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# The Fiscal Implications of Our Future Population

## Abstract

New Zealand's ageing population creates a fiscal gap between government spending and revenue under current policies. The main fiscal pressures arise from New Zealand Superannuation, health expenditure, and an increasing old-age dependency ratio reducing the number of workers relative to retirees. Using an overlapping generations model, we examine expenditure and tax policies that could close this gap. Our analysis highlights the fiscal, economic and distributional implications of these alternative policies. We illustrate the importance of careful policy design to achieve fiscal stability and to balance the welfare (wellbeing) of current and future generations.

**Keywords** fiscal sustainability, New Zealand Superannuation, health, retirement policies, demographic ageing

New Zealand is facing a significant demographic transition. Its population is ageing due to increased life expectancy and sustained low fertility rates. Growth in the working-age population is slowing, while demand for public services, particularly health and income support to people of older ages, continues to rise. These trends are gradual, but their fiscal implications are significant and are becoming increasingly evident. They raise a central question: how can public policy sustainably support an ageing population?

We discuss three dimensions of this issue: the design of policies to achieve fiscal sustainability (consistent with the principles of responsible fiscal management in the Public Finance Act 1989); the economic consequences of those policies, including the behavioural responses of people to tax and superannuation policies; and intergenerational equity (how the costs of government services and transfers are distributed across current and future generations).

These dimensions are closely linked. Demographic change can increase spending pressures while slowing growth in the tax base, creating challenges for fiscal sustainability under current policy settings. Policy responses may involve higher taxes, lower spending, increased borrowing, or a combination of these approaches. Each option has different consequences for economic incentives, and the distribution of costs and benefits across generations.

In this article we examine these issues through the lens of demographic change and fiscal policy. Drawing on insights from an overlapping generations (OLG) model developed by the New Zealand Treasury, we explore how population ageing affects government spending and revenue, and

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what this implies for long-term fiscal sustainability (Binning, Özbilgin & Smith, 2026).

The analysis highlights that the fiscal pressures are structural and persistent, and that they cannot be fully offset through economic growth, migration or more favourable demographic outcomes alone. Maintaining fiscal sustainability in an ageing society requires explicit policy choices.

### Demographic change and why it matters for public finances

Population ageing occurs when the age structure of the population shifts towards older ages. It is driven by three broad trends: increased life expectancy, sustained low fertility and changes in migration.

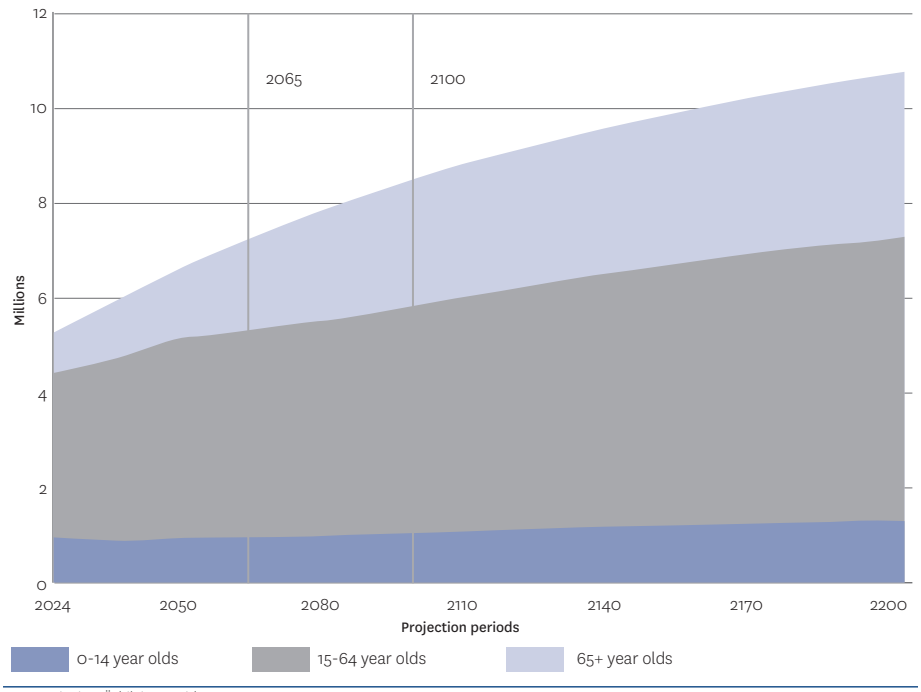
Life expectancy in New Zealand has been steadily improving due to decreasing smoking rates, improvements in medical treatments, and disease prevention (Statistics New Zealand, 2025). At the same time, fertility rates in New Zealand have been gradually declining, with a substantial decrease in recent years. From 1980 to 2010 total fertility rates varied between 1.9 and 2.1 over an average woman's lifetime, but since 2013 they have consistently fallen below 2.1, and in the last two years below 1.6 (see Binning et al., 2024).

Net migration also influences demographic outcomes, but these effects tend to be realised over multiple years, since the flows relative to the population are relatively small, on the order of 1% or less per year, with occasional spikes higher. Net migration gradually alters the age profile of the population because migrants tend to be of working age – it is relatively rare for older generations to move from one country to another. The current (base year 2024) assumptions in Statistics New Zealand's median population projections assume that annual net migration will result in a net gain of around 49,300 per year by the end of the projection horizon (Statistics New Zealand, 2025). But net migration is volatile and difficult to project and so the contribution of migration to future demographics is reasonably uncertain.

In New Zealand and many other advanced economies, the combination of these three factors is leading to a higher share of older individuals relative to those of working age. The old-age dependency ratio (which conventionally represents the number of people aged 65 and over for every 100 working-age people) has increased gradually from 14 in the mid-1960s to 25 in 2022, and according to projections developed by the Treasury could reach 57 by 2100. By the end of the century, the proportion of people over the age of 65 is expected to have doubled, implying significantly fewer workers supporting a larger share of retirees (Binning et al., 2024). Figure 1 provides a visual representation of how the different age groups in New Zealand are set to evolve from 2020 until 2200. The age group that is increasing most is people aged 65+.

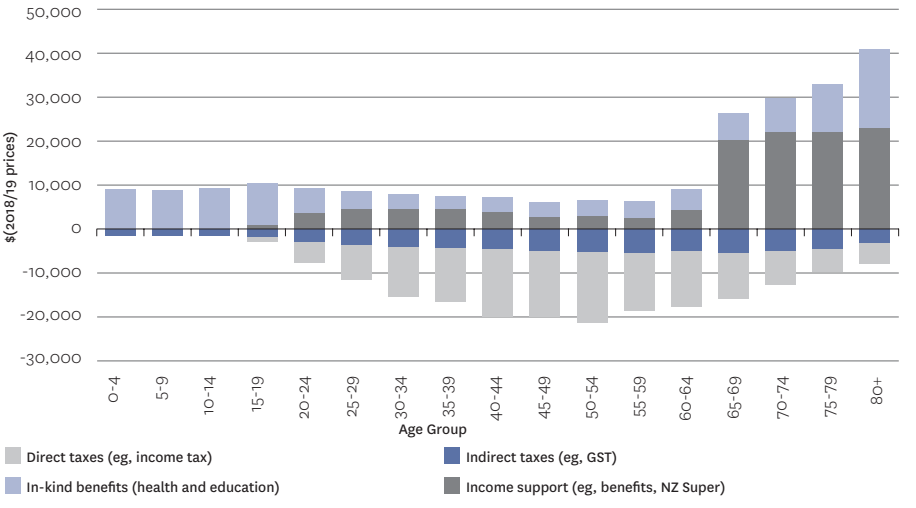
These demographic shifts directly affect both sides of the government's budget. On the spending side, an older population increases demand for age-related expenditure, particularly pensions and healthcare. On the revenue side, a smaller and more slowly growing workforce relative to the total population limits the growth of taxable income and, therefore, government revenue. As seen in Figure 2, individuals typically follow a life-cycle pattern in which they are net recipients of public resources in childhood, net contributors during their working years,

**Figure 1: Population structure**



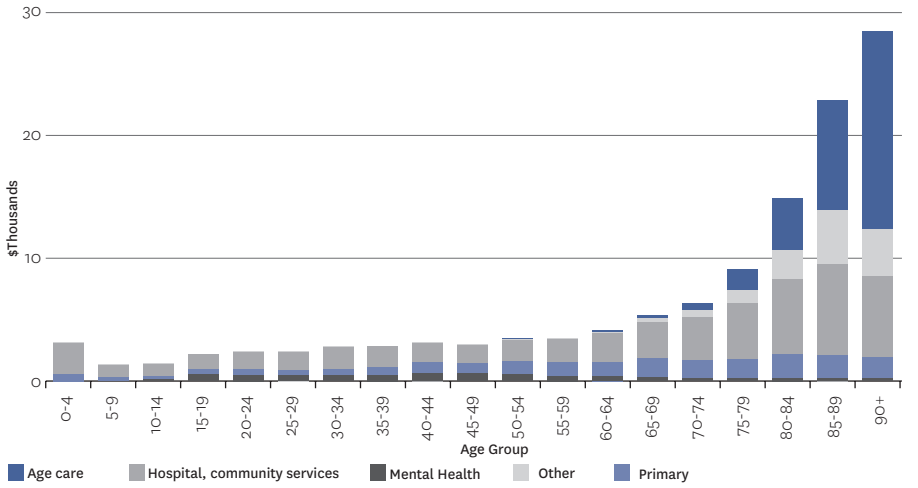

Source: Binning, Özbilgin & Smith, 2026

**Figure 2: Life-cycle pattern – average government tax and transfer by age group in New Zealand**



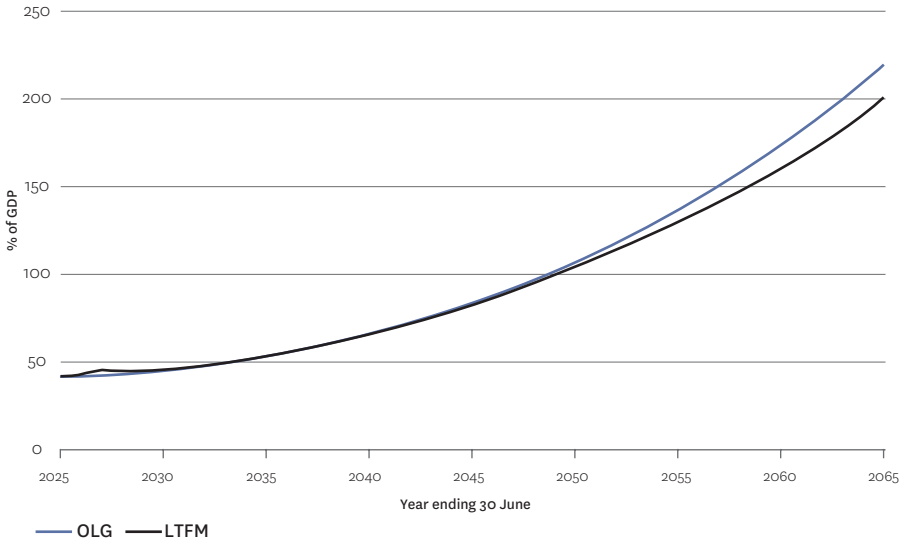

Source: Treasury, 2025, Figure 14

**Figure 3 Health expenditure by age group (per person per year)**




Source: Treasury, 2025, Figure 17

**Figure 4: Net core Crown debt projections**




Source: Treasury, 2025, Figure 20

and again net recipients from age 65+. It is the balance between contributors and beneficiaries that affects overall budget outcomes, and this balance depends on the age profile of the population.

Our analysis focuses on the age profile of the population because it is particularly important for the fiscal pressures associated with health and pension expenditure. Our OLG model also includes exogenous types of people with different income profiles, because people with different income levels interact with the tax system in different ways, and the importance of pensions to lifetime income profiles varies depending on how much people earn. Our OLG model does not incorporate ethnicity or sex, so we do not comment on outcomes associated with either dimension, though we note that there are differences in income, health and longevity across ethnicity and sex that would be interesting to explore. The Treasury has a microsimulation model that is better aligned to exploring such differences, but we focus this article on broader macroeconomic and fiscal outcomes.

### Why ageing creates fiscal pressures

Population ageing generates sustained fiscal pressure through a combination of spending-side and revenue-side effects, resulting in a persistent fiscal gap under current policy settings.

#### *Spending-side pressures*

The most significant spending pressures arise from New Zealand Superannuation (NZ Super) and public healthcare, both of which are highly sensitive to the age structure of the population.

NZ Super is a universal, publicly funded pension de facto indexed to wages and payable from age 65. As the population ages, a growing share of individuals becomes eligible for this entitlement, increasing expenditure. Expenditure on NZ Super was 3.9% of GDP in 2006, 5.1% in 2025, and if current policies are maintained is expected to grow to around 8% of GDP by 2065 (Treasury, 2025). Because payments are linked to wages,[1] NZ Super grows not only with the number of recipients but also in real terms per person.

Health expenditure also rises with age. Per capita healthcare costs increase steeply for older age groups, reflecting higher utilisation of services and more complex care needs. As the share of older individuals increases, so too does aggregate health spending. Projections from the Treasury's 2025 long-term fiscal statement suggest that health spending could rise from 7.1% of GDP in 2025 to around 10% in 2065 if policies are left unchanged (ibid.). Figure 3 illustrates how average health expenditure per person increases with age.

#### *Revenue-side pressures*

As the population ages and the old-age dependency ratio increases, a smaller share of the population will be of prime (25–54) working age. While the labour income tax base is projected to remain broadly stable as a share of GDP, population ageing will increase age-related expenditure, particularly on pensions and healthcare. This will require a greater share of economic output to be devoted to these costs and may increase the tax burden required to maintain fiscal sustainability.

#### *The fiscal gap*

The combination of spending and revenue pressures results in a fiscal gap. Under current policy settings, government spending increases more rapidly than revenue, leading to persistent deficits over the long term. Treasury projections suggest that, in the absence of policy change, these ongoing deficits would drive net public debt from around 40% of GDP in 2025 to approximately 200% by 2065, illustrating the scale of the underlying imbalance (see Figure 4).

This fiscal gap is predictable. The underlying demographic trends of lower fertility, increasing longevity and gradual ageing of the population are already well

understood and well documented. This imbalance would have to be addressed through lower expenditure, higher taxation or a combination of both to avoid the accumulation of debt that would otherwise be passed on to future generations. The projected rise in debt per capita – from around $34,600 today to almost $238,000 by 2065 (ibid.) – highlights the long-term burden of inaction. Some policy adjustment is required, but exactly what depends on an assessment of the costs and benefits of the alternatives.

### Insights from the OLG model: what the projections show

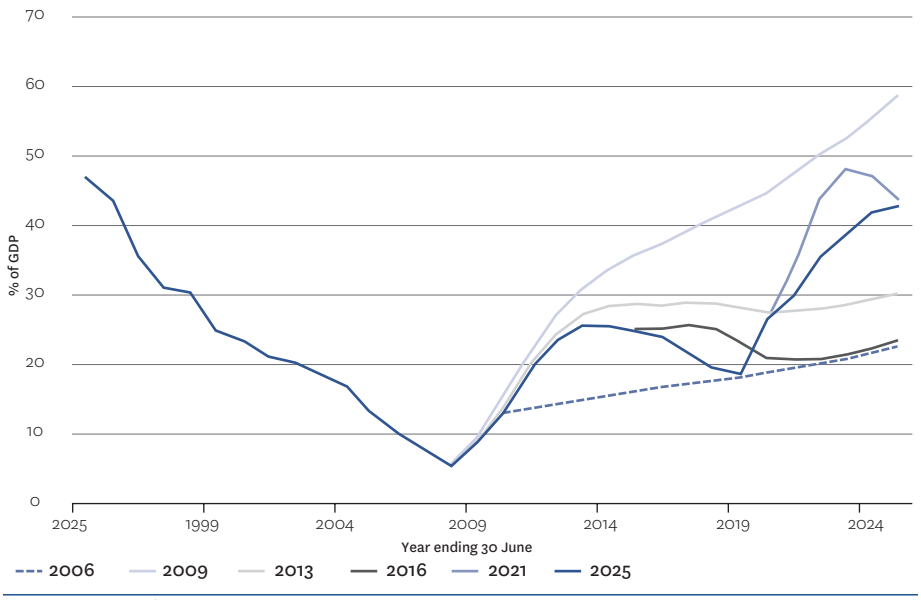
This article draws on insights from the Treasury's overlapping generations model used to quantify the fiscal implications of demographic change and explore potential policy responses. The model incorporates demographic projections, life-cycle behaviour and fiscal policy settings to produce long-term projections of spending, revenue and macroeconomic outcomes. The OLG framework captures both the aggregate fiscal effects of ageing and the behavioural responses of individuals and firms, allowing for a more comprehensive assessment of long-term sustainability.

We draw on the analysis reported in Binning, Özbilgin, Smith and Vu (2026a, 2026b, 2026c) and Binning, Smith and Vu (2026). These four papers consider two broad changes to taxes and two policy adjustments that would moderate the growth in superannuation expenditure. The tax papers consider using alternative taxes (or tax bases) to fund the expenditure and consider the implications of different levels of labour tax progressivity. The superannuation papers consider changes to the age of eligibility – progressively raising the age at which people receive NZ Super – and alternative forms of indexation, which governs the speed at which NZ Super increases over time. These are not the only possible forms of fiscal adjustment, but they do provide plausible options that should be considered against alternatives.[2]

#### *Baseline projection*

Under a baseline scenario calibrated to the median demographic projections from Statistics New Zealand,[3] the OLG model produces a clear and consistent result: population ageing leads to a sustained rise in government expenditure relative to GDP, driven primarily by NZ Super and health spending. In our baseline scenario, labour taxes increase to meet these expenditure pressures. In the absence of policy change, the increased spending is not matched by a corresponding increase in revenue as tax revenue remains broadly stable as a share of GDP in the long run. The fiscal consequences of these spending pressures are reflected in the Treasury's long-term debt projections (Figure 5). Across successive long-term fiscal statements, population ageing contributes to rising debt trajectories over the coming decades, indicating that current policy settings place increasing pressure on fiscal sustainability.

**Figure 5: Net core Crown debt projections by long-term fiscal statement publication, assuming no change to policy**




Source: Treasury, 2025, Figure 8

#### *The role of economic growth*

Stronger productivity growth can expand the range of choices available to future generations, enabling higher consumption and living standards while maintaining fiscal sustainability. In the model, higher productivity raises wages, output and tax revenues. Higher productivity and output expands the scope for increased consumption and government expenditure.

However, accelerating economic growth by increasing productivity does not materially reduce the fiscal pressures in the model given that both health and pension expenditures are explicitly or de facto indexed to productivity. Even under more favourable productivity assumptions, the increase in age-related spending continues to outpace revenue growth.

#### *More favourable demographics alleviate, but do not resolve, fiscal pressure*

Alternative demographic scenarios, such as higher net migration or more favourable population age profiles, can also influence the fiscal outlook. Increased migration boosts the working-age population, expands the labour force, and improves the balance between contributors and beneficiaries. Higher fertility also increases the working-age population, although these effects emerge only after several decades. These demographic changes can moderate fiscal pressures and delay their onset by supporting labour force growth and reducing the pace of population ageing. However, while such changes can materially improve fiscal outcomes, they do not fully eliminate the underlying fiscal challenges associated with population ageing. Migrants themselves age over time, and population ageing continues to place upward pressure on age-related expenditure.

More favourable demographic outcomes – such as high migration and improved fertility rates, or migration policy targeted at bringing high-productivity individuals into the country – can ease the adjustment required but do not fully offset the long-term fiscal pressures associated with ageing in the

scenarios considered in the Treasury's long-term fiscal statement (Treasury, 2025).

***Pre-announcing policy changes can moderate their adverse effects***

The Treasury's OLG modelling shows that the timing of policy adjustment matters significantly. Because fiscal pressures emerge gradually but persist over long horizons, delaying response allows deficits to accumulate and compound over time. As debt accumulates, rising interest costs amplify fiscal pressures, increasing the scale of the eventual adjustment required. By contrast, earlier policy action allows the fiscal burden to be spread across earlier generations and avoids the need for more abrupt increases in taxation or sharper spending cuts in the future.

Importantly, the Treasury's OLG analysis shows that pre-announcing changes in policy can help to moderate the welfare (wellbeing) effects of policy adjustment. People adjust their work and consumption behaviour in response to policy changes. Providing people with advance warning of the changes they will face means they can adjust more of their lifetime behaviour. For example, as Binning, Özbilgin, Smith and Vu (2026c) discuss, people can adjust more of their lifetime work and saving behaviour if they are provided with advance notice that their pension eligibility will be delayed, which helps to moderate the adverse effects they experience from such a policy.

## Policy choices: how could New Zealand respond?

Maintaining fiscal sustainability will require deliberate policy adjustment. This section sets out several of the policy levers available, emphasising that no single approach is sufficient. Rather, a portfolio approach, combining revenue, spending and growth-oriented measures, is likely to be needed.

***Revenue options***

Labour income taxes currently form the largest component of the tax base. Raising these taxes provides a relatively predictable source of additional revenue, but such increases can also generate broader economic effects. In the OLG framework, higher labour income taxes reduce after-tax wages and therefore weaken labour supply incentives. This can reduce labour supply and economic activity relative to a lower-tax scenario. The model captures these effects explicitly, showing that tax policy changes influence labour supply, saving and investment decisions across cohorts. As a result, increases in labour taxation generate less than proportional increases in revenue, reflecting the behavioural responses and economic distortions embedded in the model (Binning, Özbilgin & Smith, 2026).

> … earlier policy action allows the fiscal burden to be spread across earlier generations and avoids the need for more abrupt increases in taxation or sharper spending cuts in the future.

Alternatively, there could be a shift towards greater reliance on consumption taxes, such as the goods and services tax (GST). GST is generally considered less distortionary because it is a flat, broad-based tax that applies uniformly across consumption, spreading the tax burden over a wide base. In the OLG framework, this results in more limited effects on employment and output compared with increases in labour income taxes and primarily affects intertemporal choices, influencing the timing of consumption and saving over the life cycle. In this GST strategy, GST is doing the heavy lifting in raising revenue and households face lower labour income tax rates relative to the OLG baseline. Consequently, the GST strategy strengthens incentives to work and increase labour income. (In part the different incentives reflect the progressivity of labour income taxes.) Higher after-tax wages also increase pension payments, resulting in higher pension costs as a share of GDP. In addition, these efficiency gains come with distributional trade-offs: because consumption taxes fall on spending rather than income, they place a relatively higher burden on lower-income households and shift the tax burden across cohorts.

Another avenue is to broaden the tax base to include the taxation of capital income, land or other tax bases.[4] In the OLG framework, such measures may improve efficiency by reducing reliance on distortionary taxes on labour, allowing revenue to be raised with smaller effects on labour supply and output. However, they introduce important trade-offs: taxes on capital income can reduce saving and investment in the model, affecting capital accumulation and long-run growth, while taxes on land and assets may influence asset prices and the distribution of wealth.

***Adjustments to public expenditure***

Public expenditure could be adjusted by making changes to the eligibility age or indexation of NZ Super. In the OLG framework, increasing the eligibility age reduces the number of beneficiaries while extending labour force participation, but a large increase in the age of eligibility is required to meaningfully reduce pension costs. Similarly, modifying indexation (such as linking NZ Super payments to prices rather than wages or to some average of prices and wages) reduces the growth of benefit payments over time, lowering the lifetime value of transfers received by retirees. The model captures both the labour supply and fiscal effects of such policies, showing that such reforms can substantially improve long-term fiscal outcomes. However, they also have important intergenerational implications, as they shift the burden of adjustment towards current or near-retirement cohorts while improving fiscal sustainability for future generations.

In the health system, policy adjustments are less straightforward, as spending is

driven by both demographic pressures and underlying demand for services. However, there remains scope to improve efficiency, manage demand and influence the trajectory of costs. This could involve investments in preventative care, changes in service delivery models, or greater use of pricing and prioritisation mechanisms.

### *Growth-oriented strategies*

Higher productivity raises output and incomes, which expands the tax base and improves the government's revenue in dollar terms. In the OLG model, stronger productivity growth leads to higher wages and increased tax revenues, partially offsetting the rise in age-related spending. However, as discussed above, growth alone is insufficient to eliminate the fiscal gap. This does not diminish the importance of growth-enhancing policies, but it suggests that such policies should be viewed as a complement to, rather than a substitute for, fiscal adjustment.

### *Migration*

Migration policy can also influence the fiscal outlook, by affecting the size and composition of the population. Higher net migration increases the working-age population, expands the labour force, and strengthens the tax base in the short to medium term. In the OLG framework, this leads to improved fiscal outcomes by increasing the number of contributors relative to beneficiaries, slowing the projected decline in the worker-to-retiree ratio. However, as with growth, migration does not provide a permanent solution to ageing-related fiscal pressures. Migrants age over time, and unless inflows continue to increase indefinitely, the long-run demographic structure will still shift towards an older population. As a result, migration can delay and moderate fiscal pressures but cannot eliminate them; it acts primarily as a mechanism for smoothing the adjustment path rather than resolving the underlying imbalance.

### *A portfolio approach*

The Treasury's 2025 Long-term Fiscal Statement suggested that a portfolio of simultaneous policy adjustments would likely be required to achieve fiscal stability. Our OLG modelling shows that if a single policy lever is employed to meet the totality of fiscal pressures, then the adjustments will often be very large. For example, Binning, Özbilgin, Smith and Vu (2026c) show that the age of eligibility for NZ Super would need to be increased to around 72 years of age by 2065 to stabilise expenditure on NZ Super. Similarly, Binning, Özbilgin, Smith and Vu (2026a) show that, in the long run, if labour tax rates were used alone, they would need to increase by about 20 percentage points to fund the projected increase in expenditure. Using the goods and services tax as the sole form of adjustment would require the GST rate to increase by about 35 percentage points.

Each approach involves trade-offs between economic efficiency, distributional outcomes and political feasibility. Given that projected age-related spending is expected to rise by around 4–5 percentage points of GDP by 2065, a combination of policy measures across revenue, expenditure restraint, growth and migration is likely to be required. Distributing the adjustment across multiple policy channels reduces the economic distortions associated with relying heavily on any single policy instrument.

> The combination of rising longevity, slower labour force growth and increasing demand for age-related spending creates a predictable and persistent source of fiscal pressure.

## Intergenerational fairness: who bears the cost?

The pressures associated with population ageing raise questions not only of fiscal sustainability, but also of distribution. Specifically, how are the costs of adjustment shared across generations?

### *The intergenerational nature of fiscal policy*

The underlying policy choices have important implications for who pays, when they pay, and how those burdens evolve over time. The OLG model shows that fiscal policy is inherently intergenerational. Government spending and taxation link different cohorts through time, redistributing resources not only within generations but also across them. In the OLG model, different fiscal strategies, whether based on higher taxes, lower spending or increased debt, shift the burden of adjustment across generations in distinct ways.

### *Trade-offs across timing*

The timing of policy adjustment plays a critical role in determining intergenerational outcomes. Fiscal pressures build gradually but persist for an extended period, so governments face a choice between early and delayed action. This intertemporal trade-off highlights that 'doing nothing' is not neutral. It represents a policy choice that implicitly transfers costs to later generations, in ways that may be opaque since fiscal accounts do not clearly identify the contingent liabilities associated with the provision of health expenditure and NZ Super.

Early adjustment spreads the costs of ageing across current and future generations. Gradual increases in taxes or phased changes to spending programmes allow multiple cohorts to share the burden, reducing the need for abrupt policy changes later. This approach can smooth the transition and provide individuals with time to adapt their behaviour, such as adjusting savings or labour supply decisions. By contrast, delaying adjustment shifts a larger share of the burden to future generations. Persistent deficits accumulate into higher public debt, which must eventually be addressed through higher debt-servicing costs, higher taxes and/or

reduced public spending. In the OLG model, this results in future cohorts facing both higher tax rates and lower after-tax incomes, alongside the need to finance obligations incurred in the past.

### *Policy framing*

Different policy instruments imply different fairness considerations. Revenue-based adjustments tend to place greater weight on working-age populations, while spending-based adjustments can affect retirees and those approaching retirement. Some retirement policies, like increasing the age of eligibility, shift the burden of adjustment to specific generations, while other policies, such as amending NZ Super indexation, share the burden across both current and future retirees.

Our OLG modelling highlights the difficulty of finding a Pareto-improving adjustment that leaves everyone better off. Usually, policymakers will have to make decisions that trade off the welfare of different groups. Every policy response involves choices about who bears the cost of adjustment and when those costs are realised. Making these trade-offs explicit is therefore an essential part of designing a credible and sustainable fiscal strategy. Given the predictability of demographic change, there is an opportunity to implement gradual and signalled adjustments that balance fiscal sustainability with equitable burden sharing across cohorts.

## Conclusion: making the choices explicit

Population ageing will reshape New Zealand's fiscal landscape over the coming decades. The combination of rising longevity, slower labour force growth and increasing demand for age-related spending creates a predictable and persistent source of fiscal pressure. As the analysis in this article has discussed, the pressures arising from demographic change will require some form of fiscal adjustment.

Under current policy settings, government spending is projected to grow faster than revenue, generating a sustained fiscal imbalance. Stronger productivity growth does little to alleviate fiscal pressures but nevertheless improves welfare or wellbeing. More favourable demographic outcomes can improve fiscal outcomes temporarily, but additional adjustment is likely to be required in the long run. In this sense, there is no passive solution. Without policy change, future generations will face a higher debt burden and will be more constrained in their ability to spend public resources that meet their needs for health, education and other government transfers and services.

Governments must choose how to respond, drawing on a combination of revenue measures, spending adjustments and growth-enhancing policies. Each of these levers comes with trade-offs, affecting not only economic performance but also how the costs of adjustment are distributed across individuals and generations.

Decisions about when and how to adjust fiscal settings determine who bears the burden: current workers, retirees or future taxpayers. Delaying action does not remove the need for adjustment; it simply shifts the cost to later generations, often requiring more abrupt and concentrated responses later. Conversely, earlier and more gradual changes allow costs to be shared more broadly across cohorts and provide greater certainty for households and firms.

The question of whether New Zealand can 'afford' its future population is not purely a matter of fiscal arithmetic. It is a question of policy choices and societal preferences. A sustainable path will require transparent decisions that balance fiscal sustainability with intergenerational fairness, recognising that the trade-offs involved cannot be avoided.

1 Section 15 of the New Zealand Superannuation and Retirement Income Act 2001 determines how pensions are indexed to prices and wages.

2 St John (2025), for example, considers using the tax system to implement a form of means testing. The Treasury is also considering how means testing might influence outcomes in its OLG model.

3 In the OLG model's 'baseline scenario', labour income taxes increase through time to meet the increased expenditure pressures associated with health and NZ Super. We assume non-tax policies remain unchanged. The demographic projections broadly align with Statistics New Zealand's median national population projections, which can be found in the Aotearoa Data Explorer: https://explore.data.stats.govt.nz/.

4 We have not (yet) incorporated land into our OLG model. Doing so would complicate the production or consumption structure of the model.

## References


Binning, A., McKenzie, S., Özbilgin, M., & Smith, C. (2024). New Zealand demographics and their role in an overlapping generations model (Analytical Note AN 24/08). New Zealand Treasury. https://www.treasury.govt.nz/sites/default/files/2024-09/an24-08.pdf

Binning, A., Özbilgin, M., & Smith, C. (2026). *An overlapping generations model to investigate the fiscal implications of New Zealand's ageing population* (Working Paper WP 26/01). New Zealand Treasury. https://www.treasury.govt.nz/sites/default/files/2026-03/wp26-01.pdf

Binning, A., Özbilgin, M., Smith, C., & Vu, H. (2026a). Raising taxes to fund health and pensions in an ageing New Zealand: Alternative tax bases (Analytical Note AN26/03). New Zealand Treasury. https://www.treasury.govt.nz/publications/an/an-26-03

Binning, A., Özbilgin, M., Smith, C., & Vu, H. (2026b). Raising taxes to fund health and pensions in an ageing New Zealand: Alternative labour tax progressivity (Analytical Note AN26/04). New Zealand Treasury. https://www.treasury.govt.nz/publications/an/an-26-04

Binning, A., Özbilgin, M., Smith, C., & Vu, H. (2026c). Investigating parametric pension reform in New Zealand using an OLG model (Analytical Note AN26/05). New Zealand Treasury. https://www.treasury.govt.nz/sites/default/files/2026-07/an26-05.pdf

Binning, A., Smith, C., & Vu, H. (2026). Investigating pension indexation in an OLG model for New Zealand (Analytical Note AN26/06). New Zealand Treasury. https://www.treasury.govt.nz/publications/an/an-26-06

Statistics New Zealand. (2025, June 4). National population projections: 2024(base)–2078. https://www.stats.govt.nz/information-releases/national-population-projections-2024base2078/

St John, S. (2025). New Zealand Superannuation as a basic income. *Policy Quarterly*, 21(3), 59–65.

Treasury. (2025). *He tirohanga mokopuna: Long-term fiscal statement 2025*. New Zealand Treasury. https://www.treasury.govt.nz/sites/default/files/2025-09/ltfs-2025.pdf