International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Comparative Analysis of Demographic Dividend: Australia and New Zealand

Mr. Jaya Mokhith Rallapalli[1], Ms. Prisha Khandelwal[2]

[1,2]Student, Economics Hons, SRCC

Abstract

Pivotal in shaping the trajectories of national development is the demographic dividend, or the period of accelerated economic growth in a country as its population becomes more heavily concentrated in the working-age group. We examine these two advanced economies, New Zealand and Australia, which have different but related demographic trajectories of ageing. The objective of this study is to examine the extent to which the two nations utilized the demographic transitions to promote economic growth, while identifying the major policy responses and challenges faced by them in realizing the potential dividend.

New Zealand and Australia make for a particularly interesting comparative case, given their geographic proximity, similar economic structures, and like socio-political characteristics. Nonetheless, the extent to which countries are able to leverage these demographic benefits is determined by differences in immigration policies, aging processes, and labor market dynamics. Looking at workforce participation, productivity trends, and social trends, this paper examines the effectiveness of each country's approach to exploiting its demographic dividend

Policymakers need to understand similar differences across economic types in order to maximize demographic dividends. This study serves as part of the broader discussion of demographic economies, offering best practices and possible lessons for other countries experiencing similar demographic changes.

1. Introduction

The demographic dividend is rather a theory, which captures the economic gains from the changes in a country's population age structure, often following declines in fertility and mortality rates. This change occurs in the form of an increase in the number of working-age population in relation to dependents, boosting economic productivity, aggregate savings, and investment capacity

The economic consequences of population changes are widely classified into two interconnected stages: the first demographic dividend and the second demographic dividend. The latter one occurs when fertility decreases, raising the share of the working age population, thereby boosting the labor supply and economic productivity. Empirical evidence indicates that countries with speedy fertility decline and well-integrated economic systems have leveraged this stage to promote industrialization and structural changes

The second one implies that as the working-age population comes of age, aggregate savings and asset building enhance, supporting capital formation and investment. This period is more specifically important in the case of stronger financial systems and capital markets, which enable wealth transfers across generations and economic sustainability. The size of this varies depending on fiscal policies and the quality of institutions.

The reason for concentrating on New Zealand and Australia is that they have a shared colonial history, with both countries having been historically influenced by British rule, legal systems, and socio-economic

institutions. Yet, in spite of these commonalities, their population paths have diverged over time. Australia has seen high population growth fueled primarily by immigration, while New Zealand's trends have been influenced by low birth rates and sluggish immigration inflows

The two economies' structural makeup offers a strong foundation for comparative study. Australia's economy is predominantly resource-based, with extractive and mining industries significantly contributing to GDP growth. New Zealand, on the other hand, has a more agricultural economy and a service-based economic structure with agriculture, dairy farming, exports, and tourism dominating. Such sectoral variation affects labor force dynamics, investment patterns, and economic resilience in the context of demographic change

Perhaps one of the most significant determinants separating the population experiences of Australia and New Zealand is their different immigration policies. Australia has long pursued more robust immigration policies in order to counteract aging pressures and maintain economic growth, while New Zealand has pursued a more selective policy. Furthermore, labor force participation, employment gender gaps, and social security benefits differ across the two countries, leading to two different tracks in demographic dividend realization. Awareness of these differences is important to appreciate how policy institutions can affect demographic and economic outcomes in two structurally diverse economies.

To address these objectives, the study poses the following questions: How have demographic shifts influenced the economic growth in Australia and New Zealand? How have the government policies played in shaping the labor force dynamics? What strategies have been implemented to address labor shortages and workforce participation? What challenges and opportunities lie ahead for the aging population? How does Australia's demographic dividend differ from New Zealand's, and what lessons can be drawn from that respective approach? These questions will help to draw meaningful conclusions about the interplay between demographics, policy, and economic growth in both nations

2. Historical evolution of Demographics (From independence to the Present)

2.1 Population trends and Growth patterns

Prior to the European settlement, Aboriginal Australians and Māori possessed different demographic profiles formed by their ecosystems and social structures. Aboriginal Australians were estimated at 7,50,000 to 1 million prior to British settlement in 1788, lived in small, semi-nomadic bands based on hunting and gathering. They were culturally and linguistically diverse, with more than 250 dialects spoken throughout the continent. Conversely, the New Zealand Māori, who emigrated from Polynesia (Fig.1) between 1250-1300 C.E., established an agricultural and fishing-based economy with well-structured tribal systems (iwi and hapu). Their population in 1769 was estimated to be approximately 1,00,000-1,50,000

(Fig. 1)

Yet, European colonization had disastrous demographic consequences for both groups. In Australia, British colonists brought diseases like influenza, smallpox, and measles, which caused Aboriginal populations to decline quickly, with accelerated displacement and violent clashes. By the mid-19th century, Aboriginal Australians were a minority group marginalized from mainstream society. In New Zealand, the Maori too experienced population loss due to European illnesses and tribal warfare, whose origins were fueled by access to European muskets (Musket wars,1807-1842). The Treaty of Waitangi (1840) institutionalized British authority but granted the Maori some landholdings and political status, unlike Aboriginal Australians, who were completely dispossessed.

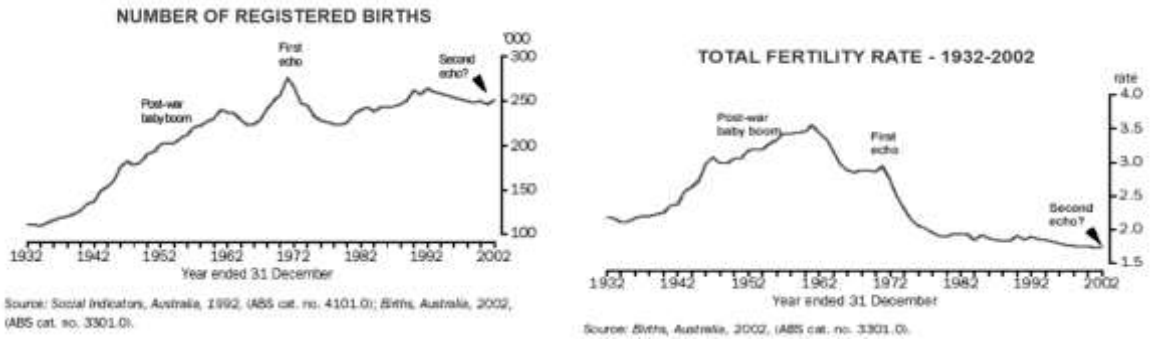
By 1900, the indigenous population had been significantly reduced, with Maori numbering around 42,000 and Aboriginal Australians, who faced total dispossession. By 1900, the indigenous population had been considerably reduced, with Maori numbering around 42000 and Aboriginal Australians even lower. These early demographic shifts set the stage for later developments, influencing economic participation and labor markets and ultimately shaping the demographic dividend of Australia and New Zealand in the modern era.

After World War II, Australia and New Zealand witnessed a remarkable hike in the birth rates, more popularly known as the "Baby Boom".This population boom had far-reaching effects on the growth of their individual workforces in the coming decades.

Australia's baby boom reached its initial peak in 1947, with 1,82,400 babies being born to couples who had restored family life that was interrupted due to the war.

Men left the military and resumed civilian work. Women abandoned wartime work in agriculture and industry and returned to more feminine roles as wives, mothers, and homemakers. The immediate postwar period was marked by high marriage rates and rising fertility. Having dipped to a low of 2.1 during the great depression, the total fertility rate climbed to 3.1 in 1947

After a brief fall, the births rose steadily in the 1950s and reached their peak again in 1961 when 2,40,000 children were born. The total fertility rate was 3.5 in 1961 and then dropped drastically as social and economic transitions caused increased use and acceptance of oral contraceptives



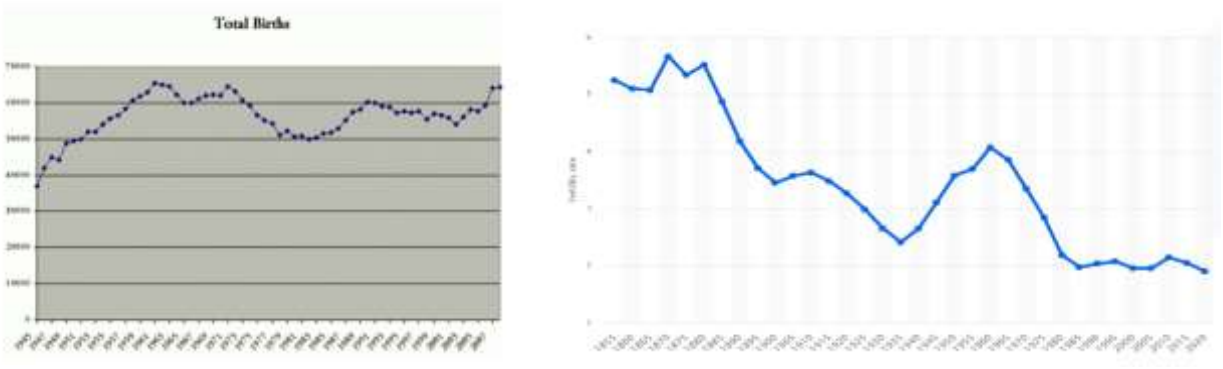
(Australia)

The Australian Bureau of Statistics (ABS) had observed that following four decades of declining fertility rates, the residual effects of Australia's post-war baby boom had become minimal by 2002. This conclusion stemmed from the anticipated echo effect, that is, the secondary increase in the birth rates resulting from the original baby boomers having children, was not as pronounced as expected. The ABS noted that for such an echo effect to manifest, age and cohort factors must align with a socio-economic

environment conducive to higher fertility. However, by 2002, Australia's fertility rate declined to 1.75 births per woman, reflecting the broader societal shifts such as delayed childbearing and smaller family sizes. This underscored the diminished impact of the baby boom on the subsequent birth rates.

On the other hand, New Zealand experienced a significant baby boom characterized by a marked increase in birth rates from 1946 to 1964. This period saw a surge in early marriages and large family sizes, contributing to rapid population growth. The peak occurred in 1961, with over 65,000 births recorded, which was the highest annual number during this era. At that time, New Zealand's total population was approximately 2.4 million people, making this birth rate particularly impactful

Total Fertility Rate



(New Zealand)

The baby boom had very significant effects on the country's infrastructure and public facilities. The sudden rise in population required an increase in school facilities, health facilities, and housing to support the rising number of children and young couples. Government policies in the late 1950s and early 1960s concentrated on constructing new schools, increasing the supply of electricity, and enhancing transport networks to cater to these needs

This population change also impacted social and economic policies, with the government looking to control the opportunities and problems of a young population. By the early 1970s, though, the fertility rate had fallen from 47% in 1962 to 38% in 1972. Reasons for the fall include the greater availability and use of contraception, alterations in attitudes toward family size within society, and economic factors.

Australia's and New Zealand's population structures have changed fundamentally over time as a result of the evolution in their population compositions, driven by changes in mortality rates, fertility rates, and life expectancy. In Australia, the post-war period saw the highest fertility rate of 3.55 children per woman during the late 1950s, followed by a gradual fall as a result of greater participation of women in the workforce, access to contraception, and a change in social attitudes.

By the early 2000s, the fertility rate had fallen to 1.74 below the replacement level, necessitating government measures like the baby bonus scheme. In the same way, in New Zealand, the baby boom was followed by a peak in fertility at 4.3 births per woman in 1961, after which it fell steeply because of urbanisation and improved educational prospects for women. Both nations had stabilised fertility around the level of 1.6-1.8 by the end of the 20th century, indicating a long-term shift towards small families

Death rates in both countries decreased dramatically because of improvements in medical technology, improved sanitation, and better living conditions. Australia's crude death rate fell from approximately 12

per 1000 individuals at the start of the 20th century to approximately 6 per 1000 by 2000, while life expectancy at birth rose from about 67 years in 1950 to more than 83 years by 2020.

New Zealand also experienced the same trend, with life expectancy increasing from 68 years in 1950 to more than 82 years by 2020, although life expectancy among the Maori population was lower than among the non-Maori population, a discrepancy that narrowed over the past few decades. These changes in mortality and life expectancy helped sustain a period of robust workforce growth during the 1960s to 1990s, when a high percentage of the population was in economically productive age categories.

2.2 Migration policies and their influence on the work growth

After World War II, Australia launched a massive immigration program to enhance economic productivity and counteract labor shortages. The government formed the Department of immigration in 1945 with ambitious goals to grow the population by 1% every year through immigration, acknowledging the reality that relying solely on the British immigrants was not enough. Therefore, Australia received a diverse wave of migrants, such as 300,000 people from Eastern Europe, to assist the "National Reconstruction Efforts."

The dismantling of the White Australia Policy was a watershed moment for Australia's immigration policy. Successive governments removed racially discriminatory immigration policies between 1949 and 1973, culminating in the abolition of the policy by the Whitlam government in 1973. This major reform opened up a more multicultural immigration policy for people from all backgrounds and cultures to come to Australia

During subsequent decades, Australia developed its approach to immigration towards more skilled migration. The point system enabled it to choose immigrants based on qualifications for education, level of language competency, and labor experience. By this method, it sought to bring in the kind of human capital that had the potential to make a critical contribution to its economy, increasing workforce development as well as matching particular skill needs

Post-war New Zealand immigration policies privileged migrants from Ireland and the United Kingdom. As the country's geopolitics and economic landscape changed, there was a strategic realignment towards welcoming migrants from Pacific nations and Asia. This shift followed changes like Britain's joining the European Economic Community in 1973, which challenged New Zealand to redefine its National identity and enhance its connections with the Pacific nations

Simultaneously, the Maori population grew and urbanized. In 1945, just 26% of Maori lived in urban regions; this increased to 62% by 1966 and to 80% by 1986. This swift urban migration brought deep social and economic changes, absorbing a large Maori workforce into city centers and shaping the dynamics of the labor market.

Despite these population movements, New Zealand has been confronted with chronic emigration issues, which have come to be termed "Brain Drain".Since the 1970s, New Zealand has witnessed periods of heightened emigration of the country's skilled workers in search of better opportunities elsewhere. Australia has been a major destination, and New Zealand has experienced a net loss of more than 800,000 citizens since 1979, most of whom settled in Australia. This trend had significant economic consequences, including possible shortages of skills and enhanced productivity

Over the past few years, this trend of emigration has strengthened. Between November 24 and the last 12 months, New Zealand witnessed a departure of 1,27,800 people, which is a 28% increase compared to earlier years. Over half of them were New Zealand Citizens, and they migrated to Australia to find better job opportunities. These migration flows highlight the intricate interaction between immigration policy,

demographic shifts, and labor market dynamics in determining both Australia's and New Zealand's labor markets

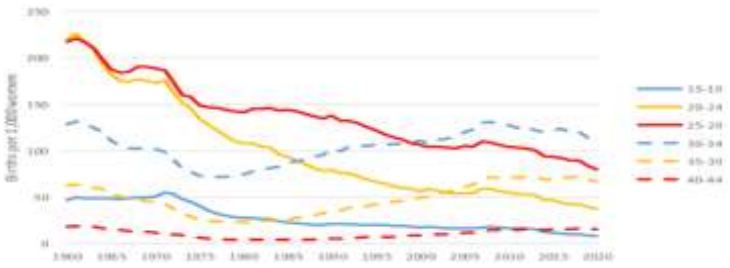
2.3 Dependency Ratios and Age Structure Changes

In the past decades, both Australia and New Zealand have experienced impressive demographic changes that are remodeling their economic landscapes. Previously, both countries experienced favorable demographic patterns, where both high fertility levels and high proportions of working-age populations enabled a strong demographic dividend.

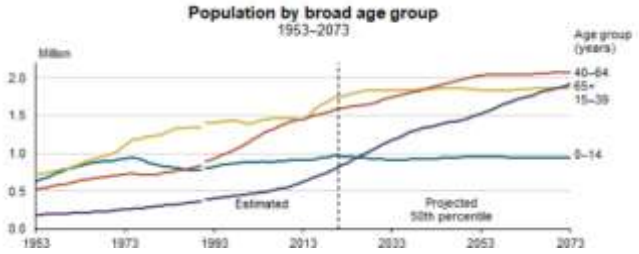
In New Zealand, the youth dependency ratio peaked at 56.72% in 1961, indicating that a large proportion of children were dependent on working adults. However, this ratio declined steadily over the decades, reaching 30.27% by 2020 due to declining fertility rates and social changes. Conversely, the old age dependency ratio increased from 14.6% in 1960 to 25.5% by 2020, reflecting the aging population of a trend mirrored in Australia as well. This change in the structure of the population has caused total dependency ratios in both nations to increase, and therefore put pressure on social welfare systems and public services

The demographic trend in Australia is no different. The "Total Fertility Rate"(TFR), which was above the replacement rate during the post-war period, has fallen over the years. In 2022, Australia's TFR was 1.63 children per woman, higher than the OECD average but still below the replacement level of 2.1(OECD,2024). The same decline is quite apparent in New Zealand as well, which has also seen a sharp decline in birth rates driven by education levels, higher female workforce participation, postponed marriages, and a cultural shift towards small families. Socioeconomic conditions, including the affordability of housing in urban areas, particularly in Sydney and Auckland, have also been a factor in this trend. The reports show that the pressures of rising costs of living and housing have discouraged young couples from having children, thus affecting the fertility rates and long-term demographic changes(Centre for Population, 2024)

These changing family forms and declining birth rates have direct implications for the working-age population. Although both nations are presently maintained by immigration and a fairly steady labor force participation, forecasts predict a rising old-age dependency ratio, which will put more stress on the working-age population. In New Zealand, for example, the worker-to-dependent ratio fell from 1.9 in 1986 to a forecasted 1.5 by 2031(Infometrics, NZ,2014). The trend has the potential to undermine the economic benefit achieved earlier with the demographic dividend and can result in rising fiscal burdens in the future



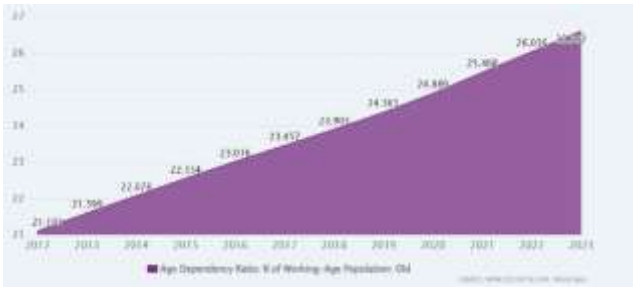
(Australia)



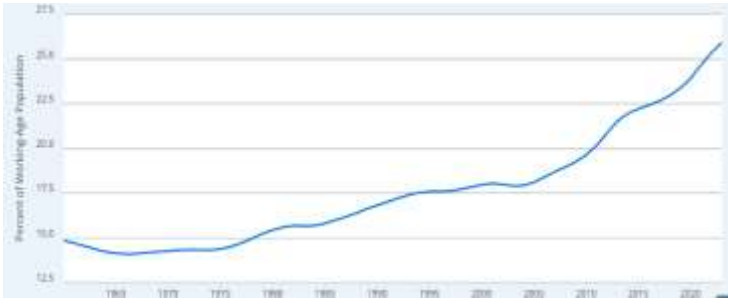
(New Zealand)

Age-Specific Fertility Rate

Both Australia and New Zealand have historically benefited from a favourable demographic dividend; recent and projected demographic dividend trend suggests that this is narrowing. The decline in fertility rates, coupled with increasing life expectancy and changing family dynamics, is reshaping the dependency landscape. As the working age population becomes relatively smaller compared to the growing dependent elderly population, both countries need to innovate in areas such as labor productivity, retirement policy, migration strategy, and social support systems to sustain economic growth and social cohesion in the upcoming decades



(Australia)



(New Zealand)

Dependency Ratio(% of working age population)

3. Economic Impact of the Demographic Dividend

3.1 Labor Force Participation Trends

Examining the labor force participation trends in Australia and New Zealand reveals significant insights into gender disparities, youth employment, and the balance between skilled and unskilled labor. These factors are crucial for understanding and leveraging the demographic dividend in both countries.

3.1.1 Gender-Wise Workforce Participation

Women's participation in Australia's workforce has also seen a dramatic shift. In 1966, just 36% of women

were active in the labor force. By 2024, their participation had increased to 63%. On the other hand, male participation fell from 84% to 71% over the same period. This change has contributed to increased dual-income families, raising household income and impacting housing market forces. Women now outnumber men in higher levels of educational attainment and are increasingly becoming prime income earners, further influencing dwelling preferences and requirements. In addition to these progressions, however, women continue to experience employment discrimination and lack of value within their work (THE AUSTRALIAN).

As of 2023, the female labor force participation rate in New Zealand has been 67.57%, representing the highest rate since 1991. This is a sign of an ongoing push towards the inclusion of more women in employment. Challenges continue in the form of occupational segregation as well as disparities in remuneration. Women tend to work in lower-paying, part-time, or casual work, which confirms the need for policies in favor of gender equality within the availability of jobs and payment (THE GLOBAL ECONOMY).

3.1.2 Youth employment and underemployment trends

Youth unemployment in Australia has witnessed volatility in the last few years. In 2020, it was up to 14.20%, driven by economic disturbances like the COVID-19 pandemic.The years that followed were lower, with 11.23% in 2021 and 8.23% in 2022. Yet,2023 saw a rise to 8.57%. These statistics reflect the uncertainty of youth employment and the need for special policies to aid young people in getting secure jobs. (Macro Trends)

The employment participation rate of New Zealanders aged 15-24 has been steadily decreasing over the last few decades. In 1986, the employment participation rate was 74.49%, dropping to 62.86% by 2020. The reasons for this decline could be higher participation in tertiary education and difficulties in moving from education to jobs(Index Mundi)

3.1.3 Skilled VS Unskilled laborforce

Australia is at present experiencing a significant shortage of skilled workers. For example, shifting to renewable energy and the next generation of manufacturing has placed greater emphasis on electricians, with an estimated 32,000 more being required by 2030. Even with significant earning capacity within these positions, issues remain regarding the recruitment and retention of apprentices, in part, because of fiscal pressures and shifts in career goals among the younger population (Financial Times)

In addition, construction is also feeling the impact of labor shortages in threatening targets on housing. Action to address is through federal funding of apprenticeship subsidies and added employer sponsorship. Still, the Industry needs an extra 83,000 staff to meet demand in 2029 (Daily Telegraph)

In New Zealand, women are disproportionately concentrated in lower-paid and lower-skilled jobs, which are frequently part-time or casual. Such a labor force segregation restricts the full use of the labor supply and underscores the importance of policies in promoting skills and fair employment opportunities among the genders. To correct such imbalances is vital to improve economic productivity and inclusive economic growth

3.2 Sectoral Shifts in Employment

Australia and New Zealand have experienced substantial sectoral changes in employment away from agriculture towards services, technology, and high-value-added industries. These changes have been influenced by not just economic globalization and policy reforms but also by the demographic dividend,

an economic growth opportunity that changes the population age composition, that is, when the working age group is greater than the non-working age group

Australia: The Resource Boom and a Technology-Oriented Shift: In Australia, the decline of agricultural employment has been dramatic — now, agriculture only employs about 2.5% of the workforce (World Bank, 2023). The mining and natural resources boom in the country during the 2000s generated a labor demand boom in the extractive sectors. Western Australia and Queensland states, in particular, were so affected, as mining emerged as the largest employer and drove infrastructure development as well as pay increases (Grattan, 2013).

Australia's comparatively younger population of the early 2000s, supplemented by a robust immigration policy geared towards importing skilled personnel, facilitated reaping the demographic dividend. The investments made in education, training, and innovation in this time frame were in line with the demands of the labor market, improving productivity and maintaining economic growth.

New Zealand: Agricultural, Tourism, and Financial Growth: New Zealand, although having a comparable development path, has had a stronger reliance on agriculture, particularly dairy and meat exports, which continue to be the focus of its export profile. The tourism and financial sectors have, however, expanded significantly. Before the COVID-19 pandemic, tourism alone accounted for approximately 9% of GDP and 8% of all employment (Stats NZ, 2019).

New Zealand's demographic transition has been less steep. Although the nation possesses a younger median age than most OECD nations, its population growth has been slower, and temporary migration dependence for labor shortages in industries such as agriculture and aged care constrains long-term demographic influence (OECD, 2021). Nonetheless, investments in education and digital upskilling have set it up to gain from a modest but prolonged demographic dividend.

3.3 GDP Growth and Productivity Gains

During the period 2000-2019, Australia increased its average annual GDP per capita by around 1.5% due to a rising working-age population and skilled immigrants. New Zealand's GDP per capita during the same period lagged behind Australia by around 1.2% annually. (IndexMundi - Country Facts)

Based on Total Factor Productivity (TFP), Australia has experienced fluctuating growth trends. While the country experienced strong TFP growth in the 1990s at an average growth rate of around 1.8% per annum, the growth rate declined drastically in the 2000s at an average growth rate of around -0.7% per annum. This decline is attributed to several factors, like a decline in technological adoption, global economic turmoil, and shifts in the domestic market

New Zealand's Total Factor Productivity (TFP) between 2000 and 2007 was moderate compared to previous years. Even though specific TFP annual growth rates for these years are not explicitly set out in publicly available documents, the New Zealand Treasury report suggests that the growth was less rapid, with the constraints being smaller capital investment and a smaller domestic market. These were constraints that limited the potential for huge productivity improvements. The subdued growth in TFP is also a consequence of structural problems in the economy, including lower technology spending and fewer opportunities for economies of scale on a large scale. Overall, New Zealand's productivity performance over this period reflects the complex interplay between these factors

Human Capital and Economic Development: Human capital defines the productivity, as well as the long-term economic development, of a country. According to the World Bank Human Capital Index (2020), Australia stood at 0.77 and New Zealand at 0.78. The Human Capital Index measures the productive potential of a child born today based on health, education, and survival rate. Australia's comparatively

high ranking is attributed to its health and education investments, which have resulted in an educated and healthy workforce. New Zealand's stronger ranking, however, reflects its high-quality human capital development, but it still has a lot of scope for improvement, particularly in diversifying its workforce capabilities in line with global technological innovation (data.worldbank.org).

4. Social & Policy Challenges: The Ageing Population & Future Constraints

4.1 Rising Dependency & Social Welfare Burdens

Population profiles of Australia and New Zealand are changing extremely rapidly, with the major reason being the growing number of aged citizens. The shift has extremely serious consequences for the long-term sustainability of public welfare programs as the retiring baby-boom generation ages. Both nations are experiencing a change in the structure of their populations by age, putting more economic burden on the workforce and threatening the long-term sustainability of their pension and health schemes.

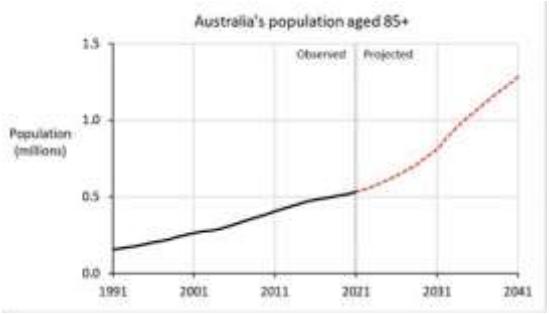
In Australia, the number of older individuals is increasing at a fast rate. In 2017, about 15% of the population was aged 65 years and above. The number is projected to increase to 22% by the year 2057, representing some 8.8 million individuals (Australian Bureau of Statistics, 2023). This shift in population is the result of the post-World War II baby boom, when fertility levels rose far in excess of three children per woman, creating a huge population that is reaching retirement age. Added to the issue is increasing life expectancy, with the 85-year-old-plus population expected to double by 2042 to more than one million. This therefore implies strongly that there is a higher demand for long-term healthcare as well as for older people's care services.

To capitalize on these demographic trends, Australia instituted the superannuation system during the early 1990s. This compulsory retirement savings scheme aimed to slow down dependence on the government-funded Age Pension, which, though still existing, is subject to means-testing. Although superannuation has transferred part of the pension burden from the state to the individual, its adequacy becomes more doubtful in the face of increasing life expectancy, low contributions by lower-paid groups, and inequality in men's and women's lifetime earnings. As people live longer and longer as retirees, the lengths of time over which they draw on their assets to survive grow, exposing them to the risk of living beyond their assets and increased reliance on public support later in life.

However, New Zealand has a system of universal pensions in the shape of New Zealand Superannuation, which provides an equal rate, non-means-tested pension to everyone who lives in New Zealand and is aged 65 or more. Although the system is simple and fair, it is increasingly being criticized on the grounds of its fiscal sustainability. As of 2020, the population aged 65 and over is 16.4%, and over 24% are estimated by the year 2050 (Index Mundi, 2023). As retirees are added to the population, there is some fear regarding the long-term sustainability of the universal pension scheme because there is no asset or income testing. In comparison with Australia, whose pre-funded superannuation removes temporary budget stress, New Zealand's scheme heavily depends on government finances at present and the labor force.

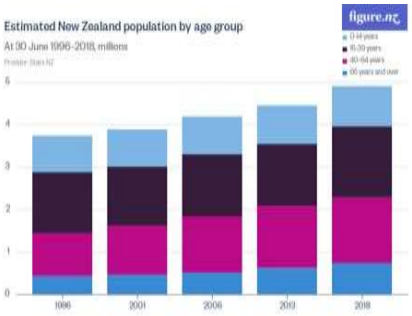
Both New Zealand and Australia also have an increasing old-age dependency ratio, meaning the number of people aged over 65 relative to 100 working-age individuals (ages between 15–64). The measure is vital in knowing the economic burden for social security schemes. In Australia, the ratio is expected to rise from 26 per 100 in 2020 to close to 40 per 100 in 2050. New Zealand is also following the same direction. The trends suggest that there will be fewer workers to support an aging population, and thus, the burden of public healthcare services, retirement pensions, and aged care will be more drastic.

Australia's Ageing Population Projections



Source: CEPAR – Centre of Excellence in Population Ageing Research

***New* Zealand Population by Age Group**



Source: Figure.NZ

These visuals show the steep incline in the 65+ age cohort, underscoring the scale of transformation that policymakers must address. As both nations grapple with ageing populations, innovative policy interventions—ranging from pension reform and aged care infrastructure to workforce re-engagement strategies for older adults—will be essential to maintain economic stability and intergenerational equity.

4.2 Skill Shortages & Immigration as a Solution

While Australia and New Zealand grapple with the economic implications of ageing populations and demographic change, immigration is now an indispensable tool to counteract labour shortages and stimulate economic growth. Retaining and attracting skilled labour in vital sectors such as healthcare, construction, agriculture, and information technology becomes crucial, particularly when these sectors experience difficulties in recruiting sufficient qualified professionals.

Australia: Coping with Political Debates and Economic Necessities

Australia has been using skilled migration to fill particular skills gaps in the country and enhance productivity. Initiatives such as the Skilled Independent Visa (subclass 189) and state sponsorship schemes have been able to introduce foreign skilled workers into highly demanded industries. They have contributed prominently to sustaining Australia's growth, especially when skills are locally in short supply. More recently, though, politics have become increasingly bitter over immigration levels and composition. In April 2025, Opposition Leader Peter Dutton called for a cut of 100,000 in Australia's net overseas migration (NOM) to 160,000 from 260,000 a year. That is equivalent to drastic cuts in international students and by 25% in permanent migration (The Guardian, 2025).

Its advocates say it is a step in the right direction to de-stress public services and housing markets. A few nervous business leaders, along with some economists, have warned that reducing skilled migration will worsen shortages of labor in crucial sectors. The Business Council of Australia indicated that it is worried

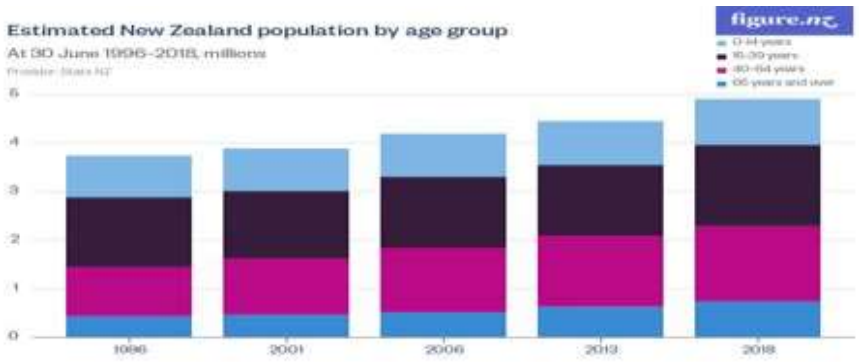
such a step would stop productivity and leave the economic potential of the country stagnant in its present place, when it already faces an ageing population and shrinking birth rate.

New Zealand: Ending Brain Drain and Redefining Immigration Strategy

New Zealand also has migration problems of its own. Like Australia, it depends on skilled migrants to plug gaps in the labor market. It, too, has a chronic problem of emigration, most of which goes to Australia. This custom is colloquially known as "brain drain,"—means recurring issues of loss of highly qualified and trained personnel, which have serious economic repercussions.

In its attempt to solve this issue, New Zealand has rewritten its immigration policy in the last few decades with increased emphasis on immigrants from Pacific and Asian countries to meet local labor demands. These policy changes have helped to meet short-term demands, foremost in health care and agricultural workers during crop seasons. Emigration remains an enormous issue in spite of these reforms. A University of Auckland report illustrates that since the 1970s, there has been a net cumulative loss of more than 800,000 citizens that continues to affect population sustainability and the vulnerability of the workforce discussion (University of Auckland, 2024).

Australian and New Zealand immigration policies are not only part of determining demographic change; they're part of economic strategy in both countries. With their aging populations and rising dependency ratios, the more reason there is to develop a well-planned migration system. The greatest challenge is in balancing political necessities, social integration, and economic imperatives. The future policy must attract the correct type of talent but also retain it so that migration can be a source of growth in the times ahead.



Source: Figure.NZ

5.1 Lessons from Past Policies

The job markets in Australia and New Zealand have evolved significantly, largely due to strategic policy choices aimed at managing demographic challenges and workforce shortages while ensuring long-term economic sustainability. Two key areas stand out: immigration policy and retirement system design. Both nations have taken unique approaches that offer valuable insights for future planning.

In Australia, skilled migration has been a crucial strategy for addressing labor shortages and bolstering economic growth. Over the years, the country has established a sophisticated point-based immigration system that attracts highly skilled individuals to meet specific industry needs. This approach has been instrumental in alleviating workforce shortages in critical sectors such as healthcare, information technology, engineering, and construction, which have long struggled with staffing issues due to an ageing population and gaps in domestic education.

The Skilled Migration Program is not just about meeting current labor demands; it also serves as a forward-thinking strategy. By welcoming younger, working-age migrants, the program helps reduce the old-age dependency ratio and enhances overall productivity. Research from the Department of Home Affairs and organizations like the Grattan Institute indicates that skilled migrants contribute more in taxes than they utilize in government services, reinforcing the fiscal viability of Australia's immigration policies.

Equally important is Australia's superannuation system, introduced in the early 1990s. This mandatory retirement savings scheme requires employers to contribute a portion of their employees' earnings to a retirement fund. Designed to decrease reliance on the Age Pension, this system shifts the retirement financial burden from the government to individuals. The success of superannuation is reflected in projections from the Association of Superannuation Funds of Australia (ASFA), which indicate that government spending on the Age Pension, initially expected to rise to 4.6% of GDP by 2041-42, may instead only reach 2% of GDP by 2062-63. This shift not only alleviates concerns about intergenerational equity in an ageing society but also improves the quality of life for current retirees, allowing them greater financial stability and less poverty.

However, challenges persist. Superannuation savings are unevenly distributed, with women often retiring with lower balances due to factors like interrupted careers, the gender pay gap, and part-time employment often associated with caregiving. This disparity highlights the need for policy adjustments that address gender equity within the retirement framework.

New Zealand takes a different approach, especially concerning labor migration and workforce development. The country has traditionally relied on short-term, regionally targeted migration to meet labor demands. The Recognised Seasonal Employer (RSE) Scheme, established in 2007, exemplifies this strategy by allowing workers from Pacific Island nations to come to New Zealand for temporary work in horticulture and viticulture.

By the 2016-17 period, the RSE scheme had facilitated the approval of over 15,000 temporary work visas for individuals from Pacific nations, reflecting the growing dependence on this labor force to support New Zealand's agricultural sector, which plays a crucial role in the economy. However, this model has its limitations. It tends to be seasonal and offers little opportunity for long-term integration or skills enhancement among workers. As the domestic workforce ages, such temporary solutions may not be enough to ensure a stable labor supply without additional avenues for permanent migration or significant domestic skill development.

To combat reliance on foreign labor, New Zealand has prioritised education and skills training. The government has launched various initiatives aimed at upgrading the local workforce's capabilities through vocational education, incorporating STEM curricula in high schools, and providing retraining programs for adults. These efforts aim to strengthen the country's human capital and make it more resilient to external shocks, like shifts in migration policy or disruptions in the international labor market.

Despite these initiatives, New Zealand grapples with "brain drain," where skilled professionals migrate to countries like Australia that offer better pay and career advancement opportunities. This trend diminishes the returns on domestic education investments and creates a need for continuous adjustments to immigration policies and wage structures to retain talent. The current government strategy appears to focus on two main goals: improving retention by creating better job opportunities at home while simultaneously filling labor gaps with high-quality, selective immigration.

The experiences of both countries reveal the critical role of **policy integration**—aligning labor, education, migration, and retirement strategies to respond to demographic realities. Australia's success with its

superannuation system and high-skill immigration demonstrates the benefits of long-term, forward-looking planning. In contrast, New Zealand's targeted seasonal migration and education reforms highlight the importance of flexibility and regional cooperation in labor management.

Yet both systems also underscore the risks of overdependence on external labor markets and the challenges posed by demographic transitions. As dependency ratios increase and native labor force participation declines, both countries must fine-tune their policy tools to ensure sustainable and inclusive growth.

For Australia, future reforms should focus on improving equity within the superannuation system, particularly for low-income earners and women. For New Zealand, a shift from temporary to semi-permanent migration frameworks, alongside deeper investment in workforce retention, will be critical. Both nations would benefit from coordinated regional migration agreements, particularly with Pacific neighbors, to ensure ethical and sustainable labor mobility. Ultimately, the ability to learn from past successes and adapt to emerging demographic and economic trends will determine how well Australia and New Zealand can harness their demographic transitions for long-term prosperity.

5.2 Future Policy Recommendations

As Australia and New Zealand both continue to struggle with the medium- and long-term effects of demographic ageing, labor shortages, and changing work arrangements, firm and forward-looking policy action must be taken to provide economic security and social equity. Four key areas of intervention are identified in this section—strengthening workforce and productivity, sustainable immigration, retirement system reform, and workplace integration of women, specifically with recommendations based on new data and policy analysis.

A. Workforce & Productivity Improvement

Both Australia and New Zealand's biggest challenge is a declining ratio of working-age populations to dependents. With growing ageing populations, the need to sustain labor forces and improve productivity is more urgent than ever before. This will involve significant expenditure on up-skilling and re-skilling, particularly for the older workforce.

In Australia, organizations like the Centre of Excellence in Population Ageing Research (CEPAR) have funded policies that promote lifelong education and training aimed at mid-career and older workers. Such programs need to transcend mere training and focus on domains of technological proficiency, digital literacy, and soft skills, facilitating flexibility in an evolving economy. Employer training supplied by government subsidy, employee training tax credits, and public-private partnerships may constitute a policy regime for such transformation.

New Zealand also has the same demographic pressures and has reacted with initiatives such as Work Connect and Mana in Mahi to re-engage disadvantaged groups and the young unemployed. These could easily be rolled out further to engage older workers more comprehensively and to meet changing industry requirements. Industry-based certification schemes feeding into national qualifications systems could make these more appealing.

Besides human capital development, automation and artificial intelligence (AI) will increasingly be the focus of ensuring that workforce shortages are addressed. An ASFA report in 2024 indicates that incorporating automation in industries such as logistics, agriculture, and aged care can increase productivity by 1.2% per year, which would compensate for the adverse impacts of declining workforces. This is something that should be addressed in an inclusive manner so as not to replace lower-skilled employees. Governments should help businesses with transition funding and establish national AI literacy initiatives to democratize access to technological benefits.

B. Sustainable Immigration Policies

Immigration regulations will continue to be a means of addressing skill shortages and economic vitality, but policies will have to evolve to strike a balance between economic usefulness and social cohesion. Australia's point system is a good model to identify high-skill migrants, but recent political controversy, like the move by Peter Dutton to cut net overseas migration by 100,000, reflects increased public anxiety about strain on infrastructure and assimilation.

To find a way out of this burden, both nations must lay aside short-term measures and adopt long-term migration policies. These include:

- Streamlining visa categories to match long-term national shortage skills, particularly in health, education, and green technologies.
- Regional migration programs should be made more inclusive so that migrant populations are spread more evenly across cities and towns.
- Boosting settlement programs to settle new arrivals through language classes, community integration, and foreign qualification recognition.

New Zealand, with its Pacific-focused migration history, needs to reconcile seasonal labor streams with streams to permanency for migrants who play a significant role in long-term economic growth. Increasing the scale of the Accredited Employer Work Visa (AEWV) scheme and tying it in with residency incentives would assist New Zealand in retaining skilled workers in priority industries.

Critically, both nations have to protect migrant workers from exploitation, pay them fairly, and treat them equally in the labor market. Not only does this strengthen social trust, but it also enables migrants to settle and facilitates innovation and entrepreneurship.

C. Social Security & Retirement System Reforms

With an increasing life expectancy—83.1 years today in Australia, 82.4 years in New Zealand—the retirement systems need to be redesigned to be financially sustainable and yet provide sufficient support to ageing populations.

The Australian superannuation system is renowned globally for its pre-funded scheme that has significantly lowered the long-term public pension burden. However, there remain contribution and outcome imbalances, particularly for part-time employees,

women, and the disadvantaged. Future reform must take into account:

- Making superannuation contributions compulsory during parental leave years.
- Applying tax offsets to low-income super savers.
- Encouraging pooled retirement products to counteract longevity risk and improve fund management.

On the other hand, New Zealand's universal scheme of old-age pensions (New Zealand Superannuation), although fair in its design, is funded from general taxation and will be placing increasing fiscal pressures. The scheme will account for 7.7% of GDP by 2060, compared with the 5.2% currently, in Treasury estimates. Changes made in the long term—increasing the age of entitlement, adding a moderate means test, or promoting voluntary supplementary savings—would improve sustainability without shortening the scheme's universality.

They also must pursue policies to promote longer workforce participation. Flexible retirement schemes, phased retirement patterns, and employer incentives to continue hiring older workers can lengthen productive working years and enhance the economic security of older workers. The retirement age at which one retires in Australia today, for instance, is rising incrementally to 67; raising it again to 70, as some politicians have proposed, could be achieved if backed by robust health and work support.

D. Building Gender Inclusion in the Workplace

Gender inequalities in labor market participation, compensation, and retirement income continue in both nations, constraining economic potential and reinforcing structural injustice. In Australia, the gender pay gap continues at 13% as of 2023, and women retire with superannuation accounts 47% below the average compared to men. In New Zealand, the same applies, and female labor force participation trails male participation by 7–10 percentage points across age groups.

Filling these gaps will involve a multi-layered strategy. The first is to increase access to affordable childcare to facilitate full-time work among women. The Australian 2022 budget plans for the expansion of child-care subsidies were a welcome step in the right direction, but unaffordable costs and shortage remain disincentives for female participation, and, most significantly, low-income families.

Second, mandatory disclosure of pay reporting and adherence to anti-discrimination law can narrow pay gaps and influence employer behavior. Australia's Workplace Gender Equality Agency already mandates reporting pay data for large firms, but could do this for small firms and make it conditional on qualification for public contracts.

Third, encouraging family-supportive workplace strategies like flexible scheduling, equal parental leave, and return-to-work programs can support both parents as well as create an incentive for increasing labor supply. Companies would be encouraged with tax credits or grants to bring such policies to effect, achieving a win-win situation for the employees and firms.

Lastly, active measures must be taken to bring women into high-growth, high-wage fields like STEM, finance, and technology. Scholarship programs, mentorship structures, and leadership development can break down institutional barriers and get women represented at all levels of the workforce.

6. Future Prospects: Demographics, Economy, and Growth to 2050

6.1 Trends in Population Growth and Ageing

As per the United Nations World Population Prospects (2023 Revision), both Australia and New Zealand are projected to experience steady if slowly rising populations through 2050. The Australian population can be estimated to rise from approximately 26.5 million in 2023 to nearly 33 million in 2050, whereas New Zealand's population can be estimated to increase from 5.1 million to approximately 6.3 million over that same period.

This increase is also with a high level of large-scale demographic change. The median age of both nations will rise significantly, from 38.4 years to 44.2 years in Australia and from 38.2 years to 45.1 years in New Zealand. This is driven by ongoing fertility declines—around 1.6 in Australia and 1.7 in New Zealand—well below the replacement level of 2.1.

The consequences of these demographic trends are complex. A rising median age will create a growing old-age dependency ratio, potentially putting a squeeze on public finances, especially health care, aged care, and pension funds. At the same time, falling fertility rates, absent offset by ongoing immigration, would potentially produce a declining working-age population, weakening labor market dynamism, and long-run economic competitiveness.

6.2 Economic Growth and Sectoral Transformations

Both nations will be undergoing dramatic economic transformation by 2050, driven by advances in technology and global trends towards sustainability.

Australia, rich in institutions and vast natural resources, is set to re-shape itself as high-growth sectors such as green hydrogen, artificial intelligence, quantum computing, and processing of strategic minerals.

Australia's goal of becoming a renewable energy superpower—shipping clean energy to Asian economies—is poised to redefine its industrial structure and trade framework.

New Zealand, despite having a smaller land extent, is placing special emphasis on high-value sectors such as biotechnology, agritech, clean tech, and green tourism. Its global reputation for sustainable practice makes it a leader in a carbon-wise world economy.

Yet the looming labor shortages, driven by population aging, have the potential to strain growth. Both countries are confronted with the possibility of having to grapple with tightening labor markets and consequently higher wages and inflationary pressure. Governments may have to adjust immigration policy, invest in upskilling, and accelerate automation in reaction to these pressures. Australia has already raised its skilled migration program, and New Zealand has implemented targeted migration lists to import high-priority occupations.

6.3 Future Demographic Dividend Scenarios

The future demographic dividend of Australia and New Zealand will hinge on how well each nation manages the complex interplay between population growth, labor market engagement, and productivity gains. Three scenarios can be outlined:

Best-Case Scenario: Both countries have good strategic immigration policies, attract skilled migrants, and heavily invest in R&D and education. Economic advancement can be accelerated by productivity gains through AI as well as green technologies in a context of an ageing population. In this case, population transformation is also being addressed adequately, in which the countries will be able to make the most of their human capital, as well as maintain great economic performance. Without policy action, both countries can suffer rapid depletion of labor, leading to flat or declining GDP growth. Fiscal pressures from ageing would crowd out productive public expenditure, and labor shortages could snuff out innovation. The demographic dividend would in reality be a demographic drag.

Middle-Ground Scenario A less dramatic adjustment is incremental rises in labor input and productivity that, to some degree, counter the depopulation impacts. Immigration policy does relatively well, and sectoral movements into services and automation provide some buffer. Economic adjustment is underway, but with shortfalls from earlier baselines.

Comparative Outlook: Though both Australia and New Zealand face similar demographic issues, their paths diverge. Australia's larger and more diverse economy and a wider system of immigration can potentially provide it with more stability. More flexible policy responses are needed in New Zealand's smaller population and tighter labor market, but allow for more innovative and targeted experimentation. Ultimately, success at a second demographic dividend will depend on institutions' ability to adapt, immigration policy to respond, how human capital is invested, and how technology is poised. Both countries have to do these things wisely if they are to sustain economic growth and the well-being of society in an increasingly older world.

Conclusion

Historical Demographic Trends and Their Economic Impacts During the last century,

Australia and New Zealand have experienced tremendous demographic change. Both countries in the post-World War II era experienced a high and noticeable baby boom, followed by very high growth in population and consequently in economic activity. Both high birth rates, together with wide-ranging immigration policies—most notably from Europe—created a youthful, productive workforce. But since

the 1970s, fertility rates have declined consistently, dropping below the replacement level. Australia's total fertility rate is currently about 1.6, and New Zealand's is about 1.7.

At the same time, advances in healthcare and living standards have increased life expectancy, and both nations have a steadily ageing population. The economic consequences of these changes have been dramatic. In the second half of the 20th century, both nations enjoyed a demographic dividend—a time when the working-age population was much greater than the dependent (young and old) population. This population profile facilitated high economic growth through higher savings, investment, and labor productivity. But as the population ages, the economic burden has begun to shift. Public pension systems, healthcare facilities, and social welfare programs are coming under greater pressure. The dependency ratio is increasing, with fewer workers supporting an increasing number of retirees. Migration has helped to counter some of these trends, most notably in Australia, where a forward-looking, points-based skilled migration system has served to sustain labor force growth and economic vitality.

Policy Successes and Failures: A Comparative Perspective. Australia and New Zealand have followed remarkably different courses of action in their response to their demographic pressures, with varying degrees of policy achievement. Australia has been more forceful in relying on migration as a means to reverse demographic ageing. It's a very structured and highly focused skilled migration program that has enabled it to regenerate the workforce and fill skill shortages. New Zealand also has a points system, but with a lower intake and slightly less focused targeting. Under pension reforms, Australia's combination of public and private systems—particularly the compulsory Superannuation Guarantee—has increased long-term sustainability, while New Zealand still makes greater reliance on a public, universal pension with the voluntary KiwiSaver scheme.

In terms of workforce participation, both nations have implemented policies to encourage older people to stay economically active. Flexible work, tax concessions, and phased retirement schemes are increasingly prevalent, though Australia's efforts in this respect have been stronger. Family support policies also vary slightly. Australia offers relatively generous parental leave and childcare subsidies, intended to ease the cost burden on young families. Although New Zealand has comparable structures, Australia's wider coverage and greater investment levels provide it with a marginal advantage. Neither nation, however, has managed to stem falling fertility rates. Finally, both healthcare systems are fairly robust, but Australia's public-private hybrid model might provide more resilience in the event of demographic strain.

Demographic Dividend: Australia vs. New Zealand

The idea of the demographic dividend—economic growth opportunities from a larger proportion of working-age people—has unfolded in varying ways in Australia and New Zealand. The demographic window of Australia opened earlier and was utilized more successfully, in part because it had a larger population, more robust policy institutions, and a more militant migration policy. The combination of a large, educated labor force and targeted economic reforms enabled Australia to sustain GDP growth, with a significant portion directly coming from the expansion of the labor force and the buildup of human capital. New Zealand benefited from a demographic dividend as well, though the smaller population and less diversified economy resulted in the economic benefits being somewhat narrower.

Nevertheless, it maximized the window through its strong focus on education, social cohesion, and innovation. The fundamental difference is how deep the structural reforms went: Australia's use of compulsory retirement savings and ongoing investment in skilled migration better prepared it for long-term stability, while New Zealand has depended more on its public systems and has not reformed its pension and labour policies as much. Long-Term Sustainability and Demographic Flexibility. Both nations

will have strong sustainability issues in the future. The ageing population will require more spending on pensions, healthcare, and aged care services. The change poses vital issues regarding intergenerational equity, labor shortages, and pressures on the budget. Adaptability is the key to addressing these issues. Australia seems better equipped in this respect because of its institutional readiness—its superannuation system mitigates reliance on public pensions, and its skilled migration program perpetually updates the workforce. In addition, policies encouraging older worker engagement and lifelong learning are countering the losses in productivity due to ageing.

New Zealand, while subject to similar demographic pressures, might require more ambitious and structural change to ensure sustainability. The comparatively modest size of its population and economy might be an advantage if combined with nimble, focused reforms. Increasing KiwiSaver coverage and take-up, encouraging skilled migration, and enhancing aged care and health service capacity will be essential. In each instance, incorporating technological progress, specifically automation and AI, into the workforce will also be important in reducing demographic pressures.

Overall, although both Australia and New Zealand have been able to use their demographic dividends to good effect in the past, the day of effortless growth fueled by positive demographics is over. The future will depend on how well each nation adjusts its institutions and policies to a new demographic reality. Australia, while possibly more resilient through its active and diversified strategy, has New Zealand's room to effect swift and effective adjustments. Together, they provide a useful comparative study in overcoming the challenges of demographic transition in the 21st century.

References

1. Australian Bureau of Statistics https://www.abs.gov.au/
2. STATS NZ https://www.stats.govt.nz
3. (2003). Demographic Change and New Zealand's Economic Growth (WP 03/04) https://www.treasury.govt.nz/publications/wp/demographic-change-and-new-zealands-economic-growth-wp-03-04#abstract-01
4. (2024). Analytical note on New Zealand’s demographic trends
5. https://www.treasury.govt.nz/publications/media-advisory/analytical-note-new-zealands-demographic-trends
6. (2013). Population Ageing, Productivity and Policies: A survey with implications for New Zealand (WP 13/21).
7. https://www.treasury.govt.nz/publications/wp/population-ageing-productivity-and-policies-survey-implications-new-zealand-wp-13-21
8. OECD Country Profiles: Australia & New Zealand. https://www.oecd.org
9. University of Auckland News. (2024). How can governments better support migrants? https://www.auckland.ac.nz/en/news/2024/10/15/how-can-governments-better-support-migrants-.html
10. United Nations Department of Economic and Social Affairs (UN DESA). World Population Prospects. https://population.un.org/wpp
11. **Curtin, J.** (2023). Legacies of a Trans-Tasman Relationship: The Evolution of Asymmetry between New Zealand and Australia. In Asymmetric Neighbors and International Relations: Living in the Shadow of Elephants. University of Auckland News

12. Fertility decline in Australia: Is it here to stay? https://population.gov.au/sites/population.gov.au/files/2024-10/Fertility-decline-Australia-2024.pdf
13. Measuring Ethnicity in New Zealand: Developing tools for social analysis
14. https://paa2006.populationassociation.org/papers/60521
15. Infometrics, NZ https://www.infometrics.co.nz/article/2024-06-a-record-low-fertility-rate
16. Female labor force participation, NZ https://www.theglobaleconomy.com/New-Zealand/Female_labor_force_participation/
17. www.macrotrends.net
18. Australians cash in on the shortage of electricians, Financial Times
19. https://www.ft.com/content/0bef16b6-f8ab-48e6-9978-6c496ff2f19f
20. The mining boom: Impacts and prospects, Grattan Institute
21. https://grattan.edu.au/wp-content/uploads/2013/07/194-mining-boom-impacts-and-prospects.pdf