall in the 'European or Other' share is due to a decline in the rate of natural increase. The rise in the Māori and Pacific peoples shares is driven by the natural rate of increase, which is projected to rise over time, and ethnic intermarriage. The growth in the Asian, Chinese and Indian share is driven by net migration.

Increased ethnic diversity has significant implications for the retirement income system, as it introduces greater variation in working lives, saving behaviours, and family support structures. Māori, Asian, and Pacific peoples often have more collectivist norms (Podsiadlowski and Fox 2011) and may place more emphasis on whānau- or community-based care for the elderly. These groups also tend to have lower incomes, shorter life expectancy, and higher birth rates.

Since 2006, several iwi/hapū have established iwi savings schemes – financial programmes designed to support members in achieving financial security (Bidois and Hynds 2025). These schemes are likely to become more important as the Māori population grows.

Figure 12 Population by minority ethnic group, 2025 and 2050

Percent of total population and percent of population 65 years and over



Note: Ethnic groups are not mutually exclusive, and people are included in each ethnic group they identify with.

Source: NZIER projections based on Stats NZ (2022a)

2.7 The share of single-person households will fall

Stats NZ has also produced family and household projections up to 2043 (2021a). Like the national ethnic population projections, we extended these to 2050 using a simple linear prediction model.

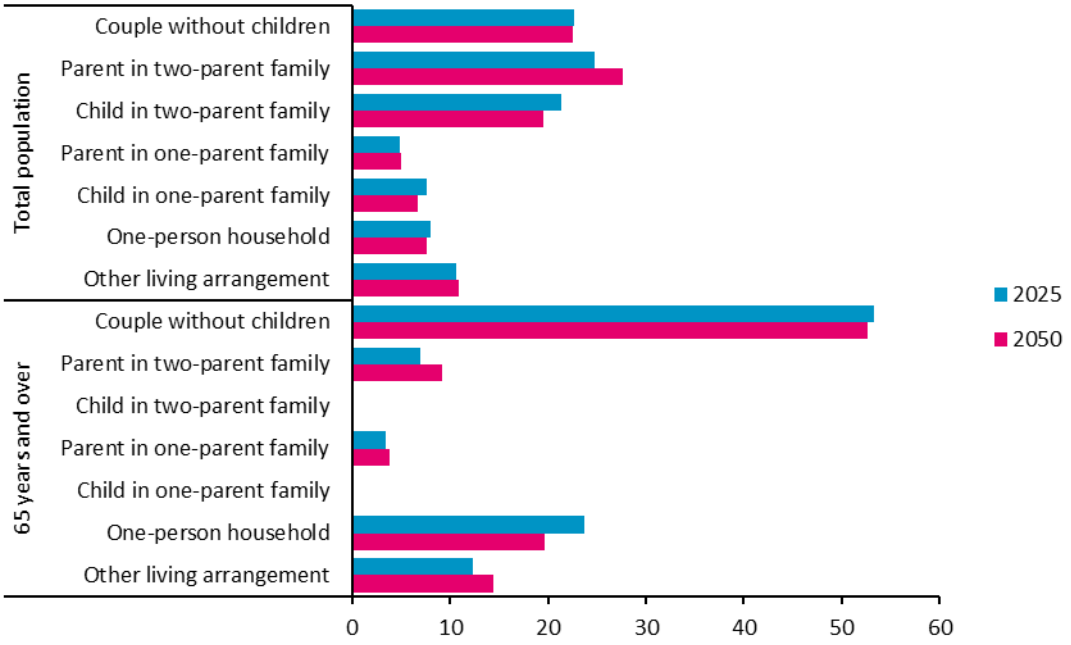
Figure 13 compares living arrangements in 2050 to 2025. A larger share of households will contain a family, at 76% compared to 74% today. This is due to more people reaching ages where they form households and young adults living with their families for longer. As a result of smaller family sizes, the average household size will be slightly smaller, at 2.5

people per household in 2050 compared to 2.7 today. As a result, the share of people who are parents in family households will be higher.

Compared to the general population, people aged over 65 are significantly more likely to be living as a couple without children or in single-person households. Counterintuitively, even though the number of older people in single-person households will rise in absolute terms, it is expected to decrease as a share of the population aged 65 and over.

Figure 13 Population by living arrangement, 2025 and 2050

Percent of total population and percent of population 65 years and over



Source: NZIER projections based on Stats NZ (2022a)

2.8 Summary: population ageing is a key challenge for retirement income policy

This section shows that population growth is slowing, mainly because people are having fewer children but also because people are living longer. As a result, the age structure of the population is changing. In 2050, there will be a smaller share of working-age people and a significantly larger share of people aged 65 and over. Each retirement-age person will be supported by a smaller number of working-age people.

In addition, increased ethnic diversity could lead to a broader range of cultural norms around saving and family support, which may have implications for retirement income policy.

3 Labour force

This section presents labour force projections from Stats NZ (2021b). The projections are based on 2020 data and do not reflect the rise in labour force participation observed between 2020 and 2025. While the 2025 figures presented in this report do not reflect the

current state of the economy, comparing them with 2050 figures provides a helpful indication of long-run trends.

We present the median projections alongside 50% and 90% probability intervals. Stats NZ does not provide scenarios for labour force projections.

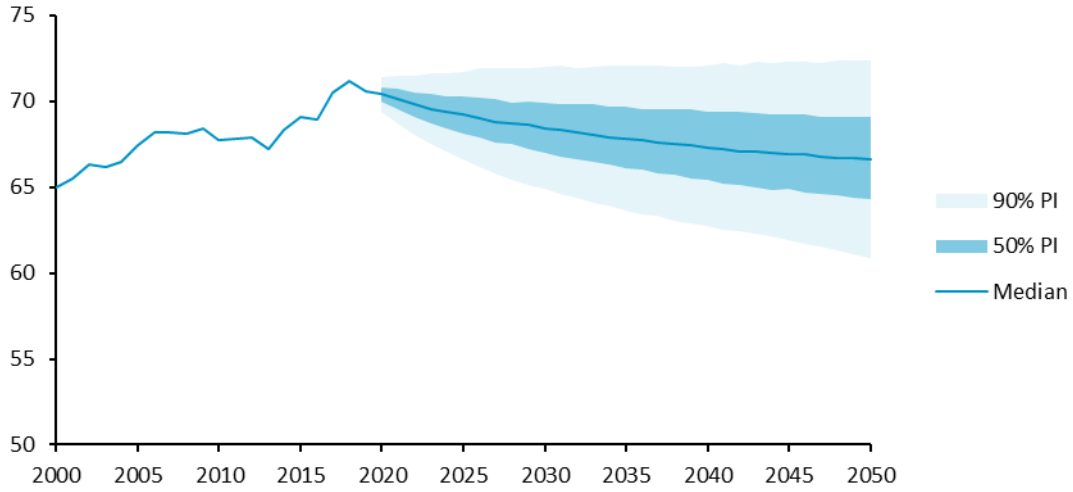
3.1 A smaller proportion of people will be available for work

Due to the ageing population, a smaller proportion of people will be available for work, as shown in Figure 14. The labour force participation rate[5] will fall by around 2.6 percentage points, from around 69.2% today to 66.6% in 2050 (90% PI: 60.9–72.4%), as a larger share of people will be retired.

It should be noted that the actual labour force participation rate in the year ending June 2024 was higher than Stats NZ projected in 2021, at 71.8% instead of 69.4% (Stats NZ 2024c).

Figure 14 Labour force participation rate, 2000 to 2050

Percent of population aged 15 and over in the labour force



Source: Stats NZ (2021b)

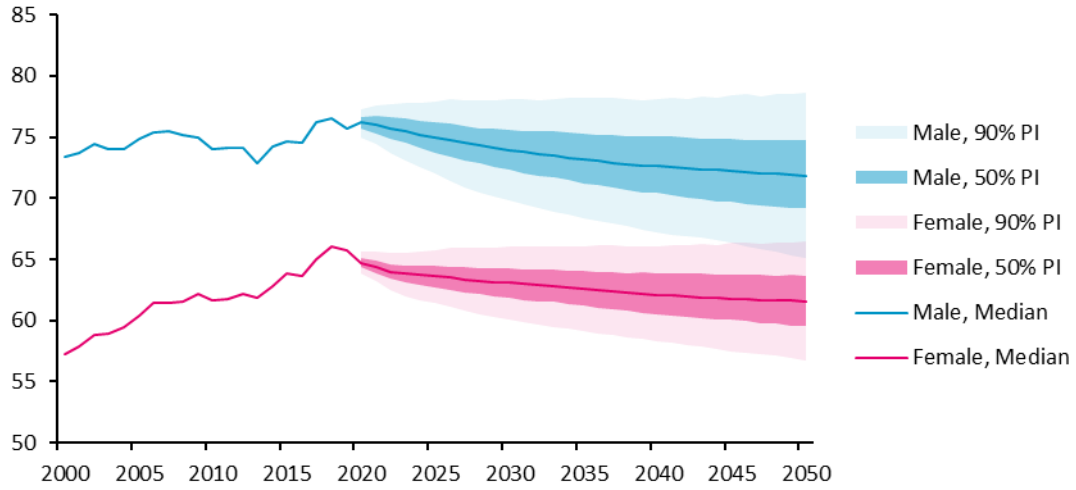
Labour force participation is likely to fall more slowly for women than for men, as shown in Figure 15. This trend reflects several factors, including declining birth rates, which leads to fewer women taking time out of the workforce to care for their families. As a result, the gender gap in labour force participation is projected to shrink.

Decisions to participate in the labour force are influenced by policy settings. Raising the age of eligibility for NZ Super could slow the decline in labour force participation as the population ages. Targeted policies – such as flexible work arrangements and caregiver support – could help reduce barriers faced by underrepresented groups, such as women, Māori and Pacific peoples, and people with disabilities.

[5] The labour force participation rate is the size of the labour force (the number of people available to work) divided by the total population.

Figure 15 Labour force participation rate by sex, 2000 to 2050

Percent of population aged 15 and over in the labour force



Source: Stats NZ (2021b)

While Stats NZ does not provide scenarios for labour force projections, the implications of different migration, mortality, and birth rate assumptions can be inferred from the population projections. Because high migration will raise the number of working-age people, it would increase the labour force participation rate. Conversely, if migration stops, the labour force participation rate will fall further. Low mortality will also cause the labour force participation rate to fall by raising the number of retirees. High birth rates could decrease the labour force participation rate as more people would take time out of work to care for children.

3.2 The median worker will be around two years older

As the population ages and labour force participation among older people rises, the labour force will become older. Stats NZ estimates that the median age of the labour force will rise from around 41.8 years today to 43.9 years in 2050 (90% PI: 42.6–45.6 years). The proportion of the labour force aged 65 years and over will rise from around 7.5% today to 9.0% in 2050 (90% PI: 6.6–11.3%).

3.3 People will keep working for longer

The labour participation rate will be higher for older ages as more people will retire later, as shown in Figure 16. Among people aged 65–69, labour force participation will rise from 47% today to 52% in 2050. Counterintuitively, the overall labour force participation rate for people aged 65 years and over will be lower (22% in 2050 compared to 24% today) due to increasing numbers of people in older age groups.

Although labour force participation will rise, it is not expected to keep pace with longevity. While people aged 65 will expect to live around two years longer in 2050 than they do today, labour force participation in the 67–71 age group in 2050 will be lower than labour force participation in the 65–69 group in 2025 (41% compared to 47%).

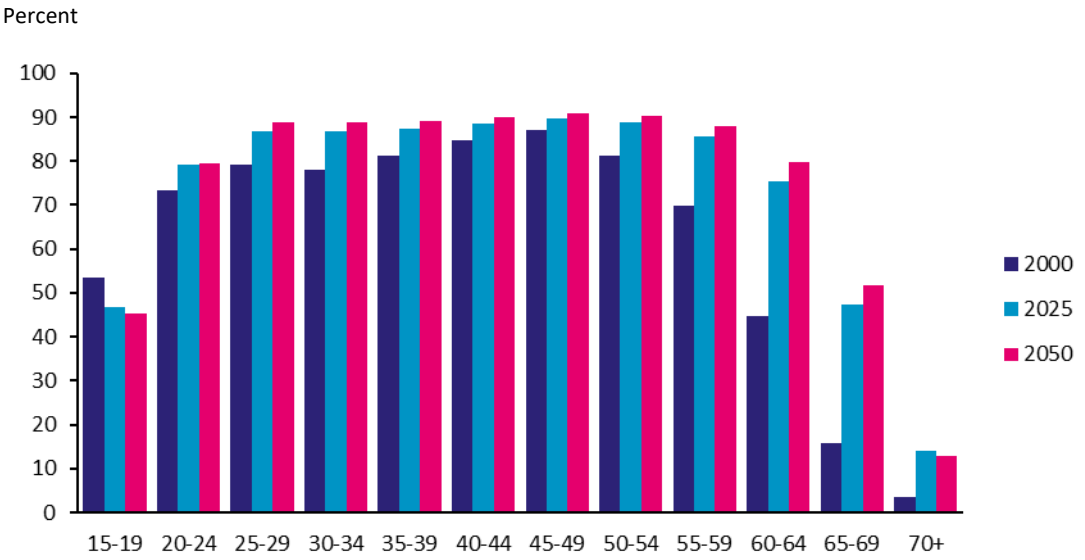
Over the past 25 years, labour force participation in the 65–69 age group has risen rapidly from 16% to 47% – much faster than was predicted at the start of the century (Stephens 2024). As a result, New Zealand now has the fourth-highest 65–69 labour force participation rate in the OECD (OECD 2024a). This has been driven by a range of factors (The Treasury 2021a), such as:

- People are staying healthier for longer
- Labour markets have become more flexible over time, enabling older people to take on jobs that used to be reserved for the young
- A shift from physically demanding work to knowledge and skill-based jobs
- Changes in government policy, including the banning of mandatory retirement in 1991, the rise in the eligibility age for NZ Super from 60 to 65 between 1992 and 2001, and policies to improve attitudes toward older workers and encourage their continued workforce participation.

The absence of means testing for NZ Super is also likely to have played a role. Universal coverage reduces potential disincentives to remain in the workforce at older factors. Other factors – such as income constraints and living costs – also influence decisions to keep working beyond the age of eligibility.

The rise in labour force participation in the 65–69 age group projected by Stats NZ between 2025 and 2050 (from 47% to 52%) is much smaller than the rise experienced between 2000 and 2025 (from 16% to 47%). It is possible that labour force participation will continue to rise at faster rates than Stats NZ projects.

Figure 16 Labour force participation rate by age, 2025 and 2050

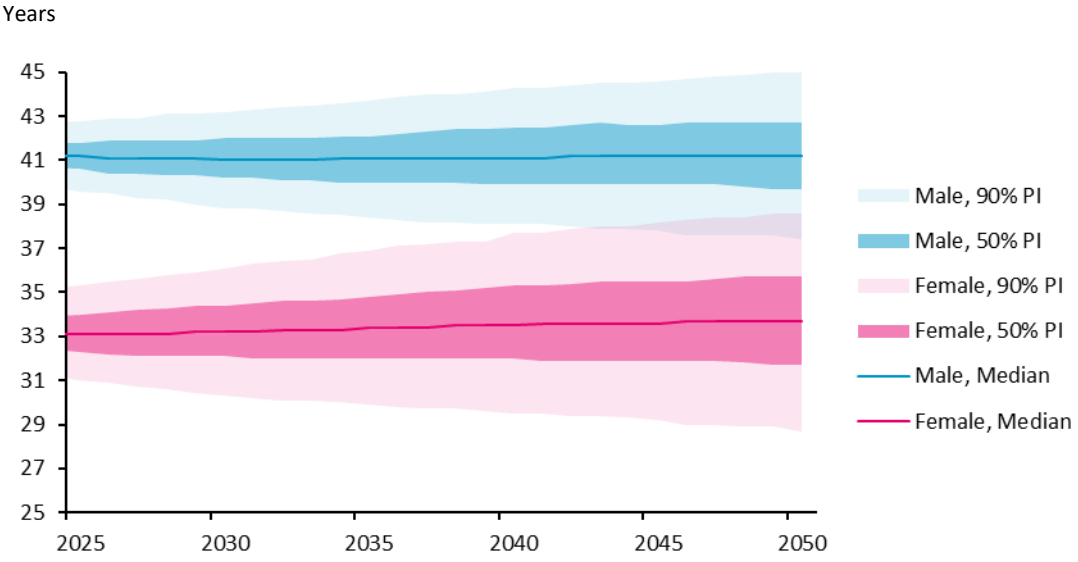


Source: NZIER calculations based on Stats NZ (2021b; 2020)

3.4 The number of hours in paid work per week is expected to stay constant

The number of average hours worked in paid employment per week in 2050 will likely be similar to today, as shown in Figure 17. Average hours of paid work will increase slightly for women as a result of having fewer children.

Figure 17 Average hours of paid work by sex, 2025 to 2050



Source: Stats NZ (2021b)

3.5 Summary: a smaller proportion of workers will bear the costs of the system

As this section shows, population ageing will result in declining labour force participation. Although people will keep working for longer as life expectancies rise, this will not make up for the changes in the population age structure. As a result, a smaller proportion of workers will be available to pay for a larger number of retirees.

4 Productivity and incomes

In this section, we present GDP and income projections developed using the Treasury's fiscal strategy model (2024a). As the fiscal strategy model only contains projections to 2038, we extended it forward to 2050 using:

- Population and labour force projections from Stats NZ (2022b; 2020; 2021b)
- NZ Super Fund projections from the Treasury's NZ Super Fund model (2024d)
- Student loan, accident compensation corporation (ACC), and government superannuation fund (GSF) projections from the Treasury's Long Term Fiscal Model (2021b).

Economic growth is driven by the size of the labour force, the level of capital accumulation, and the rate of productivity growth.

The size of the labour force depends on population growth (see section 2.1) and labour force participation (section 3). The level of capital accumulation depends on the rate of investment (not covered in this report).

Productivity refers to how efficiently inputs (like labour, capital, and raw materials) are converted into outputs (such as goods or services). The main factor driving productivity growth is the rate of global technological progress, which is largely outside of the

government's control. However, productivity growth also depends on how well New Zealand can keep up with the global frontier and how well innovation diffuses across the domestic economy, which many different government policies, such as education, research, and regulation, can influence.[6]

Economic growth results from population growth (see section 2.1) and productivity growth, but is moderated by decreasing labour force participation (section 3). For our economic growth scenarios, we use the population and labour force figures from the median Stats NZ projections but vary the rate of productivity growth.

The Treasury's Long Term Fiscal Model (2021b) assumes productivity growth of 1.0% based on historical labour productivity growth from the past 30 years (1993 to 2023). However, the Treasury notes that the world has been experiencing a productivity slowdown (Cook, Devine, and Janssen 2024). Using historical data from the past 20 years (2003 to 2023), New Zealand's average labour productivity growth rate is just 0.7%. On the other hand, there is a chance that technological progress will cause labour productivity growth to return to higher levels. For example, the OECD estimates that AI could cause annual US labour productivity growth to increase by 0.4 to 0.9 percentage points over the next ten years (2024).

Based on this discussion, we define three growth scenarios:

- **High growth** – labour productivity growth of 1.3%
- **Medium growth** – labour productivity growth of 1.0%
- **Low growth** – labour productivity growth of 0.7%.

4.1 The economy could be more than 1.5 times as large

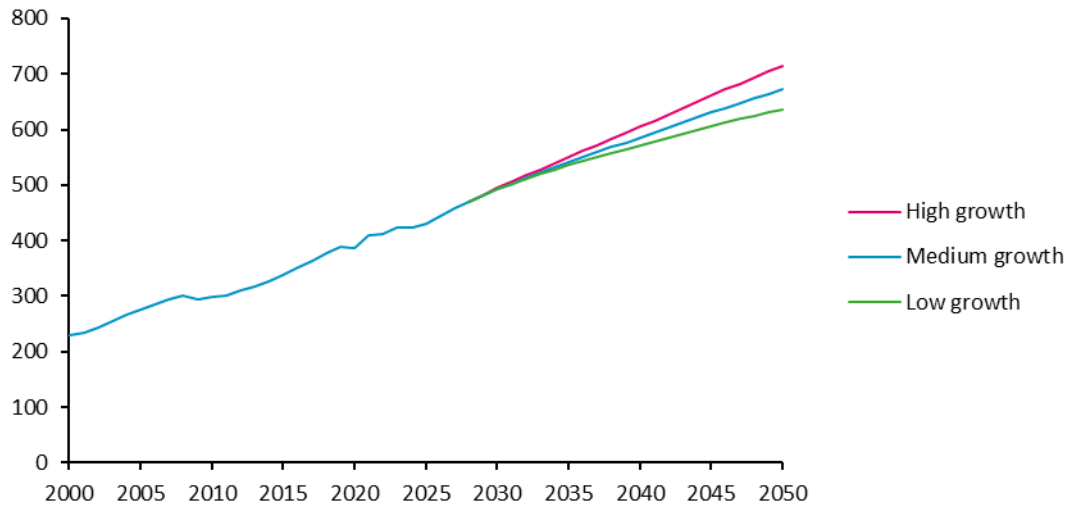
Figure 18 shows projected real GDP growth under each of the three scenarios. Under the medium growth scenario, GDP will increase by 56% between 2025 and 2050 after adjusting for inflation, rising from $431 billion to $672 billion. Under the high growth scenario, it will increase by 66%, rising to $715 billion. Under the low growth scenario, it will increase by 48%, rising to $637 billion.

A portion of this increase in projected GDP is due to population growth. Under the medium scenario, real GDP per capita will rise by 32% from $80,000 to $105,000. Under the high growth scenario, it will increase by 40% to $112,000, and under the low growth scenario, it will rise by 25% to $99,000.

[6] Conway (2018) discusses the drivers of productivity growth in New Zealand and suggests policy improvements. André and Gal (2024) provide a more general overview of public policies that can raise productivity growth.

Figure 18 Real GDP, 2000 to 2050

$ billion, June 2025 prices



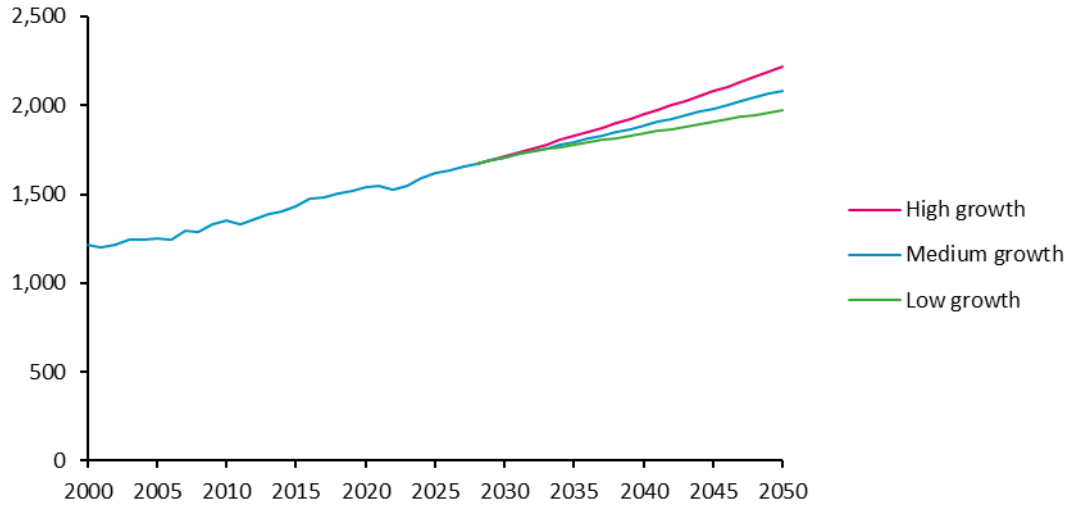
Source: NZIER extension of Treasury's Fiscal Strategy Model (2024b)

4.2 Incomes could be one-third higher

Productivity growth will allow workers to produce more or better goods and services in the same amount of time, making their work more valuable to companies and enabling them to earn higher wages. As shown in Figure 19, average gross weekly earnings are projected to rise from $1,619 per person in 2025 to $2,084 in 2050 in the medium scenario after adjusting for inflation – an increase of a third. This compares to $2,217 in the high growth scenario and $1,975 in the low growth scenario.

Figure 19 Average gross weekly earnings, 2000 to 2050

Average ordinary time weekly earnings net of tax & ACC Earner levy, June 2025 prices



Source: NZIER extension of Treasury's Fiscal Strategy Model (2024b)

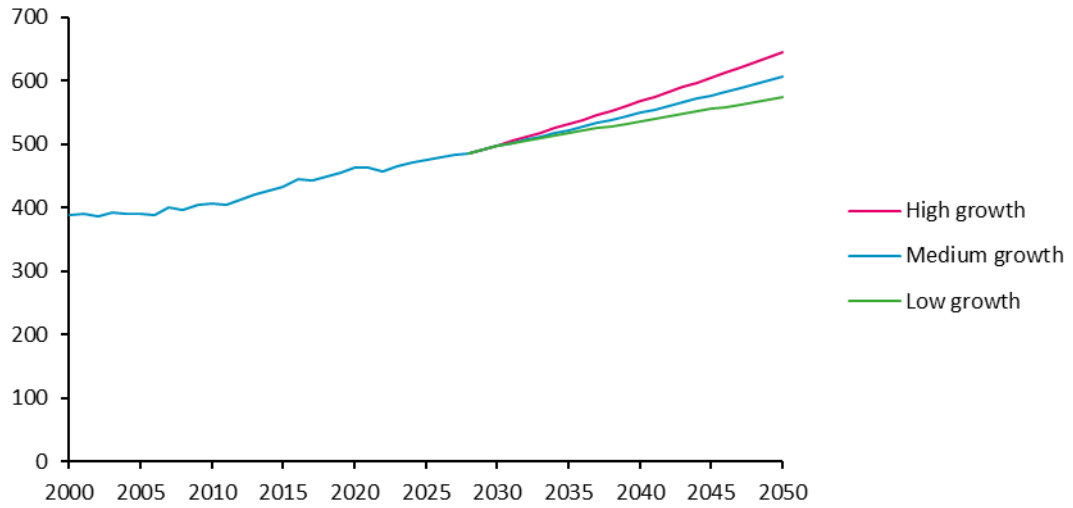
4.3 NZ Super rates will rise in line with incomes

NZ Super rates are indexed to the consumers price index (CPI) and are adjusted so that the couple rate remains between 66.0% and 72.5% of the net average wage. Assuming indexation does not change, NZ Super rates will continue to rise in line with wages. As shown in Figure 20, the net per-person weekly couple rate is projected to rise from $476 in 2025 to $607 in 2050, ranging from $646 under the low growth scenario to $575 under the high growth scenario.

While NZ Super will be more generous in the future, the living standards of retirees will still depend on their level of private savings and expenses. Evidence suggests that for many retirees, costs exceed NZ Super payments, making it necessary to rely on additional income sources or savings (Matthews 2023). Some commentators, such as the Financial Services Council (2019), argue that there is a gap between NZ Super payments and the amount needed for a comfortable lifestyle. This gap is likely to persist in 2050, as perceptions of a comfortable lifestyle tend to rise with average wages.

Figure 20 NZ Super net weekly couple rate (per person), 2000 to 2050

$, June 2025 prices



Source: NZIER extension of Treasury's Fiscal Strategy Model (2024b)

4.4 Summary: productivity growth will raise living standards for retirees

This section shows that despite declining labour force participation, the economy will continue to grow. Technological progress will drive higher incomes for working-aged people, causing NZ Super rates to rise by the same proportion. Retirees' living standards will rise in absolute but not relative terms, which could improve some measures of adequacy.

5 Savings and wealth

This section discusses potential changes in savings and wealth. It draws on a variety of studies and data points.

5.1 KiwiSaver will play a larger role in providing income in retirement

In 2050, people turning 65 will have had KiwiSaver for almost all their working lives. Those who have been in paid work for most of their working lives will have had time to accumulate much larger balances, making a greater contribution toward their retirement incomes. However, those who have not been in paid work for their full working lives (for example due to caring responsibilities, ill health or disability) will have relatively lower balances, resulting in growing inequalities in retirement incomes.

Estimates produced by Melville Jessup Weaver (MJW) in 2019 indicate that KiwiSaver balances will grow to between $670 billion and $1,240 billion in 2050 in nominal terms (Financial Services Council 2019). In today's dollars, this amounts to between $460 billion and $840 billion. These projections were produced several years ago and may not reflect changes in market conditions. A recent Simplicity Research Hub projection suggests a higher figure of $1,100 billion (Shamubeel Eaqub, private communication).

In March 2024, the average KiwiSaver account balance was $33,500 (Melville Jessup Weaver 2024b). Assuming there are 4.9 million KiwiSaver accounts in 2050,[7] the MJW and Simplicity projections indicate that the average person's balance will reach somewhere around $90,000 to $230,000 in 2050 – suggesting an increase of three to seven times.[8]

People approaching retirement tend to have higher KiwiSaver balances because they have had more time for their balances to accumulate. The Retirement Income Group of the New Zealand Society of Actuaries (2022) has estimated that contributing KiwiSaver members aged 45 in 2021 (who will turn 65 in 2040 or 2041) will have a median balance of $156,900 in 2021 dollars, or $188,800 in 2025 dollars. Balances will continue to increase through to 2050 as KiwiSaver matures.

As KiwiSaver grows, it will play a more important role in providing income in retirement. Someone retiring with $200,000 in 2050 who follows the '4% Rule'[9] would gain an income of $8,000 a year, or $154 a week. Compared to the projected $525 net per person weekly NZ Super couple rate, this would increase their income by around a third. Under current policy settings, KiwiSaver balances will provide a helpful supplement to NZ Super income, but NZ Super Income will remain the main source of income for most retirees.

KiwiSaver will also gain importance in New Zealand's financial services sector and the wider economy. MJW's projected total balances of between $410 billion and $760 billion in 2050 equates to 60% to 100% of GDP.[10] This is likely to result in a larger range of financial products being available, including new decumulation options.

These projections assume that KiwiSaver's current policy settings for KiwiSaver will continue. Policies to increase participation, raise contribution rates, or increase returns would result in higher balances and higher incomes. Potential policies include:

[7] This figure is based on the number of people aged 20 and over in 2050 under Stats NZ's median projection, as most people aged under 20 do not have KiwiSaver accounts.

[8] Due to a lack of data, it is not possible to say how balances may vary across different gender, ethnic, or other groups.

[9] Under the 4% rule, each year a retiree takes 4% of the starting value of their retirement savings (adjusted for inflation). In 2020, this rule was estimated to provide a stable real income up to age 89 with 95% probability and age 94 with 50% probability. See the Retirement Income Interest Group of the New Zealand Society of Actuaries (2020).

[10] Based on The Treasury's nominal GDP projection of $1,100 billion (2024b).

- Raising the minimum or default contribution rate[11]
- Enabling people to set their contributions to increase over time
- Increasing incentives to contribute (such as by raising the government contribution)
- Encouraging self-employed people to contribute
- Removing first-home withdrawals
- Encouraging people to invest in more aggressive funds.

5.2 It is unclear if household or national savings will increase

It is difficult to make projections about how savings may change over the next 25 years. As Figure 21 shows, national savings fluctuate significantly depending on economic conditions but tend to average around 5% of GDP.

National savings is the aggregate of individual choices made by firms, households and governments. Household savings tend to increase when government savings decrease, and vice versa. This could be due to Ricardian equivalence – an economic theory that states that the government's spending decisions do not affect the overall level of national savings. If the government increases spending, households will increase private savings, anticipating future tax rises to pay off government debt.

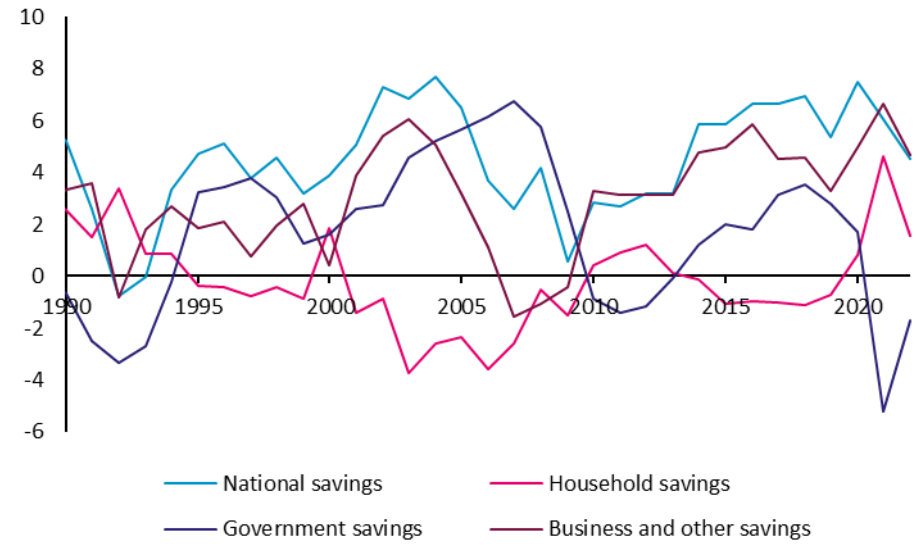
It is unclear whether higher KiwiSaver balances will translate into higher household and national savings. Standard economic theories predict that most households will offset an increase in retirement savings balances by reducing other forms of savings or increasing borrowing (this is known as the substitution effect). However, financially constrained households may not be able to offset savings, and behavioural biases or nudges may influence households' decisions.

There is little empirical evidence on how KiwiSaver has impacted household and national savings in the past. One study – using data from the first three years of KiwiSaver – found that KiwiSaver has a small positive effect on household savings and a marginal or even negative effect on net national savings (Law, Meehan, and Scobie 2017). However, this study is quite old, and KiwiSaver has changed significantly. More research is needed before any reasonable predictions can be made about the future.

[11] The Commission (2024a) has recommended increasing the default rate to 4% for both employee and employer contributions. This is based on MJW (2024c) modelling indicating that rates of 4% are likely to provide adequate incomes for most earners.

Figure 21 National savings by type, 1990 to 2023

% of GDP



Source: RBNZ (2024)

5.3 The global consensus is toward low interest rates

Investment returns affect how fast KiwiSaver and other forms of savings accumulate. Investment returns in New Zealand are tied to global interest rates, which in turn are determined by the global supply of savings and demand for investment.

The supply and demand for savings will be affected by global population ageing. According to UN projections, the proportion of the global population aged 65 and over rose from 6.8% in 2000 to 10.4% in 2025 and is expected to continue climbing to 16.3% by 2050 (UN Department of Economic and Social Affairs 2024). Population ageing affects investment returns in three main ways (Carvalho, Ferrero, and Nechio 2016):

- As more people enter retirement, the size of the workforce falls, raising the level of capital per worker and lowering interest rates.
- As people live longer, they save more, raising the supply of savings and lowering interest rates.
- People in retirement draw down their savings, reducing the supply of capital and raising interest rates.

Because these channels work in different directions, it is difficult to determine the overall impact. Interest rates are also influenced by a range of other factors, such as inequality and productivity growth. A recent Treasury report analyses these factors and concludes that the future trend is uncertain (van Rensburg 2023). While the global consensus is that interest rates will remain low in the future, some factors indicate rates may increase.

5.4 Home ownership plays an important role, but future trends are uncertain

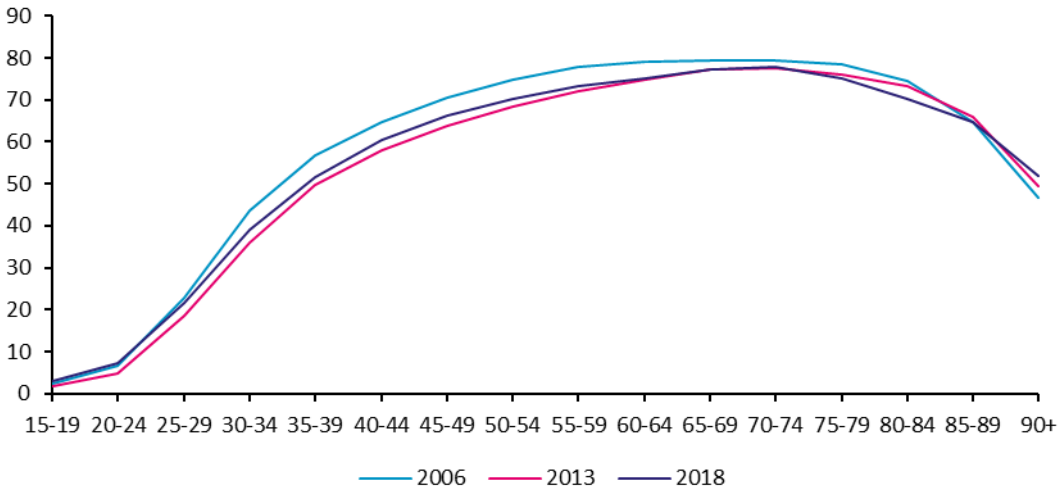
Housing is an important form of wealth for many New Zealanders. New Zealand's retirement income policy has historically been based on the so-called 'golden assumption' – that people own their own homes outright by the time they retire and don't have to spend

money on rent or mortgage repayments. Outright home ownership is important because NZ Super is the only form of income for many people – 40% of retirees rely on NZ Super, and 20% have only a little more (Te Ara Ahunga Ora Retirement Commission 2022) – and the level of NZ Super may not provide an adequate income on top of rent or mortgage costs.

Home ownership has fallen substantially since it reached its peak in the 1990s, but it appears to have stabilised in recent years. Over the past 25 years, the proportion of households that own their own homes fell from 67.9% in 2001 to a low of 64.8% in 2018 but rose to 66.0% in 2023 (Stats NZ 2024a). As shown in Figure 22, home ownership has fallen the most for middle-aged people, but it has also decreased among people aged 65 and over.

Figure 22 Individual home ownership by age group, 2006, 2013 and 2018

Percentage of people aged 15 years and over who own (or partly own) the dwelling they usually live in or hold it in a family trust.



Source: Stats NZ (2024a)

Treasury analysis shows that the 'golden assumption' has broken down, with more households with people over 65 paying a mortgage or renting (Symes 2022). Today, 66% of senior households own their home outright, with 14% paying a mortgage and 20% paying rent. Less than half of Māori seniors and about one-quarter of Pacific seniors own their homes outright. For seniors who pay rent or a mortgage, weekly housing costs are likely to exceed 40% of the NZ Super payment. NZIER analysis has also found that the number of outstanding mortgages in the 65 and over age group has increased significantly between 2018 and 2023 (NZIER 2024).

While some commentators have projected home ownership continuing to decline at historic rates, reaching 47.9% in 2048 (Deloitte 2024), the trend may be about to improve. Evidence shows that zoning reforms in Auckland since 2016 increased housing supply, reduced rent growth, and improved affordability relative to the rest of the country (Donovan and Maltman 2024). Since then, the government has introduced a range of changes to national zoning rules that make it easier to build new houses in all cities. These

changes could lead to better housing affordability and higher home ownership rates over the next 25 years.

A key question is whether people aged 40 today – who did not manage to buy their homes in their 20s and 30s – will manage to buy their homes and pay off their mortgages before they turn 65 in 2050. Even if housing policies improve future access to home ownership, there may be a 'lost generation' who missed out because they entered the market at the wrong time. This cohort may struggle to pay off mortgages before retirement or remain renters, leading to lower living standards for retirees in 2050. In the previous retirement income policy review, the Commission (2022) noted that people who rent in their late 30s tend to continue to be renters in retirement. Assuming this pattern continues, TAOO projected that the proportion of retirees paying rent could reach 40% by 2048.

Climate change is another important factor that will challenge the 'golden assumption' over the next 25 years. Historically, home ownership has been a key source of financial security for people in retirement. However, rising sea levels and the increasing frequency of extreme weather events, such as storms and floods, will expose homeowners to greater financial risk than in the past. One major concern is the growing difficulty of obtaining adequate insurance. A recent estimate suggests that 10,000 coastal properties in Auckland, Wellington, Christchurch and Dunedin may become uninsurable by 2050 as a result of coastal flooding (Mercier 2024). Without adequate insurance, homeowners will be left financially vulnerable and property values may decline.

5.5 Summary: the outlook for savings and wealth is uncertain

As this section shows, KiwiSaver will play a larger role in providing income for retirement, potentially improving many retirees' living standards while leading to growing inequalities. However, households may offset rises in KiwiSaver balances by reductions in other forms of private savings, making it difficult to draw firm conclusions about adequacy, equity or sustainability.

There is a high level of uncertainty around future home ownership trends, raising questions about the 'golden assumption' of retirees owning their homes outright – a crucial factor underpinning the adequacy of the retirement income system.

6 Economic inequality

In this section, we discuss how different measures of income and wealth inequality could evolve over the next 25 years. As we were unable to find any projections for future changes in economic inequality in New Zealand, this section focuses on presenting historical data from Stats NZ and the OECD.

6.1 The relative income poverty rate is flat

Income poverty can be measured in many ways. One common approach defines the poverty rate as the percentage of households that receive less than 50% of the median equivalised household disposable income. This measure of income poverty has remained constant since data began in 2006 for the general population, as shown in Figure 23.

It is important to recognise that this is a measure of *relative* poverty. While the poverty rate has remained constant, the living standards of those classified as being in poverty have improved over time as median incomes have risen.

The poverty rate appears to have increased among those aged 65 and over. However, this measure is susceptible to how NZ Super rates compare to the median wage (Perry 2019). Small changes to the NZ Super rates can lead to large changes in the poverty rate even when the living standards of older people remain relatively constant.

Figure 23 Income poverty rate by age group, 2006 to 2022

Percentage with equivalised household disposable income lower than 50% of the median

Source: OECD (2024b)

6.2 Income inequality is increasing among those over 65

Inequality can also be measured in different ways. One common and easy-to-understand measure compares the incomes of the top 10% to the incomes of the bottom 10%.

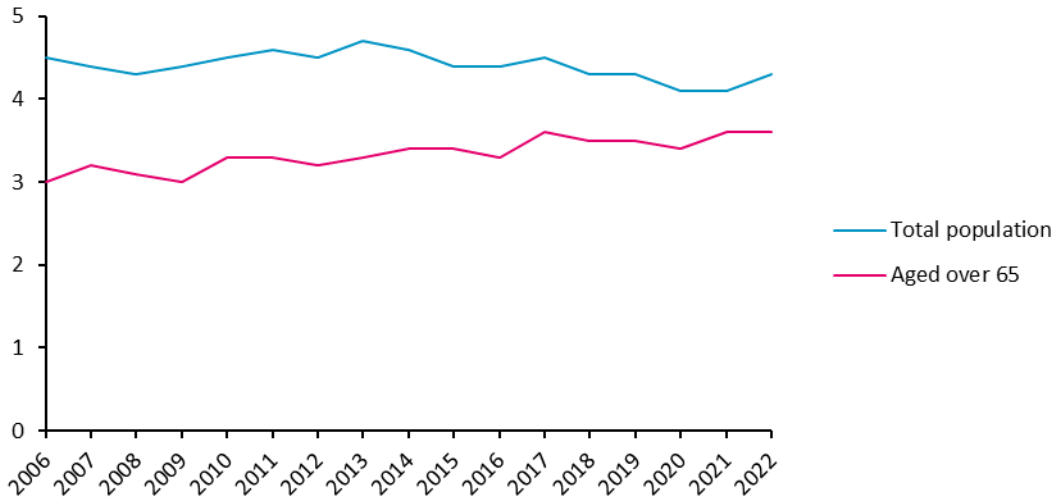
Because NZ Super provides a universal flat-rate income, it gives a higher proportional benefit to lower-income retirees. As a result, income inequality among those aged 65 and over is lower than the general population.

Since 2006, income inequality has decreased slightly for the general population but increased for those aged 65 and over, as shown in Figure 24. This is likely due to the increasing numbers of people continuing to work after they turn 65, driving up the incomes of those at the top end of the income distribution. If this trend continues, inequality among those aged over 65 could come to mirror the general population.

Treasury analysis (Cleveland and Stephens 2024) finds that accounting for housing costs results in much higher levels of income inequality for the general population, but after-housing cost inequality measures have decreased by a greater proportion since 2006 than before housing cost measures.

Figure 24 P90/P10 disposable income decile ratio, 2006 to 2022

Ratio of equivalised household disposable income at the 90th percentile to the 10th percentile



Source: OECD

6.3 The gender pay gap is trending downwards

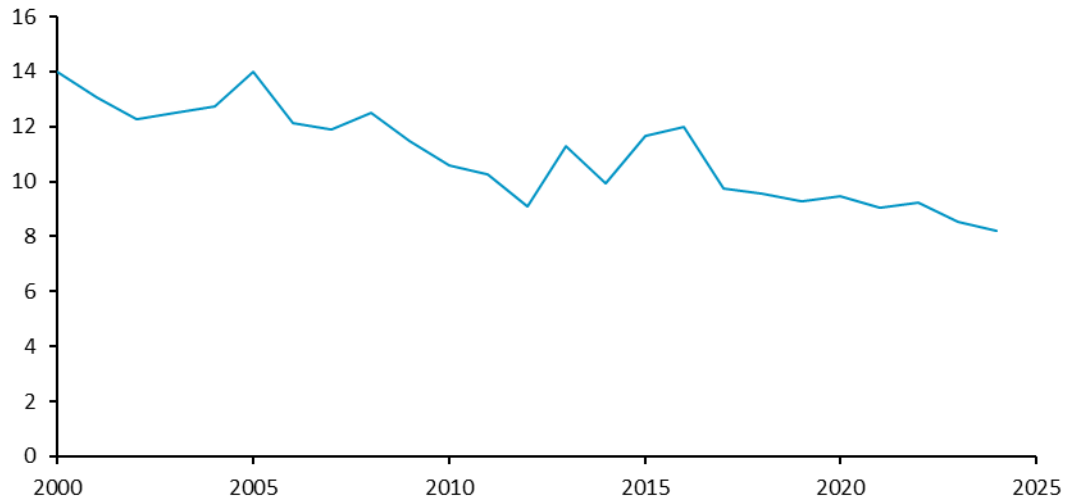
The gender pay gap is defined as the difference in men's and women's pay as a percentage of men's pay. According to Stats NZ median hourly wage and salary earnings data, the gender pay gap has declined steadily over the past 25 years, from 14.0% in 2000 to 8.2% in 2024 (see Figure 25).

Women have tended to earn less than men per hour because they are more likely to work in lower-paying industries and occupations. Women are overrepresented in these industries for a variety of reasons, including social factors and individual circumstances. Women also suffer from bias and discrimination (Sin, Stillman, and Fabling 2017). In addition, women are more likely to work part-time or take breaks in their careers to care for families, resulting in lower lifetime earnings.[12]

[12] As a result, women tend to accumulate smaller KiwiSaver balances. See section 6.5.

Figure 25 Gender gap in median hourly wage and salary earnings, 2000 to 2025

Difference in men's and women's median hourly wage and salary earnings as a percentage of men's earnings



Source: Stats NZ (2024d)

The gender pay gap has declined most quickly within the Māori and Pacific peoples ethnic groups, and pay gaps within these groups are now lower than the national average. The gender pay gap is declining more slowly for the Pākehā/European ethnic group and does not appear to be declining at all for the Asian and MELAA ethnic groups.

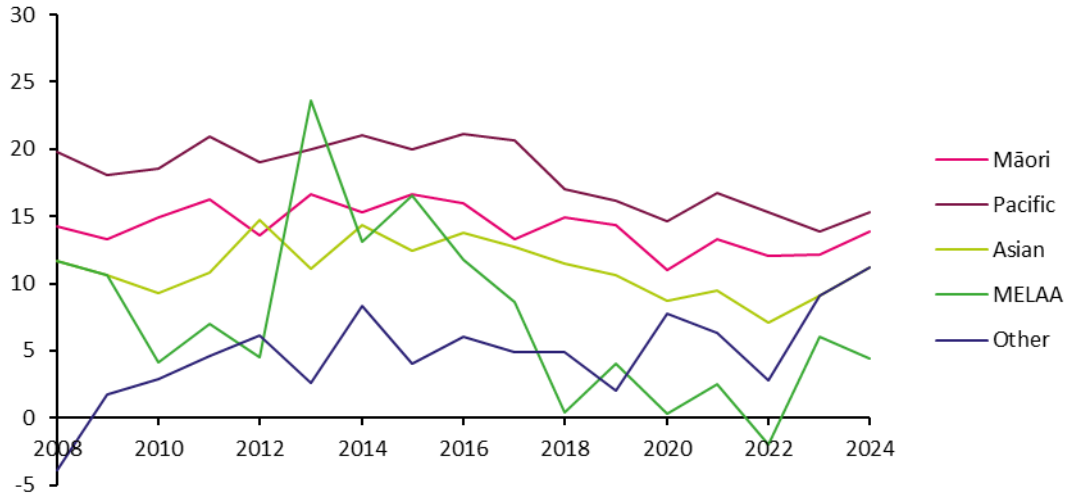
6.4 Ethnic pay gaps are also trending downwards

Following the approach used by the Ministry for Ethnic Communities (2024), this report measures ethnic pay gaps as the difference in hourly pay between Pākehā/Europeans and other ethnic groups as a percentage of Pākehā/European pay. Ethnic pay gaps have declined for most ethnic groups between 2008 and 2024, as shown in Figure 26 (data prior to 2008 is not available).

For Māori, the ethnic pay gap has fallen from 14.3% in 2008 to 13.8% in 2024. Similarly, for Pacific peoples, the ethnic pay gap has fallen from 19.7% in 2008 to 15.3% in 2024.

Figure 26 Ethnic gap in median hourly wage and salary earnings, 2008 to 2024

Percentage of median hourly wage and salary earnings for Pākeha/Europeans



Source: Stats NZ (2024d)

6.5 Pay gaps contribute to inequalities in KiwiSaver balances

On average, KiwiSaver balances are 25% higher for men than women due to differences in lifetime earnings (Melville Jessup Weaver 2024a). While women tend to contribute a similar proportion of their earnings to men, they tend to contribute less in absolute terms due to lower wages and time out of work (Kirkpatrick, Meehan, and Pacheco 2024).

There are also inequalities between different ethnic groups, with Pākehā/European employees currently contributing around 40% more to KiwiSaver each year than Māori and Pacific employees (Kirkpatrick, Meehan, and Pacheco 2024). Because KiwiSaver will account for a larger proportion of retirement income in 2050 than it does today, inequalities in KiwiSaver balances could lead to larger inequalities in retirement incomes. However, some ethnic groups may be more likely to gain income from other forms of retirement savings, such as iwi savings schemes, which help mitigate some of the disparities in KiwiSaver balances.

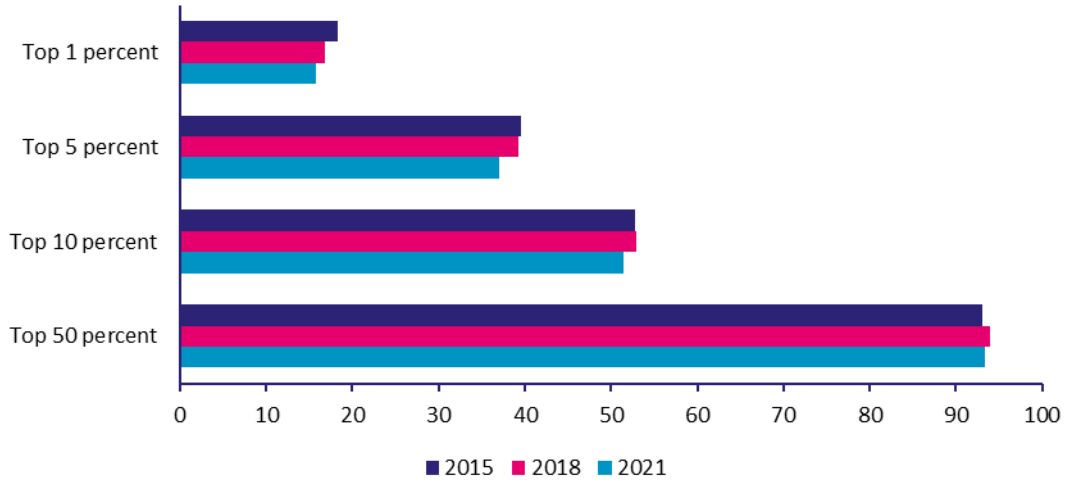
6.6 It is difficult to draw conclusions about overall wealth inequality

According to Stats NZ household net worth statistics (available only for the years ending June 2015, 2018 and 2021), the top 10% of New Zealand households hold around half of the total household wealth, as shown in Figure 27. Wealth inequality has not changed significantly over the past several years, and there is too little data available to make projections about how it will change between now and 2050.

Evidence suggest that New Zealand's labour income share (the proportion of national income going to wages and salaries) has declined over the past 25 years (Fraser 2018). If the labour income share continues to fall and returns to capital increase, then broadening capital ownership will be important for preventing widening wealth inequality.

Figure 27 Share of wealth held by percentile, 2015, 2018 and 2021

Percentage of total household net worth by selected wealth percentiles

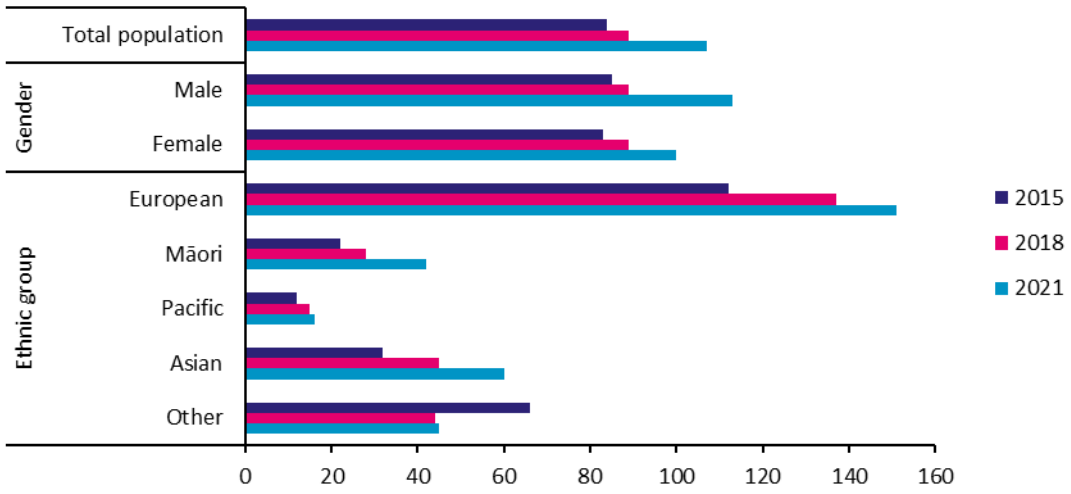


Source: Stats NZ (2024b)

Stats NZ data shows that people of Pākehā/European ethnicity generally have much higher wealth than Māori, Asian, or Pacific peoples, as shown in Figure 28. Again, there is too little data available to make projections about how wealth gaps might evolve over the next 25 years.

Figure 28 Wealth by gender and ethnicity, 2015, 2018 and 2021

Median individual net worth ($)



Source: Stats NZ (2024b)

Wealth has increased faster for older people than younger people over the past 25 years, driven by changes in the housing market and labour force participation (The Treasury 2021a). Much of this wealth will be transferred to younger generations over the next 25 years. The value of inheritances and other wealth transfers is likely to grow as the population ages.

Like all countries, New Zealand has imperfect intergenerational mobility, which means that children of high-income parents are likely to have high incomes themselves (Hughes 2022). Wealthy households tend to receive larger inheritances in absolute terms, but less wealthy households tend to receive higher inheritances as a percentage of their existing wealth. As a result, research by the Australian Productivity Commission (2021) found that inheritances tend to reduce relative wealth inequality.

6.7 Summary: inequalities are likely to persist

This section shows that if trends continue, the overall levels of poverty and income inequality could be similar to today. Income inequality may rise among those over 65 as people continue working for longer. While gender and ethnic pay gaps could shrink, persistent differences are likely to contribute to inequalities in KiwiSaver balances. Except for the fact that older people tend to be wealthier than younger people, it is hard to say much with confidence about wealth inequality.

7 Government finances

It is difficult to forecast government finances as these depend, to a large extent, on policy decisions and fiscal discipline. In this section, we present two projections developed by the Treasury:

- The 2024 fiscal strategy model (FSM), which demonstrates how the current Government intends to achieve its long-term fiscal objectives through to 2038.
- The 2021 long-term forecast model (LTFM), which presents the impacts of current and future governments acting in line with historic trends through to 2061.

These two projections use different data, methodologies and assumptions, resulting in very different pictures of the future of government spending. It is important to understand each model's strengths and limitations.

The FSM uses observed data up to 2024. It holds most types of expenditure fixed at current levels but allows overall expenditure to increase in line with the current Government's objectives. The difference results in an operating allowance for additional expenditure, which rises over time and can be distributed across different areas of spending as needed.

The main limitation of the FSM is that it does not account for the underlying drivers of government expenditure and assumes that the operating allowance will be sufficient to address rises in costs. In reality, the government may find it difficult to achieve its objectives as pressures rise.

The LTFM uses observed data up to 2021. As New Zealand's economy has grown much slower than expected, LTFM projections for 2021 to 2024 differ significantly from the actual data included in the FSM. The LTFM does not provide a reliable projection for the near term and is best used for 2030 onwards.

The main limitation of the LTFM is that it assumes that when expenditure rises faster than revenue, the government will always respond by increasing borrowing. In reality, the government may look for ways to control spending, causing debt to rise more slowly than the LTFM suggests.

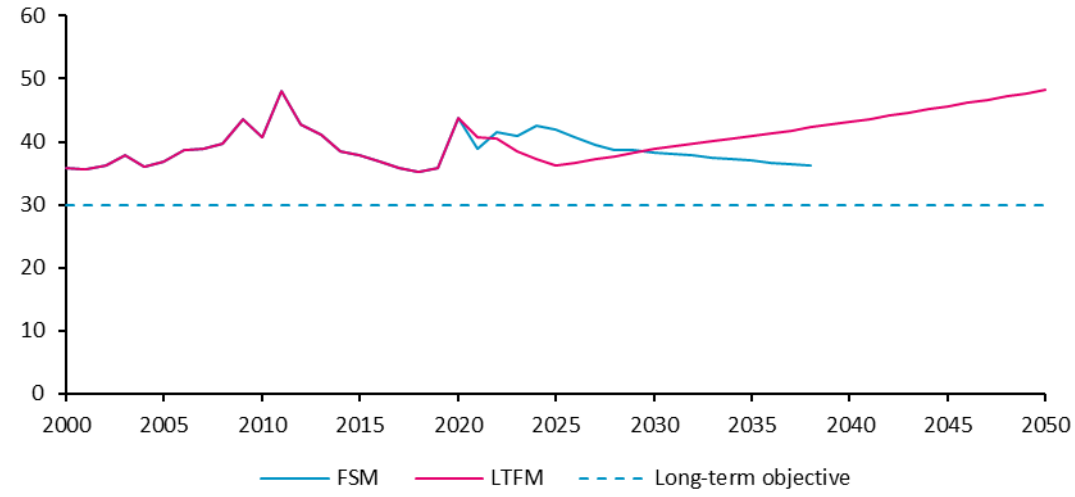
For NZ Super Fund data, we present projections from the Budget Economic and Fiscal Update 2024 (BEFU) version of the NZ Super Fund Contribution Rate Model (The Treasury 2024d), which is consistent with the 2024 FSM.

7.1 Government spending could account for a higher share of GDP

The current Government aims to reduce core Crown expenses towards 30% of GDP in the long term (The Treasury 2024c). This is reflected in the FSM projections, which show total Crown expenses declining from 42% today to 36% in 2038.

However, the LTFM shows that if current policy settings are held constant, government spending is set to rise significantly. Assuming the government does not act, total Crown expenses could reach 48% of GDP by 2050.

Figure 29 Total Crown expenses before gains and losses, 2000 to 2050



Source: The Treasury (2024b; 2021b)

7.2 More spending will go toward health and NZ Super

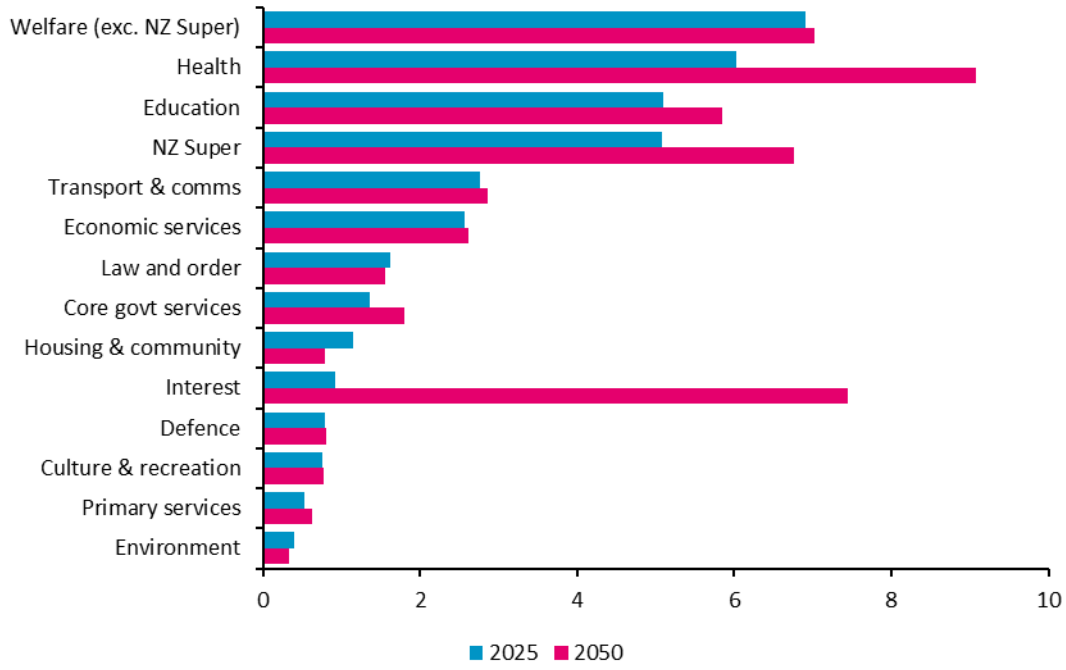
Because the FSM holds most types of spending fixed at current levels, it does not provide a useful picture of how different types of expenditure will change over time.

According to the LTFM, health spending will increase by 51% between 2025 and 2050 (from 6.0% of GDP in 2025 to 9.1% in 2050), as shown in Figure 30. NZ Super spending will rise by 33% (from 5.1% to 6.8% of GDP), and education spending will increase by 15% (from 5.1% to 5.8% in 2050).[13] The government will also spend much more on interest to service its growing debt (discussed below). Most other areas of government spending will remain constant.

[13] The increase in the net cost of NZ Super, which accounts for the tax paid on income from NZ Super, is much smaller (see section 7.7).

Figure 30 Total Crown expenses by type, 2025 and 2050 (LTFM)

% of GDP



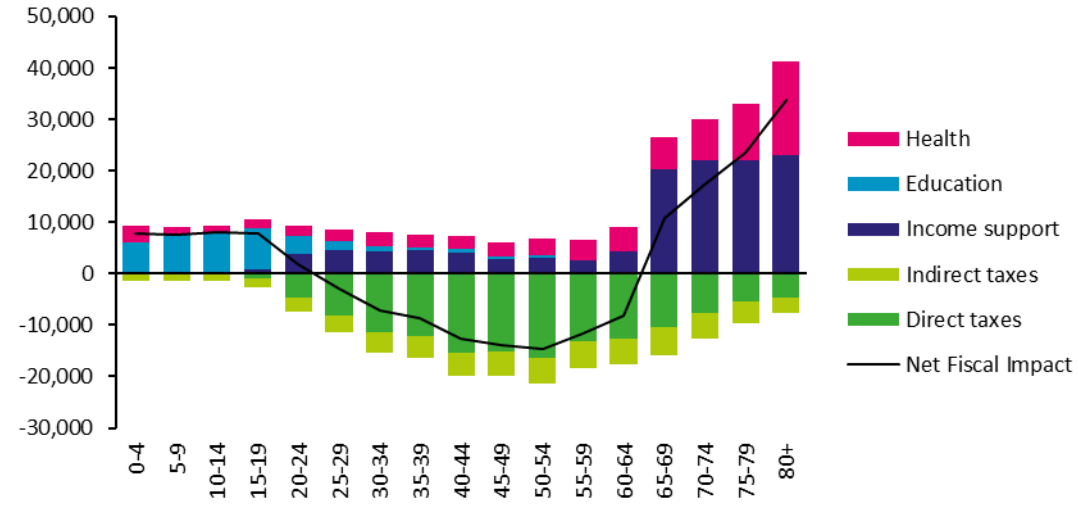
Source: The Treasury (2021b)

The ageing population is a major factor driving changes in expenditure. An increasing proportion of people aged 65 leads to higher NZ Super spending. It also leads to rising spending on health and residential care as older people tend to have higher health needs. If home ownership declines among those aged 65 and over, this could lead to more people requiring accommodation support.

Treasury analysis (Wright and Nguyen 2024) shows that the average net fiscal impact is negative for individuals aged 25 to 64, which means that they tend to be net payers of tax (see Figure 31). People over 64 have a positive average net fiscal impact, indicating that they tend to be net recipients of government spending. This is likely to be typical of most advanced economies.

Figure 31 Net fiscal impact by component and age group

Average benefit or tax in the 2018/29 tax year, 2019 dollars



Source: Wright and Nguyen (2024)

Another important factor driving changes in expenditure is rising costs in service sectors, such as health and education. This can be explained by the Baumol effect – higher productivity growth in goods-producing sectors leads to price increases in labour intensive service sectors (Helland and Tabarrok 2019).

7.3 The deficit could grow significantly

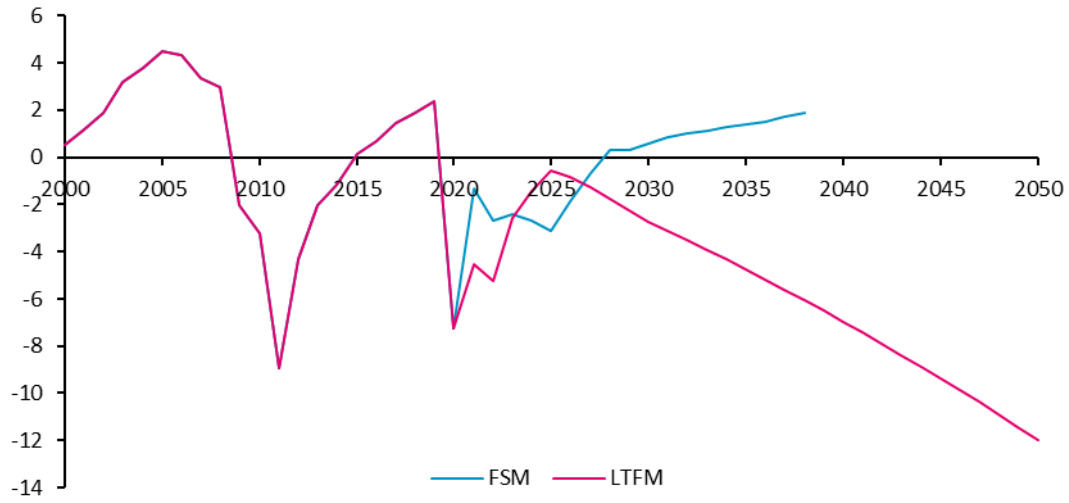
The government's operating balance – the difference between revenue and expenses – is an indicator of financial performance. A positive operating balance means the government is running a surplus, and a negative operating balance means it is running a deficit.

The current Government aims to return the operating balance to surplus by 2028 and maintain sufficient surpluses in the long term to bring down debt (The Treasury 2024c). This is reflected in the FSM projections, which show the government running a surplus by 2030.

The LTFM shows that under current policy settings, rising expenditure will cause the deficit to grow over time from around 2% of GDP today to around 12% by 2050.

Figure 32 Total Crown operating balance (before gains and losses), 2000 to 2050

% of GDP



Source: The Treasury (2024b; 2021b)

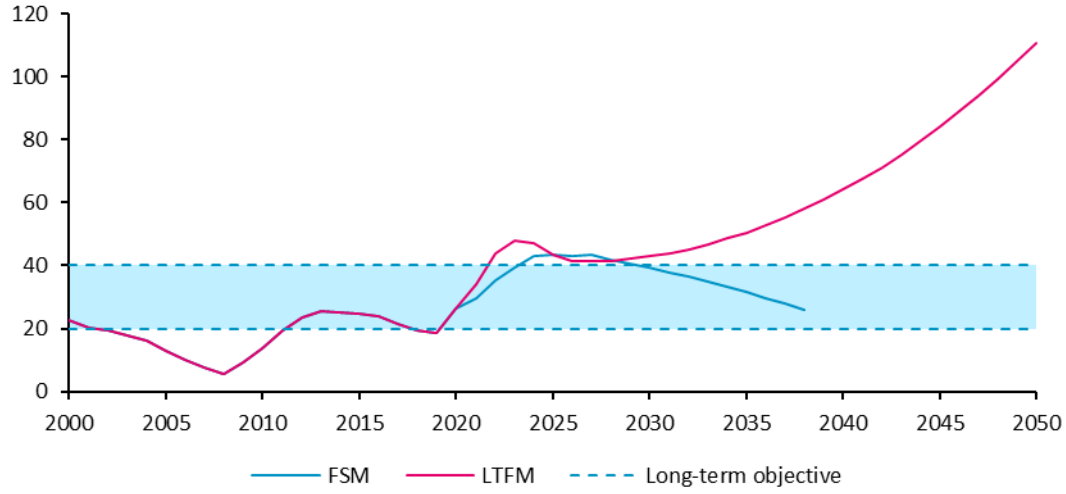
7.4 Government debt could exceed 100% of GDP

The current Government intends to reduce net core Crown debt towards 40% of GDP in the short term and has set an objective of maintaining debt between 20% and 40% of GDP in the long term. The FSM projections show net core Crown debt falling below 40% by 2030.

The LTFM, on the other hand, projects that debt will rise exponentially due to the structural deficit and compounding interest. The model assumes that as spending rises, the government will respond by borrowing more. Rising debt raises interest costs, causing debt to rise even faster. By 2050, core Crown debt will reach 111% of GDP – a level not seen since World War II. Economic shocks and natural disasters – which are not covered by the LTFM – could cause debt to rise even higher (The Treasury 2021a).

Figure 33 Net core Crown debt excluding NZ Super Fund and advances, 2000 to 2050

% of GDP



Source: The Treasury (2024b; 2021b)

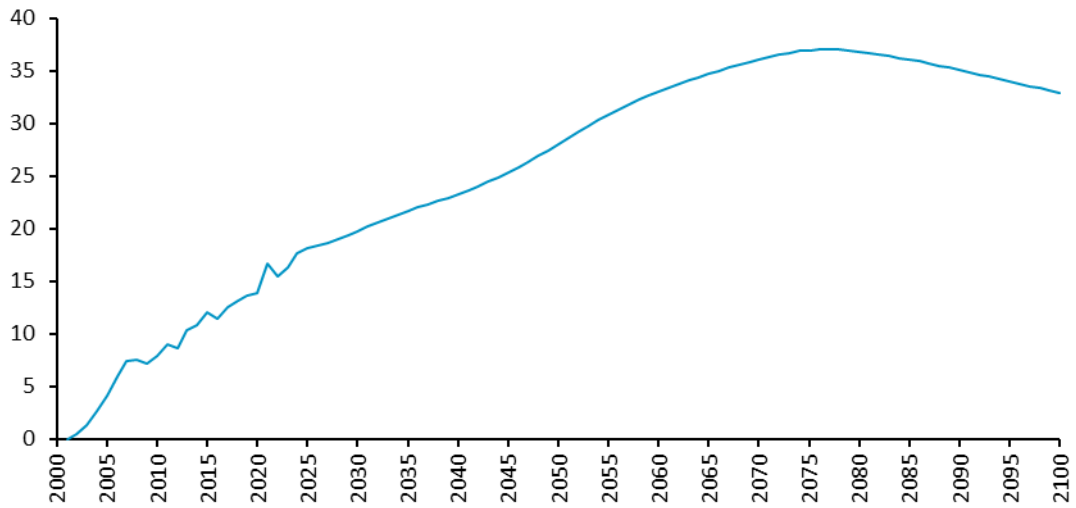
7.5 NZ Super Fund balances will be substantially higher

The NZ Super Fund was created in 2001 to smooth the rising costs of NZ Super over the 21st century, giving the government time to adjust its finances (McCulloch and Frances 2003). The balance of the NZ Super Fund was $77 billion as at 30 June 2024 (Guardians of New Zealand Superannuation 2024).

The government made capital contributions to the NZ Super Fund between the years 2001/02 and 2009/10 and from 2017/18 onwards. Due to these contributions and the returns earned by the Fund, the balance of the NZ Super Fund has risen to around 18% of GDP and is expected to reach 28% of GDP by 2050.

Figure 34 NZ Super Fund balance, 2000 to 2100

% of GDP



Source: The Treasury (2024d)

7.6 Despite this, withdrawals will be modest

NZ Super Fund contributions or withdrawals are determined by a formula set out in the *New Zealand Superannuation and Retirement Act 2001* (The Treasury 2022). Under this formula, the government calculates a 'contribution rate,' defined as net (after-tax) NZ Super expenditure after capital contributions or withdrawals relative to GDP. The contribution rate is calculated so that, if held constant over 40 years, it would fully cover the costs of NZ Super but deplete the Fund by the end of that period.

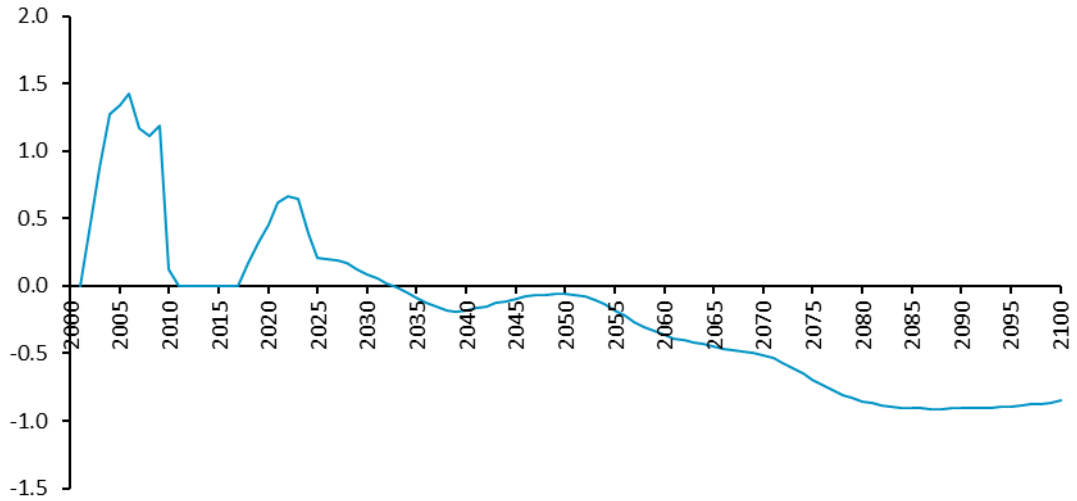
In practice, the contribution rate tends to rise over time. The formula is recalculated annually, and each recalculation looks ahead to a fresh 40-year period. Because successive 40-year periods project higher NZ Super costs, it results in a higher contribution rate.

Capital withdrawals from the Fund are expected to begin in the early 2030s but remain low for the first half of the 21st century. In 2050, capital withdrawals will be less than 0.1% of GDP, as shown in Figure 35. The reason for low withdrawals in 2050 is that the Fund must maintain a high balance to cover ongoing increases in NZ Super expenditure over the second half of the 21st century.

Capital withdrawals are expected to rise rapidly from 2050 onwards, eventually peaking at about 0.9% of GDP in the 2080s.

Figure 35 NZ Super Fund contribution or withdrawal, 2000 to 2050

% of GDP



Source: The Treasury (2024d)

7.7 NZ Super Fund could pre-fund a third of the increase in NZ Super

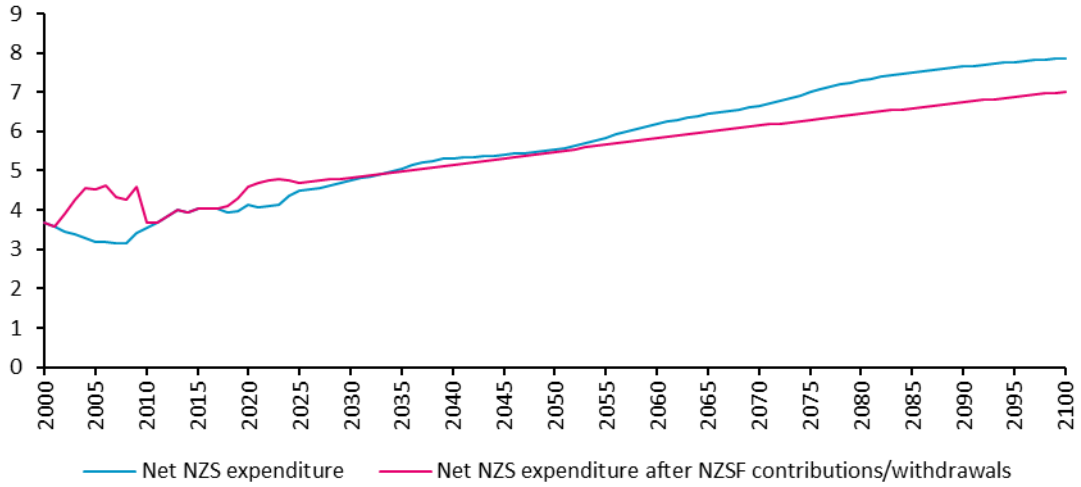
Net (after-tax) NZ Super expenditure relative to GDP will rise by 24% between 2025 and 2050 (from 4.5% in 2025 to 5.6%), as shown in Figure 36.[14] After accounting for NZ Super Fund contributions and withdrawals, the increase is 17% (from 4.7% in 2025 to 5.5% in 2050).

In 2050, Fund withdrawals will cover just 6% of the rise in net NZ Super expenditure relative to GDP. When withdrawals relative to GDP peak in the 2080s, they will cover around 30% of the increase. In other words, the NZ Super Fund is expected to pre-fund up to a third of the increase in annual NZ Super expenditure.

[14] These figures, which are from the BEFU 2024 version of the NZ Super Fund Contribution Rate Model, differ from LTFM figures on NZ Super expenditure presented in section 7.2 for two reasons: they are based on more recent data, and they are net (after tax) rather than gross (before tax) figures.

Figure 36 Net NZ Super expenditure before and after NZ Super Fund contributions and withdrawals, 2000 to 2100

% of GDP



Source: The Treasury (2024d)

The NZ Super Fund has historically achieved impressively high returns. Since it was established, it has earned an annual return of 10% per annum before tax and outperformed its passive benchmark by 1.5% per year (Guardians of New Zealand Superannuation 2024). By comparison, Treasury modelling assumes that the NZ Super Fund will achieve a return of 7.8%, gradually reducing to 6.8% between 2044 and 2082.[15]

If the Fund continues to earn a return of 10% per annum, outperforming Treasury expectations, the government will be able to make larger withdrawals. In this scenario, capital withdrawals will cover 48% of the increase in net NZ Super expenditure by 2050. As a result, net NZ Super expenditure after contributions and withdrawals will rise to just 5.0% in 2050. When withdrawals relative to GDP peak in the 2080s, they will cover around 55% of the increase.

It is important to note that the cost of NZ Super relative to GDP is now projected to rise more slowly and to a lower peak than was expected when the NZ Super Fund was introduced. Initially, NZ Super was expected to cost 9.0% of GDP in 2050 (The Treasury 2000), compared to 5.6% under current projections. The main reason for this change is the higher projected labour force participation among women and older people, which raises the level of GDP, reducing NZ Super relative to GDP (Bell 2021).

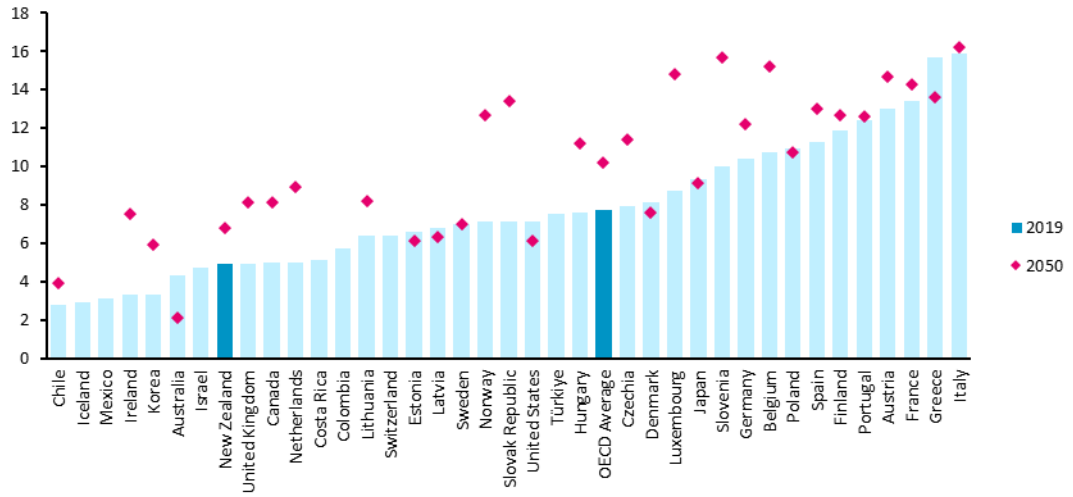
7.8 Public pension spending is likely to remain below most OECD countries

New Zealand currently spends less on public pensions than most other OECD countries, as shown in Figure 36. Although the OECD expects the cost of NZ Super to be 6.8% of GDP in 2050, it will remain below the OECD average.

[15] As Bell (2021) notes, while the projected return rates are probably conservative, it is better to plan for low rates and reduce contributions or raise withdrawals if rates turn out higher than expected, than vice versa.

Figure 37 Public expenditure on pensions for OECD countries, 2019 and 2050

% of GDP



Note: The historical data for 2019 and the projections for 2050 cover different programmes and use different definitions, resulting in large differences for some countries.

Source: OECD (2023)

7.9 Summary: rising health and pension costs will require tough choices

This section shows that rising health spending is likely to put increasing pressure on government finances. In addition, the number of retirees will lead to a large increase in government spending on NZ Super, even after accounting for NZ Super Fund contributions and withdrawals.

The increase in spending on NZ Super will require difficult policy trade-offs, particularly as health costs will also rise. Under current policy settings, it is likely to lead to a combination of rising taxes, reduced spending on other public services, and rising public debt. However, spending on NZ Super is not likely to reach levels seen in some other OECD countries.

The projections in this section do not account for uncertainty in demographic and economic growth projections. Increased migration or productivity growth would cause GDP to grow faster, reducing growth in debt-to-GDP and creating more headroom for the retirement income system.

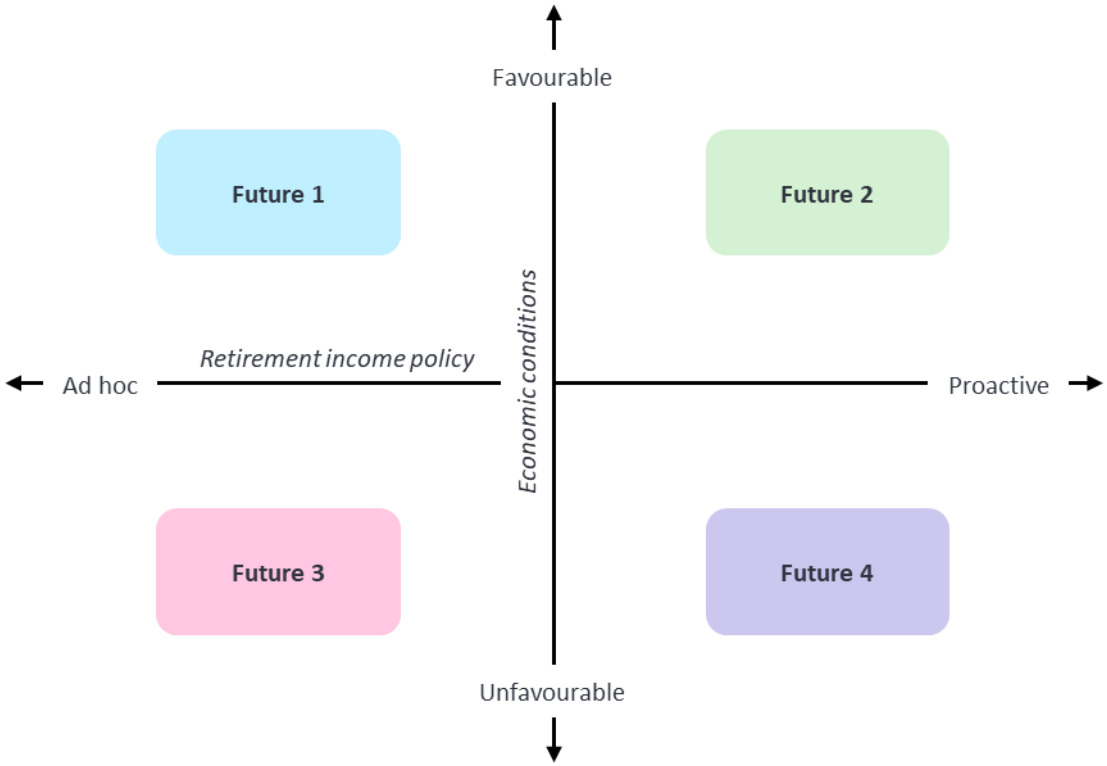
8 Implications for retirement income policy

The projections presented in this paper show that New Zealand's retirement income system will become much less affordable over the next 25 years. The proportion of people over 65 will grow, raising the costs of NZ Super for the government. At the same time, the proportion of people in the labour force will decline, meaning a smaller share of workers will be available to fund those costs. Rising health spending will also place a heavier burden on government finances. This section explores how retirement income policy may adapt in response to these trends.

Throughout this paper, we have highlighted the significant uncertainties regarding the future of the retirement income system. Instead of relying on a single projection, we outline four stylised possible futures. Each possible future is based on a different combination of assumptions about economic conditions and government policy. The futures are defined using two axes, as shown in Figure 38:

- The vertical axis reflects economic conditions. Toward the top, conditions are favourable. High migration raises the size of the workforce, and productivity growth causes incomes to rise more quickly. Toward the bottom, conditions are unfavourable. Low migration contributes to a relatively smaller workforce, and productivity growth stagnates.
- The horizontal axis reflects the government's response to the ageing population. Toward the left, the government is ad hoc, consisting of short-term decisions that respond to immediate pressures. Toward the right, the government is proactive, changing the retirement income system to address long-run trends.

Figure 38 Possible futures for the retirement income system



Source: NZIER

8.1 Economic conditions affect the resources available to fund the system

Favourable economic conditions reduce the costs of both the ad-hoc and proactive approaches. High migration raises the size of the labour force, and higher productivity increases the growth in incomes. These factors would cause the government's tax revenue to grow faster, making it easier to meet rising NZ Super costs or to transition to a more savings-based system. **Unfavourable economic conditions** have the opposite effect.

8.1.1 Certainties and uncertainties

There are some aspects of the future economic conditions that we can be fairly confident about. The population will be older and more diverse, with a growing share of older people and a declining share of younger people. People will be living longer and staying longer in the labour force. Technological advances will continue to create opportunities for economic growth. People will have much higher KiwiSaver balances. A larger share of government spending will go towards health.

Other aspects are more uncertain. Will migration continue to drive population growth despite the decline in birth rates? How long will people choose to keep working after they turn 65? Will the New Zealand economy be able to adopt new technologies and grow at a similar rate to other advanced economies? Will house prices fall, and will this lead to rising home ownership rates? Will gender and ethnic pay gaps continue to decline, and how will this affect wealth inequalities? What economic shocks does the future hold and how will they affect government finances?

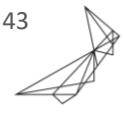
8.1.2 The impact of government policies

Economic conditions can be influenced by government policy settings outside of the retirement income system. For example, the government could:

- **Support higher birth rates.** Some countries have considered introducing policies to support people to have more children, such as family tax incentives or improved access to education and childcare. However, international experience shows that when it comes to family planning decisions, cultural norms and economic conditions are often more important than policy settings (Sobotka, Matysiak, and Zuzanna Brzozowska 2019). In addition, children born today will be just 25 years old in 2050, so higher birth rates will not contribute to a larger working-age population until the second half of the century.
- **Increase migration.** Higher migration increases the working-age population, resulting in more tax revenue to fund retirees. To offset the declining birth rate, migration levels would need to rise progressively. However, New Zealand already has a high level of migration compared to most other countries,[16] and it may become more difficult to attract migrants as the global population ageing accelerates.

  While migration expands the working-age population in the short term, it also adds to the number of retirees in the long term. Because migrants spend less of their working lives in New Zealand, they are arguably less likely to have a positive impact on public finances. While research using a static approach has shown that migration currently has a positive net fiscal impact (Slack, Wu, and Nana 2007), a life-cycle approach would give a better indication of long-term effects as migrants age (Carey 2019). To maximise the economic benefits of migration, the government will need to focus on attracting and selecting younger and more highly skilled migrants who are more likely to have a positive net fiscal impact.
- **Promote productivity growth.** The government could attempt to raise the rate of productivity growth through economic reforms. Labour productivity in New Zealand is lower than in many other advanced economies (Cook, Devine, and Janssen 2024),

[16] According to Stats NZ (2024e), New Zealand's international net migration rate was 21 per 1,000 in 2023, compared to 20 in Australia, 11 in the UK, and 3 in the US.



indicating that some improvement may be possible. Because NZ Super is tied to wages, productivity growth would also result in higher NZ Super payments. The link between NZ Super and wages would need to be broken for productivity growth to reduce the cost of NZ Super as a percentage of GDP. On the other hand, productivity growth would make New Zealand more prosperous, making it easier to bear the costs of the retirement income system. There is a feedback loop between retirement income policy and productivity growth, which is discussed in section 8.3.

8.2 Future governments face choices about how to respond

Broadly speaking, future governments must choose between **an ad hoc approach** – making short-term decisions that respond to immediate pressures – or **a proactive approach** – changing the retirement income system so that it is less vulnerable to demographic and fiscal headwinds.

8.2.1 An ad-hoc approach means raising tax revenue, reducing spending, or accumulating debt

An ad-hoc approach involves delaying necessary changes or making poorly planned reforms that do not address the pressures it is facing, leaving future governments with three choices:

- **Raise tax revenue.** Tax revenue could be raised to cover the rising costs of NZ Super and make up for declining labour force participation. To provide a rough indication, tax revenue in 2050 would have to increase by around 3% to cover the projected rise in NZ Super, and the tax borne by each worker would have to increase by around 4% to make up for the projected fall in labour force participation.[17] Further increases would be needed to meet rising health costs. Together, these tax increases would significantly reduce take-home incomes and living standards for the working-age population. Higher taxes could also reduce incentives to work, save and invest.
- **Reduce spending.** The government could look to reduce spending on other public services outside of the retirement income system. However, achieving large enough reductions could be challenging, particularly as health costs are also expected to rise. Unless services become much more efficient, reduced spending would result in lower service provision and lower living standards for many New Zealanders.
- **Accumulate debt.** The government could abandon its long-term fiscal objectives and allow debt to increase, reaching over 100% of GDP by 2050 – without accounting for economic shocks. This would undermine the efforts of successive governments since the 1980s, which have worked to keep debt at sustainable levels. Although many developed countries – including Japan, the United States, the United Kingdom, Italy, France, and Spain – have levels of public debt nearing or exceeding these levels, it is not a sustainable solution. In New Zealand's case, relatively high private debt constrains the country's ability to shoulder high public debt. As debt rises, the country's risk premium may increase, driving up interest rates, interest costs, and overall vulnerability to economic shocks and crises.

[17] These estimates assume that the cost of NZ Super increases by around 0.8% of GDP by 2050, tax revenue equals around 28% of GDP, and the labour force participation drops from 69.2% in 2025 to 66.6% in 2050.

Under an ad-hoc stance, successive increases in revenue, reductions in spending, or increases in borrowing will be required to respond to ongoing changes in the population age structure throughout the next 25 years and beyond.

8.2.2 A proactive approach means moving towards a more savings-based system

A proactive approach involves changing the retirement income system to reduce the pressures created by demographic change. This can be achieved by pre-funding more of the increase in costs and transitioning from the current pay-as-you-go system to a more savings-based system.

In a pay-as-you-go system, the retiree incomes are funded by taxes on current workers. Because population ageing affects the number of workers to the number of retirees, it can place a heavy burden on workers. In a savings-based system, retiree incomes are funded by savings accumulated over their working lives. This means that population ageing does not affect the amount each generation has to contribute. Savings could be accumulated at either an individual level – through private retirement savings accounts – or a collective level – through general taxation invested in a government fund.

The government could transition from the current pay-as-you-go system to something closer to a savings-based system using a combination of three approaches:

- **Reduce the costs of NZ Super.** This could be done in several ways (The Treasury 2021a):
  - **Raising the eligibility age.** Raising the age from 65 to 67 by 2050 would reduce the number of eligible people – and hence the costs of NZ Super – by about a tenth.[18] The eligibility age could be tied to average life expectancy so that retirement time stays constant as life expectancy rises. The disadvantage is that groups with lower life expectancies, such as Māori and Pacific peoples, would be disproportionately affected, and some workers, such as physical labourers, may not be able to continue working past 65. As the costs of other benefits would rise to support those who continue to work, the overall savings would likely be smaller.
  - **Indexing to CPI inflation rather than wages.** This would cause costs to rise more slowly and remove the link between NZ Super payments and productivity gains – reducing the cost of NZ Super in 2050 by about a fifth.[19] However, the living standards of retirees would fall behind the general population, increasing the risk of pensioner poverty and greater reliance on other types of government support.
  - **Introduce means-testing.** One way to do this would be to tax income earned by pensioners at higher rates than usual. Treasury (2021a) modelling of three potential tax regimes suggests this could reduce net NZ Super costs by about a tenth. The disadvantage is that it is complex to administer and reduces incentives to work in old age. Asset-based means-testing could also impact incentives to save.

  These approaches all have pros and cons and involve different trade-offs. A combination could be adopted. For example, the Commission (2024b) has discussed an

[18] NZIER analysis based on Stats NZ (2022b).

[19] NZIER analysis based on the Treasury (2024d).

option consisting of a means-tested benefit for people aged 65 and 66 and a universal pension for people aged 67 and over. This is similar to the approach introduced by New Zealand's first Labour government in 1938, which included a means-tested pension from age 60 and a universal pension from age 65.

These policies would reduce the role of NZ Super in the retirement income system, making people more reliant on private savings and impacting adequacy and equity.

- **Strengthen KiwiSaver.** To ensure people continue to have adequate incomes in retirement, the government could raise KiwiSaver contribution rates and expand coverage. Effectively, this would mean shifting along a spectrum from a system primarily based on a universal public pension to one that places greater emphasis on private retirement savings.

  This has pros and cons. On the one hand, it avoids the economic distortions associated with funding retirement incomes through general taxation. On the other, it removes the redistributive effect of NZ Super, tying retirement incomes much more closely to incomes during working years.

- **Pre-fund NZ Super.** Instead of reducing the role of NZ Super and raising the role of private savings, the government could retain NZ Super in its current role but use current tax revenues to fund the expected increased NZ Super payments of future retirees. One way to do this would be to significantly increase contributions to the NZ Super Fund so that it smooths the increase in NZ Super costs more strongly.

  Because most of the increase in NZ Super expenditure is expected to happen in the second half of the 21st century, the government would need to keep contributing to the Fund for longer. As a result, this would have the effect of increasing rather than decreasing the government's total contribution to NZ Super in 2050. However, it would help prepare the system for the subsequent decades.

  Raising contributions to the NZ Super Fund without raising debt will require raising taxes. It may be more politically feasible to introduce a new tax tied to a specific purpose (such as pre-funding the costs of population ageing) than to raise existing taxes.[20]

The transition could occur all at once at a fixed point in time or gradually over the next two-and-a-half decades. A proactive response involves making planned and durable changes in response to long-term trends rather than ad-hoc adjustments in response to short-term needs. Changes need to be signalled in advance so that people can adjust their savings decisions and plan for retirement.

The problem with a proactive response is that transition is costly. It inevitably results in a squeezed generation, who must bear a 'double burden' as they pay for current retirees as well as pre-funding their own retirement. The longer we wait, the more we will know about New Zealand's future, but the greater the transition cost will become.

[20] A similar approach has been used for the Accident Compensation Corporation (ACC), which collects levies to pre-fund the costs of injury-related compensation.

8.3 Retirement income policy and economic conditions form a feedback loop

So far, we have assumed that economic conditions are determined independently of the design of the retirement income system. However, there are reasons to think that the retirement income system can itself affect economic growth:

- **Some types of systems are cheaper to operate.** In a savings-based system, retirees' incomes are funded by savings, which earn returns that compound over time. Assuming the return on capital is higher than the growth rate of the economy (as is typically the case in advanced economies like New Zealand), this means that lower contributions are required to achieve the same level of retirement income compared to a pay-as-you-go system (Coleman 2024).
- **The design of the system can affect incentives to work and save.** The pay-as-you-go system involves high taxes on workers, which creates labour market distortions. Higher tax rates discourage labour supply by reducing incentives to participate in the labour force, work extra hours, search for better jobs or invest in education and skills. Under a savings-based system based on a contributory pension or a private savings scheme, individual contributions directly translate into higher retirement incomes, removing these distortions.
- **Larger pools of savings can help develop capital markets.** A common argument for a savings-based system is that it requires households or government to raise savings. This can contribute to higher national savings, supporting investment, capital accumulation, and economic growth.

  How well this argument holds in a small, open economy like New Zealand is debatable. First, increased savings inside the retirement income system might be offset by households reducing savings in other areas. Second, additional savings may be invested overseas or take the place of foreign capital inflows.

  Despite these potential offsets, savings and investments are still likely to increase to some extent. Higher savings will deepen capital markets, foster financial innovation, and improve resource allocation. In addition, a savings-based system is likely to lead to more investment in diversified assets (such as equities and bonds instead of property), reducing systemic risks.

Together, these considerations indicate that a more proactive policy response is likely to eventually lead to more favourable economic conditions. The 'double burden' will depress living standards during the transition period, which could take as long as 50 years (the full duration of a working life). However, after 25 years, economic improvements may begin to emerge.

8.4 Different conditions and choices lead to different possible futures

We are now able to spell out the four stylised possible futures for economic conditions and government policy affecting the retirement income system.

8.4.1 Future 1: Favourable economic conditions, ad-hoc policy

In the first possible future, the retirement income system remains in a similar form as today, but favourable economic conditions mean that the costs of NZ Super will rise by only

a small amount relative to GDP between 2025 and 2050. The government absorbs these costs through small changes to expenditure or tax revenue.

High wage growth enables those in paid employment to accumulate large KiwiSaver balances, supporting high living standards in retirement. Iwi savings schemes become more important over time.

A view emerges that policy reform is not necessary. The government focuses on accommodating the retirement income system by optimising other policy settings. As a result, the retirement income system remains relatively coherent.

High levels of migration are important for maintaining the size of the labour force and supporting the population. However, it becomes more difficult to sustain migration rates as international competition grows.

In 2050, New Zealand faces the prospect of a continued shrinking labour force and rising pension costs into the second half of the 21st century. Because of the much larger share of older people, making changes to the system is much more costly and politically challenging in 2050 than it is today. There is a perception of a lost two decades.

8.4.2 Future 2: Favourable conditions, proactive policy

In the second possible future, New Zealand transitions to a more savings-based retirement income system. While the transition places a 'double burden' on the working-age population, favourable economic conditions make it easier to afford.

The transition is carefully planned and signalled well in advance. Kiwis have confidence in the new system and see it as coherent and durable. They recognise that the system will provide greater value for money by allowing savings to accumulate.

The new system contributes to economic growth. It places more emphasis on individual savings, improving incentives to work harder and save more for retirement. Capital markets are more developed, supporting greater levels of domestic investment.

Strong economic prospects make it easier to attract international talent to New Zealand. However, maintaining a large workforce through high migration is not considered as important, allowing more flexibility around migration policy.

By 2050, more of the expected increase in NZ Super is pre-funded, and the country is well-placed to accommodate continued population ageing. On the other hand, there are some concerns that favourable conditions have led to low fiscal discipline, with unsustainably high government spending outside of the retirement income system. There are also concerns that the increased role of private savings will increase inequalities among older people.

8.4.3 Future 3: Unfavourable conditions, ad-hoc policy

In the third possible future, unfavourable economic conditions mean GDP grows slower than expected, so the costs of NZ Super rise more quickly relative to GDP, putting increasing strain on government finances. Governments alternate between fiscal discipline – raising taxes and making cuts to public services – and recklessness – allowing debt to rise.

As a result, living standards fall. More and more New Zealanders look to countries like Australia for better prospects, and New Zealand struggles to compete with other countries for highly skilled migrants. Low migration further contributes to the country's economic

malaise. Low wage growth means that KiwiSaver balances do not grow as quickly as expected.

The high cost of the retirement income system leads to sudden, ad hoc changes, damaging coherence and trust. New Zealanders find it hard to plan for retirement, and more people end up relying on government support for accommodation and aged care. Ongoing cuts lead to a lack of dignity for older age groups.

In 2050, New Zealand finds itself facing an even greater challenge. Population ageing is expected to continue, placing more challenges on the retirement income system. Finally, there is a recognition that the system is unsustainable and needs to change. However, change is significantly more costly than it was in 2025.

8.4.4 Future 4: Unfavourable conditions, proactive policy

In the fourth possible future, New Zealand transitions to a more savings-based retirement income system, but the change is made challenging by low economic growth during the transition period. Despite attempts to rapidly raise migration, the cost of the system rises quickly relative to GDP. As a result, the 'double burden' on the working-age population is particularly heavy.

In order to better afford the transition, the government raises tax revenue and reduces other types of expenditure. Fiscal discipline is tight, with a focus on fiscal efficiency to reduce the impacts on public service outcomes.

By 2050, when the transition is well underway, the future begins to look bright. New Zealanders feel that the new system is coherent and durable. Improved incentives to work and save and stronger capital markets are beginning to contribute to faster growth.

9 Conclusion

9.1 Aotearoa New Zealand will look quite different in 2050

The projections presented in this paper show that Aotearoa New Zealand will look quite different in 2050. The population will be larger and will be continuing to grow, but more slowly than today. Due to a combination of declining birth rates and increasing longevity, the population will be much older, with about 50% more people over 65. The population will also be more diverse, with more Māori, Asian and Pacific peoples.

As a result of the older population, relatively more people will be retired, and relatively fewer will be available for work. Despite this, the economy could be more than 50% larger than it is today due to the steady march of technological progress.

Assuming current settings do not change, government spending on NZ Super will be higher because more people will be retired. Spending on health will also rise. At the same time, there will be a smaller share of workers to fund government expenditure. These trends suggest that the retirement income system may not be financially sustainable.

9.2 The government must choose between an ad-hoc or proactive response

In the face of these projections, the government has two main choices. First, it could accommodate the rising costs of NZ Super by increasing taxes, reducing other types of

public services, or raising debt. Second, it could adjust the retirement income system, reducing the cost of NZ Super and pre-funding more of the increase in costs by transitioning from the current pay-as-you-go system to a more savings-based system.

A pay-as-you-go system makes sense when the growth of the working-age population is accelerating. When each generation of workers is larger than the one that came before, they can easily pay for the previous generation's retirement. The problem comes when population growth begins to decelerate. The number of retirees rises relative to the number of workers, so more spending has to be supported by a smaller pool of workers. A savings-based system prevents this problem as each generation of workers funds their own retirement rather than the retirement of the previous generation.

A combination of policy changes will be needed as part of the transition, and the government should begin exploring a range of potential options. The aim should be to find a set of policies that maintain or improve the adequacy, equity, and efficiency of the system while ensuring it is sustainable over the long term.

9.3 Change is manageable

While the ageing population will put pressure on New Zealand's retirement income system, there are reasons why adapting the system may not be as challenging as often assumed:

- **Population ageing will not be as severe as in other countries.** New Zealand currently has a relatively young population compared to many other OECD countries, and the old-age dependency ratio is projected to remain relatively low. In addition, public pension spending is currently well below the OECD average.
- **New Zealand has successfully managed demographic change before.** The post-war baby boom of the 1940s–1960s dramatically increased the number of children (Bryant 2003), straining the education system and driving government spending in areas such as family support, housing and healthcare. While the old-age dependency ratio in 2050 will be higher than ever before, the total dependency ratio – including both children (0–14) and older people (65 and over) will be similar to 1960 (Bryant 2003). Just as a younger population in the mid-20th century put pressure on the education system, an older population in the late 21st century will raise challenges for the health and retirement income systems. In many ways, the past 50 years have been the anomaly, providing a temporary demographic boost as the baby boom generation moved through the workforce.
- **New Zealand has experienced shifting from pay-as-you-go to savings-based models.** In the 1980s and 1990s, the Accident Compensation Corporation (ACC) operated on a pay-as-you-go basis, where levies covered only annual claims with no reserves for future costs. In 1999, ACC began shifting to a fully funded savings-based model, and levies were progressively increased to accumulate reserves. By 2019, ACC's main accounts were fully funded.

These factors show that change is manageable, and New Zealand can adapt to the long-term fiscal challenges posed by the ageing population.

9.4 It makes sense to plan ahead

Whatever path New Zealand chooses to take, it is a good idea to begin planning now. Acting soon allows for a smoother transition, reducing the risk of abrupt or disruptive changes in the future. As the population continues to age and the costs of NZ Super rise, the current settings will become more entrenched, making it harder to implement reforms without significant disruption.

It is important to clearly signal any changes in advance, as retirement income policy shapes long-term financial decisions, such as how much people save and when they choose to retire. It is also important to make a credible commitment to a durable system, as frequent policy changes and reversals create uncertainty and undermine confidence. A stable and predictable policy environment will help people to adapt to changes and plan for the future.

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