

# New Zealand retirement income policies and how they compare within the OECD

## SUMMARY

The Retirement Commissioner is tasked with monitoring the effects of retirement income policies. To facilitate assessing the effectiveness of retirement income policies in New Zealand it is useful to compare their institutional structure and performance to retirement income systems in other OECD countries.

## KEY POINTS

- The framework of pension “pillars” or “tiers” is a useful and widely-used descriptor but in practice, each pension system has evolved over time due to specific preferences or events, and pension systems are not as ordered or uniform as the framework suggests.
- New Zealand compares well with other OECD countries on pension coverage, replacement rates and pension wealth for low earners and elderly poverty rates. This is achieved despite not having a second pillar, unlike the majority of OECD countries.
- Pension reforms in OECD countries (including New Zealand) over the last 50 years have trended towards transferring risk from the state to the individual. New Zealand has one example of this, KiwiSaver, where the individual bears a lot of risk. However, it also has one example of the state bearing almost all of the risk, in NZ Super.

## MAIN MESSAGE

NZ Super performs well against OECD indicators and is highly effective in preventing elderly poverty. A major future risk to the performance of New Zealand’s pension system is that the purchasing power of NZ Super would decline.



## Executive summary

In terms of coverage, replacement rates, pension wealth or elderly poverty rates, New Zealand retirement income policies compare well with other OECD countries, despite using a different set of institutional settings than what is most common across the OECD.

NZ Super is highly effective in preventing elderly poverty. Its independence from the individual's employment history has protected New Zealand from the challenge to pension systems, arising from the increase in non-standard work and fragmented work histories, faced by many other OECD countries (OECD 2019). This independence from employment history also protects New Zealanders who have spent periods outside the workforce, for example, because of care obligations.

The good performance of the New Zealand pension system against OECD indicators is a result of the rate and unconditionality of NZ Super. A major future risk to the performance of New Zealand's pension system is that the purchasing power of NZ Super would decline. This could happen in several ways. Declining mortgage-free home ownership among retirees combined with high accommodation costs is one scenario, as is an increase in costs of living that disproportionately affect older people (such as out-of-pocket healthcare expenses).

Pension reforms in OECD countries (including New Zealand) over the last 50 years have trended towards transferring risk from the state to the individual, in response to concerns about fiscal sustainability of traditional, defined benefit retirement income systems. Overall, more longevity risk, labour market risk, financial market risk and macroeconomic risk is now borne by individuals. However, many countries introduced safeguards to stop short of a full transfer of the risk to the individual.

In New Zealand, KiwiSaver is far on the individual-risk side of the risk spectrum, whereas NZ Super is on the far end of the state-risk side. If KiwiSaver, with its current settings, became a necessary component of retirement income, the transfer of risk from the state to the individual would be more far-reaching than in many other countries. The impact of the COVID-19 crisis on retirement income settings is not yet clear.



# The typologies of retirement income systems

A pension system redistributes resources between income groups and across the lifetime of individuals. The aim of this redistribution could be to compensate for market inequalities, to insure against specific risks, or to support individual accumulation for retirement (Arza 2006). Retirement income systems differ in how much they emphasise each of these functions, and what means they use to achieve their aims. This section will briefly summarise how retirement income systems and their components can be classified to provide context for the discussion of New Zealand's pension arrangements compared to those of other OECD countries.<sup>1</sup>

## PILLARS AND TIERS

The World Bank (1994) popularised the concept of three pillars, proposing that a multi-pillar system helps diversify risk and clarifies the distinction between redistribution, poverty prevention and income replacement. The pillars are as follows:

- 1 a mandatory, publicly managed, PAYGO<sup>2</sup> pillar to ensure the minimum level of benefits (e.g., NZ Super)
- 2 a mandatory, individually funded, privately governed pillar (SAYGO - occupational pensions or private savings) and
- 3 a voluntary, individually funded, privately governed retirement savings scheme (e.g., KiwiSaver<sup>3</sup>).

In 2005, the World Bank added two new pillars: other assets (financial and non-financial, such as property) and family support.

While the metaphor of pillars suggests orderly, equally important, and indispensable components, in practice, pillars tend to be uneven in their scope and importance, and often overlap (or are missing). Each pension system has evolved over time due to specific historical/cultural preferences or events, and pension systems are not as neat as the framework suggests, although the framework is a useful and widely used descriptor.

In 1998, OECD proposed an alternative typology which uses the term “tiers” to classify the components of a retirement income system by the objectives they aim to achieve. Tier 1 aims to protect from old-age poverty, tier 2 aims to ensure the adequacy of retirement income and tier 3 aims to raise the individual income replacement rate.<sup>4</sup> (In this typology, KiwiSaver is in the third tier because its purpose as stated in KiwiSaver Act 2006 is to raise the individual income replacement rate: “The purpose of this Act is to encourage a long-term savings habit and asset accumulation by individuals who are not in a position to enjoy standards of living in retirement similar to those in pre-retirement.”)

It is worth noting that types of benefits are not linked to tiers. Each of the goals of the three tiers of a retirement income system can be achieved by a range of benefit types (Figure 1). Even when countries have similar types of schemes, there can be differences in how important these schemes are for retirement income. For example, mandatory private pensions exist in 11 OECD countries, but income replacement rates from these schemes range from 6% in Norway to over 50% in Denmark and Iceland (OECD 2019).

1 The Beveridgean/Bismarckian classification is not discussed here because, arguably, the extent of reform made the historical distinction between Bismarckian and Beveridgean systems less useful than it was in the past. The difference between these two types of pension systems is described in Appendix 1.

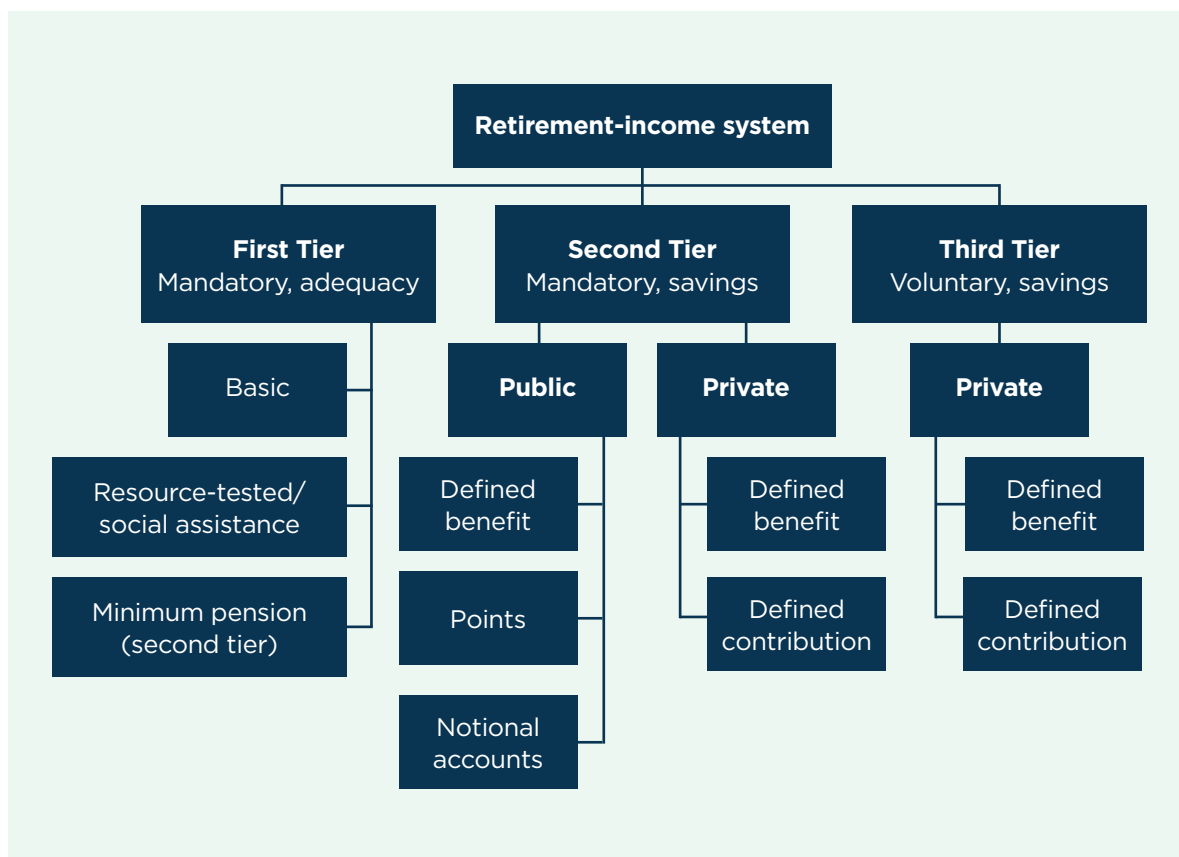
2 Pay-as-you-go (PAYGO) means that pensions are paid from current tax revenue. Funded pensions (Save-as you go or SAYGO) are paid from accumulated contributions of the members of the pension fund.

3 Second and third tiers may have government involvement in the form of subsidies or regulations, but they are distinguished by being mandatory (second pillar) or voluntary (third pillar).

4 In many pension systems, there is a lot of overlap between the pillars as defined by World Bank and tiers as defined by OECD: Tier 1 is usually a compulsory, non-contributory scheme governed by the state, tier 2 - compulsory retirement plans and tier 3 - voluntary retirement plans. The term “tier” is also sometimes used to describe the type of pension benefit (e.g., targeted, minimum, flat-rate, earnings-related etc.) (Jochem 2007).



**Figure 1. Tiers and types of benefits (OECD, Pensions at a Glance 2017).**



**HOW MONEY IS REDISTRIBUTED WITHIN A RETIREMENT INCOME SYSTEM**

There are different bases for pension entitlement: citizenship, individual contribution (for example, earnings), collective contribution (for example, occupational status) and need (Table 1). Each of these bases is linked to a way of calculating the benefit; for example, citizenship as the basis for entitlement is linked to a universal, flat-rate benefit (Table 2). However, the extent to which each of these ways of calculating the benefit is redistributive depends on the rules. An earnings-related system can be more redistributive than a flat-rate universal benefit depending on what factors are included in the calculation. It is worth noting that full equivalence between contributions made and pension benefits is rare, even in systems where entitlements are tightly linked to individual contributions.



**Table 1. Distributional principles (Arza 2006)**

Distributional principle	Unalienable right for all	An individual achievement	A collective achievement	A safety net against poverty
Underlying principle of economic inclusion	Citizenship or residency <sup>5</sup>	Employment	Status	Need
Institutional arrangement	Universal benefit	Contribution-based pension	Status-based pension (e.g., occupational)	Means-tested benefit

**Table 2. Models of distribution (Arza 2006)**

Model of distribution	Flat-rate	Actuarial	Earnings-related	Residual
Implementation	Benefit level is set at the same level for all	Benefits exactly reflect the present value of aggregate contributions made by each individual	Defined-benefit, calculated based on earnings and time in workforce and other factors	Means-tested
Association with income / contributions paid	No link	Equivalence; a market rate of return on accumulated contributions	Link but not full equivalence; mediated by pension settings that often include factors other than earnings	No link to past income; negatively associated to the level of income (or assets) that the individual has available upon retirement
Distributional potential	Strong - low-income groups obtain upon retirement more than they have contributed, while high income groups receive less		Rates of return to contributions may be high or low depending on the statutory rules of the system	Some, but the low rates of benefits and strict targeting limit the distributional impact

<sup>5</sup> In New Zealand, eligibility for NZ Super does not require citizenship; permanent residents also qualify if they fulfil residency requirements (which also apply to citizens).



## HOW RISK IS REDISTRIBUTED IN A RETIREMENT INCOME SYSTEM

Retirement income systems not only redistribute funds but also pool risks. These risks include individual risks such as longevity, interruptions to working life, persistent poverty, and other factors that may result in inadequate private savings, and macroeconomic risks such as inflation or poor financial market performance.

There are three types of risk pooling in retirement income systems (Table 3):

- Defined benefit (DB) schemes have fixed benefits. Contribution rates (or taxes) are adjusted as needed. DB systems can be PAYGO (funded from current taxes or contributions) or individually funded. The risks are pooled between beneficiaries of the scheme. Risk is covered by all contributors to the scheme (taxpayers, workers, state, pension providers) in the form of higher taxes / contributions.
- Defined contribution (DC) schemes have fixed contribution rates. Benefits fluctuate, reflecting individually accumulated resources and investment returns. In DC schemes, individuals bear most of the risks mentioned above. However, many DC schemes have mechanisms where risk is shared among a cohort, or between the account holder and the provider (such as when there is a guarantee of a minimum income) (OECD 2020). To further reduce individual risk, all OECD countries regulate private fund providers and some also apply restrictions on investment strategies or fund switching. For example, in Chile an individual cannot invest in the most aggressive fund from 10 years before retirement, and Estonia allows up to 3 fund switches a year. Financial advice or fund advertising may also be regulated, and some governments have dedicated agencies to ensure low-cost access to accurate information (in New Zealand – Te Ara Ahunga Ora Retirement Commission).
- Notional defined contribution (NDC) schemes (adopted by Italy, Sweden, Latvia, Poland, among others) aim to mimic DC schemes in that the annual benefit is calculated based on aggregate contributions and a rate of return (which can be based on factors such as GDP growth or wage growth). However, PAYGO financing is retained, protecting individuals from market risks to a greater degree than in a DC market-based scheme, and rules of calculating the benefit often pool longevity risk (e.g., the benefit is calculated based on cohort life expectancy).

**Table 3. Types of risk pooling (Arza 2006)**

Type of risk	Defined benefit (DB)	Defined contribution (DC)	Notional defined contribution (NDC)
Inadequate individual savings	Compulsory membership		
Persistent poverty	Minimum benefit independent of contributions (risk-pooling across all taxpayers)		
Longevity	Broad pooling	Longevity risk may be pooled if the accumulated savings are converted into an annuity based on cohort life expectancy	Longevity risk may be pooled if the accumulated savings are converted into an annuity based on cohort life expectancy
Macro-and microeconomic risks, e.g., labour market risks (unemployment, low wages, short or interrupted working life), low economic growth, high inflation, poor financial market performance	Universal DB: broad intra- and inter-generational risk-pooling; If conditional then the pooling of risks is 'narrowed' and restricted to the group in question	No risk-pooling (in some schemes the government covers the contributions when working life is interrupted due to parenthood or illness)	Financial market risk is pooled, other risks like DC schemes
Who covers the risk? <sup>6</sup>	Contributors to the system (workers, taxpayers, employers, shareholders, depending on settings)	The individual, in the form of lower pension benefits	The financial risk and part of the demographic risk is borne by the taxpayers/state (PAYGO financing); other risks are borne by the individual in the form of lower pension benefits

<sup>6</sup> It is worth noting that many individual-level risks can be mitigated, to a greater or lesser extent, by the availability and cost of public services such as health or transport which may reduce the amount of income needed to achieve wellbeing in retirement.



# Overview of pension arrangements in OECD countries

## NON-CONTRIBUTORY FIRST TIER BENEFITS

The importance of first-tier (poverty prevention) benefits varies enormously across OECD countries (OECD 2019). Nonetheless, all OECD countries have a social safety net for the elderly, in the form of targeted social assistance or a minimum pension benefit (OECD 2019). Relief from income tax for public pensions, either full or partial, is available in 14 OECD countries, and 28 OECD countries have some concessions for older people or pension income under their personal income taxes. In only eight countries is the tax treatment of pensions and pensioners at least the same as it is for people of working age (OECD 2019). In New Zealand, the lack of tax relief does not disadvantage pensioners because there are no social security contributions towards pensions, which are a substantial part of the income tax in many of the countries where tax relief for pensioners exists.

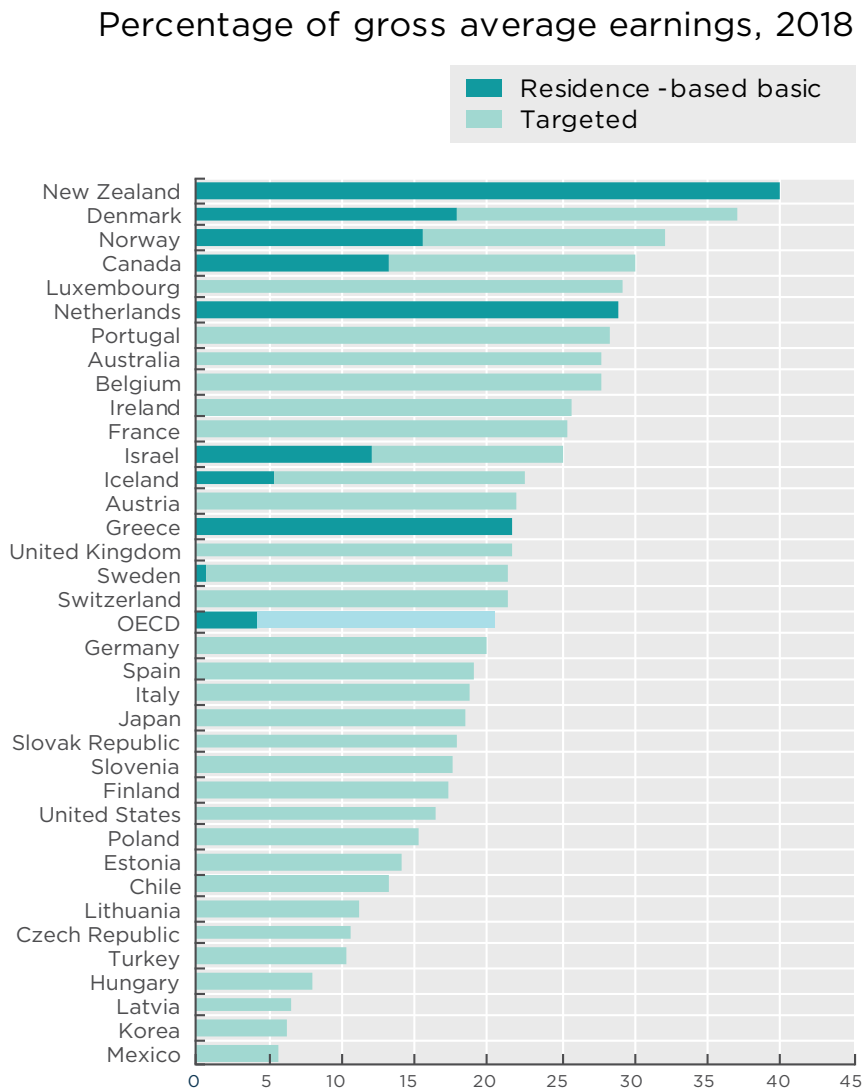
Seven OECD countries, including New Zealand, have a residence-based basic pension for future retirees (although Norway and Sweden are replacing theirs with targeted schemes that involve a means test; OECD 2019). Some countries have contribution-based basic pensions where eligibility depends on having contributed to the system, and these schemes tend to have very high coverage not dissimilar from residence-based pensions (OECD 2019).

New Zealand has the highest non-contributory, residence-based benefit out of the nine OECD countries that have such a benefit, and the highest basic pension overall (Figure 2). However, because New Zealand does not have a second-tier benefit, this basic benefit (NZ Super) plays a role that in other countries is fulfilled by first-tier (poverty prevention) and second-tier (income adequacy) benefits combined.



**Figure 2. Basic pensions as a percentage of gross average earnings by country.**

Source: OECD Stat [doi.org/10.1787/888934041250](https://doi.org/10.1787/888934041250)





## SECOND- AND THIRD-TIER BENEFITS

Ireland and New Zealand are the only OECD countries which do not have a second-tier pension, with the United Kingdom also phasing it out. In the other countries, there are four kinds of second-tier scheme:

- 17 OECD countries have public PAYGO schemes with defined benefit (DB) rules for future retirees. (In another 10 countries, such schemes apply to current retirees but have been replaced due to financial sustainability issues). 3 countries (Iceland, the Netherlands and Switzerland) have private occupational DB schemes that are mandatory<sup>7</sup> or quasi-mandatory.<sup>8</sup>
- 9 OECD countries have mandatory, funded, defined contribution (DC) plans where contributions flow into an individual account. The accumulation of contributions and investment returns is usually converted into a monthly pension at retirement.
- 5 OECD countries have notional defined contribution (NDC) schemes (Italy, Latvia, Norway, Poland, and Sweden). These are PAYGO public schemes with individual accounts that apply a notional rate of return to contributions made, mimicking funded DC plans. At retirement, the accumulated notional capital is converted into a monthly pension using a formula based on life expectancy.
- 5 OECD countries have points schemes (France, Estonia, Germany, Lithuania, and Slovakia). Workers earn pension points based on their earnings and, at retirement, the sum of pension points is multiplied by a pension-point value to convert them into a regular pension payment (OECD 2019).

The extent to which the state (as opposed to the individual) funds second-tier pensions varies. Many of these second-tier pensions in other countries affect the rate of NZ Super if their recipient, who may be an immigrant or a New Zealander who spent most of their working life overseas, also receives NZ Super.<sup>9</sup> This raises questions about equal treatment, especially in cases where a large proportion of contributions to the overseas second-tier pension came from individual contributions, rather than from the state.

The parameters used to calculate benefits in second-tier schemes vary by country and may include a measure of earnings (such as final salaries) as well as more complicated parameters which may make the system challenging to understand for laypeople (e.g., valorisation rates,<sup>10</sup> accrual rates, indexation etc.) NZ Super is often praised for the simplicity of its universal flat rate. However, the lack of second-tier benefits means that for higher earners, less of their pre-retirement income is replaced than in countries that have second-tier benefits (see “Income replacement rate” section below).

Third-tier, voluntary private pensions are important in Belgium, Canada, Germany, Ireland, New Zealand, the United Kingdom, and the United States. Italy, New Zealand, Turkey, and the United Kingdom use automatic enrolment with an opt-out option. Some of these schemes, including New Zealand’s KiwiSaver, have achieved high coverage rates. However, enrolment in a pension plan does not always equal paying contributions to the plan, and in some countries the difference between individuals covered by a plan and individuals contributing to a plan can be substantial (OECD 2019). This includes New Zealand, where over 40% of KiwiSaver members were not contributing as of end of 2020. However, there is no data on how many of these non-contributors stopped contributions for a short time, such as being between jobs, as opposed to long-term non-contribution which can have a substantial impact on balances at retirement (FMA 2020).

<sup>7</sup> “Mandatory” does not always equal 100% coverage, and in practice many of these schemes have gaps. For example, in some mandatory schemes the contribution is deducted from taxes so people who are not paying taxes are not included. This paper follows OECD practice in calling such schemes mandatory.

<sup>8</sup> Quasi-mandatory pension schemes are industry-wide or nationwide collective bargaining agreements that employees must join. These systems cannot be classified as mandatory because not all workers are covered by such agreements, but in practice the coverage is close to the one in countries with mandatory systems. (OECD 2019)

<sup>9</sup> [www.govt.nz/browse/tax-benefits-and-finance/new-zealand-superannuation-and-the-veterans-pension/nz-superannuation-veterans-pension-and-overseas-pensions/](http://www.govt.nz/browse/tax-benefits-and-finance/new-zealand-superannuation-and-the-veterans-pension/nz-superannuation-veterans-pension-and-overseas-pensions/)

<sup>10</sup> The adjustment of past earnings to account for changes in living standards

## PUBLIC PENSION RESERVE FUNDS

Sovereign and Public Pension Reserve Funds (SPFs) are funds set up by governments with the objective of contributing to finance PAYGO pension plans. There are two types of SPFs:

- 1) Funds that are a part of the overall social security system, where the inflows are surpluses of employee and/or employer contributions over current payouts, as well as top-up contributions from the government via fiscal transfers and other sources (examples: Denmark's Social Security Fund, Japan's Government Pension Investment Fund, and USA's Social Security Trust Fund).
- 2) Funds under autonomous management entities established directly by the government (completely separated from the social security system), whose financial inflows are from direct fiscal transfers from the government. Such funds have been set up by governments to meet future deficits of the social security system, and some are not allowed to make any payouts for decades (examples: Australia Future Fund, the New Zealand Superannuation Fund, the Norwegian Government Pension Fund, and the French "Fond de Réserve pour les Retraites").

By the end of 2018, the total amount of assets in SPFs was equivalent to USD 6.0 trillion for the 17 OECD countries for which data is available (OECD 2019). In New Zealand, the value of the NZ Super Fund portfolio was NZ\$44.8 billion as of end of 2020 and, on current Treasury projections, capital withdrawals from the New Zealand Super Fund will be meeting 10% of the net cost of NZ Super by 2066, peaking at 12.8% in 2078, and averaging 11.2% for 50 years 2060-2110.<sup>11</sup>

## Pension reform

### THE TRANSFER OF RISK BY A TIGHTER LINK BETWEEN PENSION BENEFITS AND EARNINGS

For most of the second half of the 20th century, pension systems in the OECD, including New Zealand, were typically PAYGO DB schemes where pension benefits either depended on the number of years of contributions, accrual rates and individual earnings, or had a flat rate. At the time, population growth and economic growth were high, resulting in good internal rates of return of PAYGO systems. In countries where occupational, funded pensions developed in addition to PAYGO schemes, these schemes were also usually DB (except for Denmark and Switzerland).

Towards the end of the 20th century, the increase in life expectancy increased the average number of years for which a pension is paid, and changed the ratio of contributors to pensioners.<sup>12</sup> Falling fertility rates further reduced the ratio of contributors to pensioners. Increased international labour mobility introduced more uncertainty to forecasts. At the same time, falling interest rates and bond yields have increased the cost of generating an income from a given pension pot (OECD 2017). Combined, these factors have increased the cost of pensions and raised questions about their fiscal sustainability.

As a result of these pressures, all OECD countries, including New Zealand, made changes to their pension rules over the last 50 years, but because direct cuts to benefits could be politically damaging, such cuts have been rare, and reform was in most cases gradual. Nonetheless, a move from a PAYGO system towards building up a funded component involves high transition costs, because current pensions within the PAYGO scheme need to be paid at the same time as accumulating new entitlements through savings in the funded component (OECD 2019).

<sup>11</sup> [nzsuperfund.nz/assets/documents/publications/Annual-Report-2020-/Guardians-Annual-Report-2020.pdf](https://nzsuperfund.nz/assets/documents/publications/Annual-Report-2020-/Guardians-Annual-Report-2020.pdf)

<sup>12</sup> Life expectancy at the age of 60 has increased from 18.0 to 23.4 years in the OECD since 1970. By 2050, the average life expectancy at the age of 60 is expected to rise to 27.9 years. Assuming no further change in mortality rates, and if retirement ages remain at the same level, more time will be spent in retirement and, with unchanged benefits, pension expenditure will rise. In addition, larger cohorts are entering retirement, with the labour market exit of the baby boom generation and fewer people contributing due to the low fertility rates (OECD 2017).

The common direction of reforms was to shift more of the risks to the individual by a tighter link between pension benefits and earnings (OECD 2019). Countries typically moved from a DB to a DC system and/or adjusted the parameters of existing systems, e.g., moving from final salaries to average salaries in the calculation of the pension benefit (Whitehouse et al. 2009, Arza 2006).<sup>13</sup> Another common theme was the separation of poverty prevention and income replacement into two distinct layers of the system. The poverty prevention tier shifted towards means testing, and the income-replacement tier shifted towards contribution-based models with DC benefits (Table 4). This is often described as “individualisation” of pension policy (Arza 2006).

**Table 4. Trends in models of distribution of pensions (Arza 2006).**

Layer (tier)	Before reform	Reform trend
Poverty prevention	Citizenship or residency	Employment
Institutional arrangement	Universal benefit	Contribution-based pension

In New Zealand, as a result of reforms, the expenditure on public pensions as a percentage of GDP reduced from 8 percent in the early 1980s to just over 5 percent by the late 1990s<sup>14</sup> (Preston 2008). However, some of these reforms were later reversed (for example, the tax surcharge), and New Zealand retains a generous compared to other OECD countries, non-contributory, PAYGO, DB pension - NZ Super. The introduction of KiwiSaver in 2007 added a (voluntary) DC component alongside the existing (universal) DB NZ Super. This addition reflects the trend towards having separate poverty prevention and income replacement layers, but the introduction of KiwiSaver was not linked to any changes in NZ Super.

In effect, rather than to shift some of the pension risk onto the individual, as many pension systems have done, New Zealand ended up with a split risk distribution. KiwiSaver is close to the individual-risk-bearing extreme on the risk spectrum. KiwiSaver is not mandatory, so the risk of insufficient savings falls on the individual, and it is not guaranteed by the government or the private provider. The individual, after gaining access to their KiwiSaver at 65, has full discretion over the funds. They could spend the lump sum, bank the funds, maintain a KiwiSaver balance, or invest in alternative financial products, including those with higher risk. There is no mandatory or recommended annuity product. At the same time, NZ Super remains on the state-risk-bearing extreme of the risk spectrum, and is generous compared to other basic pensions.

<sup>13</sup> For example, Chile (in 1981) and Mexico (in 1997) replaced their public PAYGO DB schemes with private funded mandatory DC schemes. Estonia, Hungary, Poland, the Slovak Republic and Sweden, introduced mandatory private funded DC schemes as a complement to their public pension schemes or raised the contribution rates that fund them. In the Netherlands, consecutive adjustments of pension rules have rendered the funded DB scheme more of a hybrid DB-DC system (OECD 2019). Some countries have also tightened the link between earnings and benefits within their PAYGO DB schemes by using points systems (Estonia, Lithuania and the Slovak Republic). Another approach was to link the benefits to the financial balance of the pension system or demographic ratios (Estonia, Germany, Japan, Lithuania, Luxembourg, the Netherlands, Spain and Sweden) (OECD 2019).

<sup>14</sup> These reforms included, among others, changing the indexation of NZ Super and gradually lifting the age of eligibility to 65. Another reform aiming to reduce the cost of NZ Super was the taxation surcharge, which was hugely unpopular, and later reversed. A detailed history of changes to the New Zealand retirement income system can be found in Preston 2008.



## CHANGES TO RETIREMENT AGE

Apart from the move from DB to DC benefits, another approach to dealing with the consequences of the increase in longevity has been to increase the retirement age. The retirement age is defined here as the age at which the individual can receive full benefits<sup>15</sup> (several countries allow pensioners to receive benefits early, with a penalty). Some countries raised the retirement age according to a predetermined schedule, while others linked retirement ages to life expectancy.<sup>16</sup> As of 2018 the average retirement age across the OECD was 63.5 years for women and 64.2 years for men (OECD 2019).

Changes to the retirement age have been politically difficult, for a couple of reasons. First, there is no objective way to determine that old age “happened” for someone, unlike other factors such as illness or accident (Arza 2006). Second, socio-economic differences in life expectancy raise equity issues: those with higher incomes who live longer will benefit from pensions for a longer time, which is financed in part by those who die early. This regressive distributional effect increases as retirement age increases.

## REFORM BACKTRACKING AND MOST RECENT REFORM TRENDS

Since 2015, political pressures and a favourable economic environment contributed to the backtracking of many of the earlier pension reforms. For example, Italy, the Netherlands, the Slovak Republic, and Spain altered automatic adjustments to life expectancy. Canada and the Czech Republic decided to no longer increase the pension age beyond 65 and Poland reversed the planned increase to 67 (OECD 2019). Overall, most pension reforms after 2017 focused on loosening age requirements to receive a pension, increasing pension benefits including first-tier pensions, expanding pension coverage, or encouraging private savings (OECD 2019).

## THE POTENTIAL IMPACT OF THE COVID-19 CRISIS ON FUTURE PENSION REFORM

The COVID-19 crisis affected pension systems in several ways. Increased early withdrawals from funded pension plans and a lower capability to contribute to retirement savings raised concerns about the adequacy of future retirement incomes (OECD 2020a). In some countries, where calculation of the benefit rate is linked to labour market conditions at the time of retirement, such as average wages, those who retired during the crisis may face a permanent benefit reduction. In some countries, pension funds have been under political pressure to invest in ways that would contribute to economic recovery, such as investing in local businesses, potentially increasing the risk profile of retirement portfolios (OECD 2020).

Subsequently, strengthening the resilience of retirement savings and pension systems emerged as a prominent topic of pension policy debate (OECD 2020). OECD recommended (OECD 2020a) protecting pension funds from individual withdrawals, and from government interference in investment objectives, and to subsidise contributions where necessary to ensure income adequacy in retirement. There has also been a growing interest in earmarked emergency savings accounts which would use similar mechanisms to retirement savings accounts to prevent withdrawals from retirement savings (OECD 2020a).

<sup>15</sup> In New Zealand, the term “age of eligibility” rather than “retirement age” is often used in relation to NZ Super to convey that receiving NZ Super does not require the recipient to retire (cease paid employment). This paper follows the OECD in using the term “retirement age” for the age of eligibility for full pension benefits regardless of any conditions related to paid employment.

<sup>16</sup> Denmark, Estonia, Finland, Italy, the Netherlands, and Portugal; Italy and the Slovak Republic recently backtracked on those reforms with the Slovak Republic abolishing the link altogether and Italy suspending it for some occupations (OECD 2019).

The impact of COVID-19 on the pension system in New Zealand has been, to date, limited. Only 0.2% of total KiwiSaver assets were withdrawn due to COVID-19-related financial hardship (as of end August 2020) compared to 1.3% in Australia and 2.3% in Iceland (OECD 2020). The strict conditions for allowing withdrawal, combined with a coordinated campaign by Te Ara Ahunga Ora Retirement Commission, FMA and other government and industry actors to make scheme members aware of other options, may have contributed to this low withdrawal rate. NZ Super, as a flat-rate DB PAYGO pension, was not affected by changes in the labour market and the economy. The labour market and the economy were impacted much less than in many other countries: unemployment remained low and GDP growth has recovered well. It remains to be seen if the growth in public debt will raise new debates about the long-term fiscal sustainability of NZ Super, and if the crisis will change people's KiwiSaver behaviours in ways that may call for policy intervention. For example, increased awareness that emergency access to KiwiSaver funds is difficult could increase the opt-out rate.

## Evaluating pension systems

The complexity of pension systems means that there are many dimensions that can be evaluated. For example, Whitehouse et al. (2009) list six criteria against which to evaluate pension systems:

- 1 coverage by both mandatory and voluntary schemes
- 2 adequacy of retirement benefits
- 3 financial sustainability and affordability to taxpayers and contributors
- 4 economic efficiency (minimising distortions on individuals' behaviour)
- 5 administrative efficiency (low cost) and
- 6 security of benefits in the light of different risks and uncertainties.

With the exception of coverage, there are multiple approaches to measuring each of these.

Mercer's Global Pensions Index (Mercer, 2020) evaluates pensions on adequacy, sustainability, and integrity, using a set of questions for each of these sub-indices. Example questions include "What is the proportion of total pension assets invested in growth assets?" and "What proportion of the working age population are members of private pension plans?" Answers are rated from 0 to 10, meaning that some pension arrangements are assumed to be better than others.

In contrast, the OECD does not recommend any set of arrangements as objectively best. Instead, it focuses on how different pension systems address specific challenges, such as preventing pensioner poverty, replacing income, ensuring sustainability of the pension system etc. The biennial "Pensions at a Glance" and "Pensions Outlook" reports show that each of these challenges can be effectively addressed by a variety of pension arrangements.

The next section of this report looks at the place of New Zealand on a range of OECD indicators.



# How does New Zealand's retirement income system compare?

**Table 5. Assessment of New Zealand's retirement income system against OECD indicators.**

OECD indicator	Description	Assessment (current state)	Future risks
Coverage	Very high (NZ Super - close to 100% <sup>17</sup> ; KiwiSaver - 80%)	Excellent	The high rate of non-contributing KiwiSaver members is a concern for the future coverage of KiwiSaver-derived retirement income
Income replacement	High for low earners, low for high earners	Excellent from a redistributive point of view but risk of low income replacement for mid- and high earners	KiwiSaver is meant to increase the income replacement rate. The extent to which it can do so depends on amount saved and how much is taken as income until it runs out. There is no longevity insurance to guarantee income can last throughout life
Elder poverty	Low (based on internationally accepted measures)	Very good	Living in owner-occupied homes is an important factor in the current low elderly poverty rate but there is risk of increased elderly poverty rate if home ownership among pensioners decreases.
Elder income inequality	High	Inequality is high, but this is a result of differences in accumulated wealth and ability to work while receiving NZ Super, rather than any differences in pension entitlements	
Pension wealth (the total amount paid to an individual over pension lifetime)	High pension wealth for low earners, relative to other OECD countries	Excellent from a redistributive point of view	
Pension spending as a proportion of GDP	Low	Very good	Everything else being equal, pension spending will increase as New Zealand's population ages

<sup>17</sup> In practice, over 100% of the 65+ resident population because there are recipients living overseas. The proposed New Zealand Superannuation and Retirement Income (Fair Residency) Amendment Bill would raise the residency requirement to 20 years which might result in a (slight) decline in coverage.

## COVERAGE

Combined first-tier benefits have an effective coverage rate of close to 100% because all OECD countries have a social safety net for the elderly, in the form of targeted social assistance, or a minimum pension benefit.<sup>18</sup> Contribution-based basic pensions also have very high recipient numbers in most countries that have such a scheme (OECD 2019).

The issue of pension coverage is most often discussed in relation to second- and third-tier benefits, which are linked to having contributed to the scheme, or to employment status. In many such schemes, those who spent a long time outside of the workforce (due to care responsibilities, unemployment, illness etc.) and those who worked in non-standard work<sup>19</sup> are at risk of low benefits or no benefits from those tiers. Many countries addressed the needs of “high-risk” groups with special policies that increase risk-pooling, for example, child credits/care credits.

In New Zealand, although the coverage of KiwiSaver is 80%, which is on the high end for voluntary schemes, a substantial proportion of members are not currently contributing (OECD 2019, FMA 2020). KiwiSaver is a young scheme (commenced 2 July 2007) and for most current retirees, income from KiwiSaver is not a substantial part of their retirement income, which means that large differences in retirement income due to non-contribution are not yet visible.

## INCOME REPLACEMENT RATE

The net (or gross) income replacement rate indicates how much of the average net (or gross) pre-retirement income is replaced by pension. The replacement rate may vary depending on the level of pre-retirement earnings. For example, in the case of a flat-rate benefit, those with lower pre-retirement earnings will get more of their income replaced than those with higher pre-retirement earnings.

NZ Super has a high net replacement rate for low earners and is at the lower end of replacement rates for high earners compared to other OECD countries (Figure 4; OECD 2017). New Zealand is among countries with lower net replacement rate for average earners, compared to OECD average, if only NZ Super is considered. The addition of KiwiSaver lifts the net replacement rate close to OECD average (Figure 3). Nevertheless, there is no certainty that KiwiSaver members will convert their KiwiSaver into regular income, rather than spending it all at once<sup>20</sup>.

The replacement rate is one of the measures used for evaluating retirement income adequacy (OECD 2017). However, it is not a perfect measure of pensioners’ ability to maintain a standard of living because of differences between countries in the availability and cost of other services used by pensioners, such as public transport, healthcare system, access to subsidised housing etc. These differences mean that the same replacement rate may result in different actual standards of living across countries.

For average earners, the net replacement rate from mandatory pension schemes averages 63% across the OECD, which is 10 percentage points higher than the average gross replacement rate<sup>21</sup>. For low earners (earning less than half of average earnings), the average net replacement rate across OECD countries is 73%, and for high earners (earning over 1.5 of average earnings), 59% (OECD 2017).

<sup>18</sup> In New Zealand, the coverage of NZ Super/Veteran’s Pension for 65+ is 102%, reflecting that some people living overseas and some people under 65 are also receiving it.

<sup>19</sup> Non-standard work is an umbrella term referring to a wide range of work arrangements other than long-term, open-ended employment. Non-standard workers can be independent contractors, self-employed workers, part-time employees, workers on temporary contracts, casual workers, platform workers and other workers who are not in “standard” employment, i.e., working full-time and on open-ended contracts for a single employer (OECD, 2019).

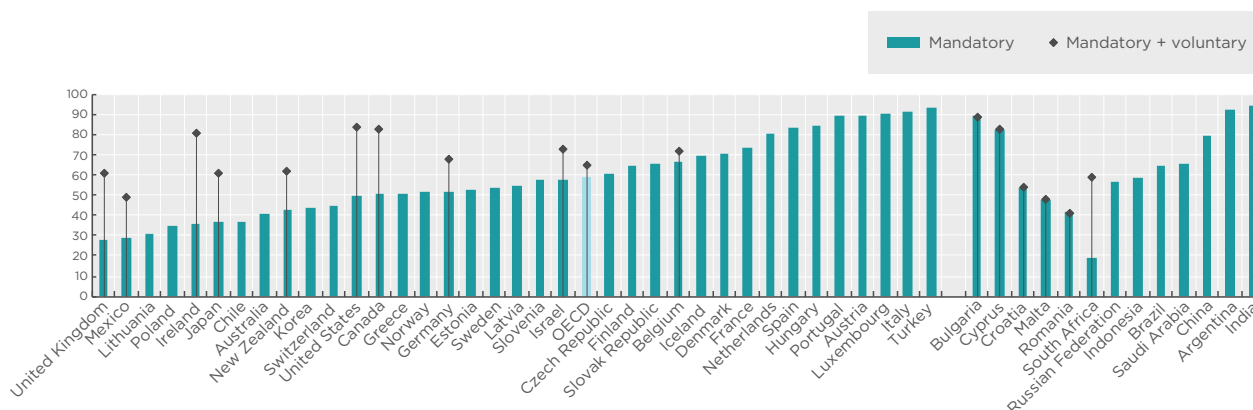
<sup>20</sup> For a discussion of the annuities market in New Zealand, see <http://docs.business.auckland.ac.nz/Doc/The-annuities-market-in-New-Zealand-prepared-for-the-Ministry-of-Economic-Development.pdf>

<sup>21</sup> This difference between net and gross replacement rate reflects the higher effective tax and social contribution rates that people pay on their earnings than on their pensions in retirement.



**Figure 3. Future net replacement rates for full-career average-wage workers.**

Source: OECD Stat [doi.org/10.1787/888934040718](https://doi.org/10.1787/888934040718)



**Figure 4. Net pension replacement rates by earnings.**

Source: [dx.doi.org/10.1787/888933634002](https://dx.doi.org/10.1787/888933634002)

4.8. Net pension replacement rates by earnings

	Individual earnings, multiple of mean for men (women where different)			Individual earnings, multiple of mean for men (women where different)				
	Pension ag	0.5	1	1.5	Pension ag	0.5	1	1.5
<b>OECD members</b>								
Australia	67	95.0(91.8)	42.6(38.8)	45.4(41.4)				
Austria	65	92.2	91.8	90.9				
Belgium	65	62.6	66.1	50.1				
Canada	65	62.2	53.4	38.5				
Chile	65	48.3(45.6)	40.1(36.3)	40.6(36.7)				
Czech Republic	65	88.3	60.0	48.7				
Denmark	74	110.3	80.2	76.2				
Estonia	65	73.7	57.4	51.1				
Finland	68	66.9	65.0	65.1				
France	64	70.4	74.5	70.3				
Germany	65	54.7	50.5	49.8				
Greece	62	60.7	53.7	54.1				
Hungary	65	89.6	89.6	89.6				
Iceland	67	85.5	75.7	77.8				
Ireland	68	70.0	42.3	32.4				
Israel	67(64)	100.4(91.9)	75.1(67.4)	54.9(49.3)				
Italy	71	93.0	93.2	93.8				
Japan	65	52.6	40.0	35.3				
Korea	65	63.8	45.1	33.7				
Latvia	65	55.7	59.5	59.0				
Luxembourg	60	98.3	88.4	83.6				
Mexico	65	35.1	29.6(27.7)	29.3(27.5)				
Netherlands	71	105.1	100.6	100.2				
<b>OECD members (cont.)</b>								
New Zealand	65	80.7	43.2	30.5				
Norway	67	64.8	48.8	41.3				
Poland	65(60)	37.2(35.3)	38.6(34.1)	37.9(33.8)				
Portugal	68	92.9	94.9	93.1				
Slovak Republic	68	85.0	83.8	83.5				
Slovenia	60	57.3(60.3)	56.7(59.2)	54.1(56.6)				
Spain	65	79.3	81.8	81.7				
Sweden	65	62.4	54.9	67.6				
Switzerland	65(64)	57.4(56.8)	44.9(44.5)	31.5(31.2)				
Turkey	61(59)	99.1(95.0)	102.1(97.9)	105.8(101.4)				
United Kingdom	68	52.1	29.0	20.7				
United States	67	59.9	49.1	42.4				
<b>OECD</b>	<b>65.8(65.5)</b>	<b>73.2(72.7)</b>	<b>62.9(62.2)</b>	<b>58.9(58.2)</b>				
Argentina	65(60)	98.9(90.3)	91.0(83.1)	89.3(81.3)				
Brazil	55(50)	92.4	76.4(58.1)	76.4(58.1)				
China	60(55)	104.4(89.7)	83.0(71.3)	77.0(66.3)				
India	58	99.3(94.4)	99.3(94.4)	99.3(94.4)				
Indonesia	65	65.4(60.8)	65.5(60.9)	66.1(61.6)				
Russian Federation	60(55)	53.0(47.2)	38.8(32.9)	33.5(27.7)				
Saudi Arabia	45	65.4	65.4	65.4				
South Africa	60	32.1	17.1	11.9				
EU28	65.9(65.5)	79.7(79.6)	70.6(70.4)	66.8(66.6)				

Source: OECD pension models.

20 For a discussion of the annuities market in New Zealand, see [docs.business.auckland.ac.nz/Doc/The-annuities-market-in-New-Zealand-prepared-for-the-Ministry-of-Economic-Development.pdf](https://docs.business.auckland.ac.nz/Doc/The-annuities-market-in-New-Zealand-prepared-for-the-Ministry-of-Economic-Development.pdf)

21 This difference between net and gross replacement rate reflects the higher effective tax and social contribution rates that people pay on their earnings than on their pensions in retirement.



## PENSION WEALTH

Pension wealth can be thought of as the lump-sum needed at the retirement age to buy an annuity that would give the same flow of pension payments as that promised by mandatory retirement-income schemes (OECD 2019). Net pension wealth relative to individual net earnings measures the total discounted value of the lifetime flow of all retirement incomes in mandatory pension schemes at retirement age. New Zealand is among the countries with highest net pension wealth for lower earners and slightly below OECD average for average earners (Figure 6).

**Figure 5.**

Source: OECD pension models. doi.org/10.1787/888934041706 and doi.org/10.1787/888934041725

Figure 5.8. Net pension wealth for lower earners by gender, multiple of annual earnings

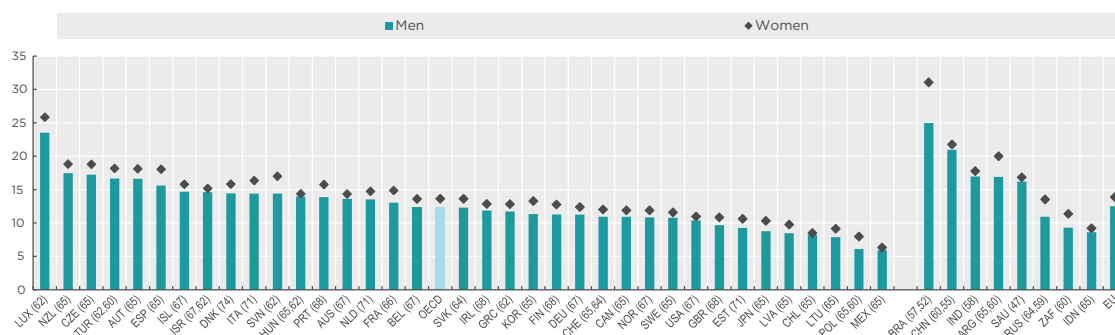
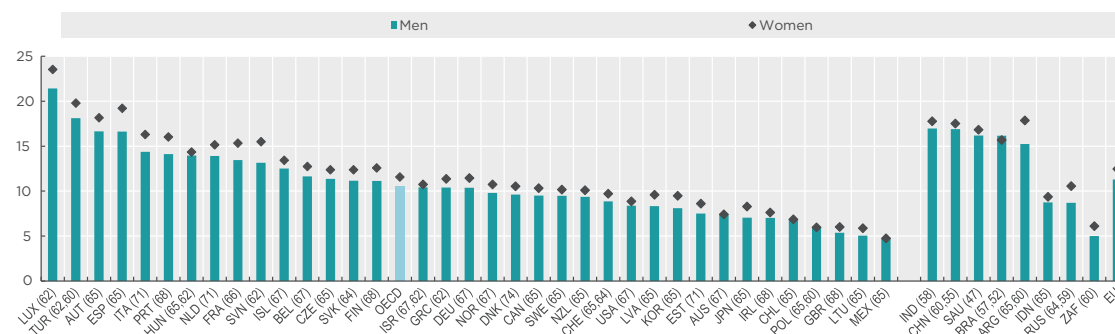


Figure 5.9. Net pension wealth for average earners by gender, multiple of annual earnings



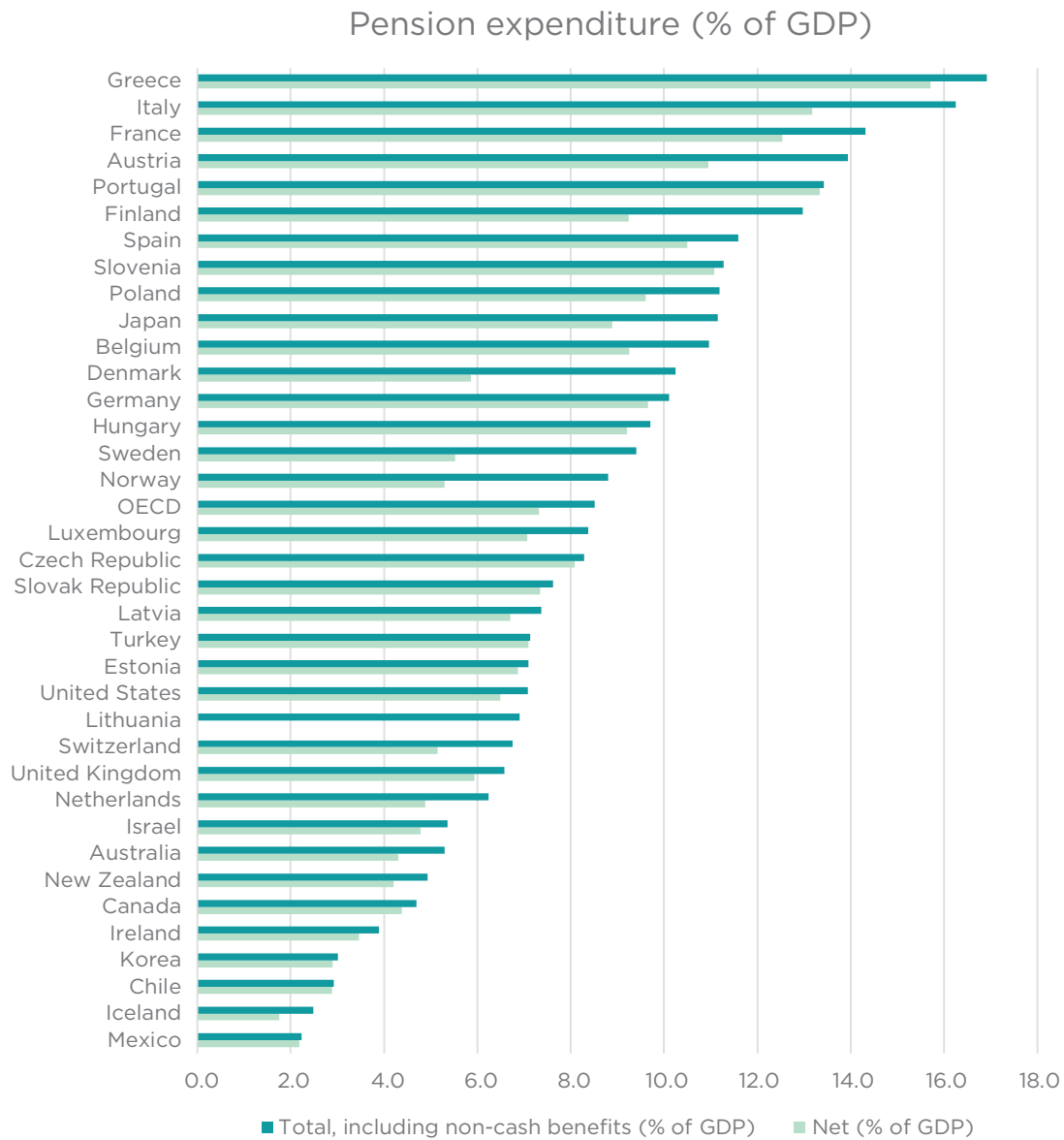
## PENSION SPENDING

New Zealand's pension spending is relatively low compared to other OECD countries due in part to favourable demographics<sup>22</sup> (Figure 6; OECD 2019). Pension expenditure can be measured in terms of cash benefits only, or cash and non-cash benefits. Non-cash benefits include, for example, subsidised housing; in Denmark, Norway and Sweden, non-cash benefits exceed 2% of GDP. Public spending on cash old-age pensions and survivors' benefits in the OECD increased from an average of 6.6% of gross domestic product (GDP) to 8.0% between 2000 and 2015.

<sup>22</sup> The current proportion of 65+ in the population and the ratio of 65+ to workers are lower in New Zealand compared to many other OECD countries.

**Figure 6.**

Source: [doi.org/10.1787/888934042314](https://doi.org/10.1787/888934042314)



22 The current proportion of 65+ in the population and the ratio of 65+ to workers are lower in New Zealand compared to many other OECD countries.



## ELDERLY POVERTY RATES AND GENDER GAP

The average old-age poverty rate across the OECD is 8.7% for men and 13.6% for women. This gender gap is often due to the dependence of entitlements on career length and earnings. In the EU-28, women’s average pensions were 25% lower than the average pension for men in 2015 (OECD 2019).

Elderly poverty rates in New Zealand are below OECD average (OECD 2019). Even so, The Ministry of Social Development [MSD] urges caution when reporting poverty rates for pensioners in New Zealand using a threshold set as a percentage of the median income (OECD uses half the median income). As pensioner incomes tend to concentrate in the 50% to 70% of median range, “a small shift in the median from one year to the next can lead to a large change in reported income poverty for the 65+ even though there has been little or no change in their income or living standards. Similarly, using a 50% of median income threshold gives a quite different picture than when a 60% threshold is used” (Perry 2019).

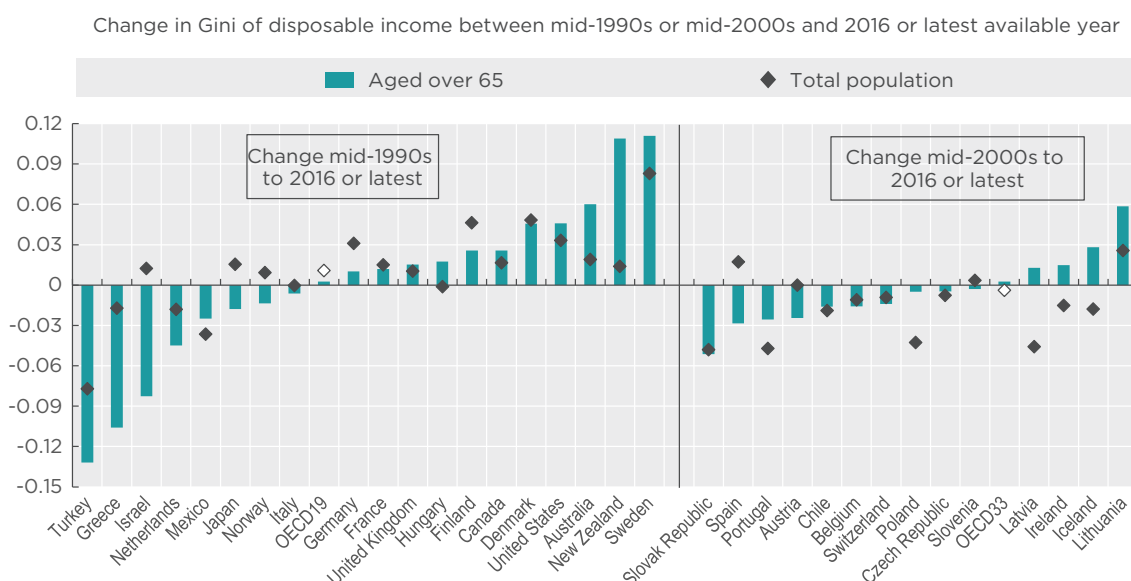
MSD argues that using after housing costs [AHC] incomes is more useful for monitoring poverty trends for older New Zealanders. Using the AHC measure, people aged 65+ in New Zealand have low poverty rates compared to other age groups, and existing poverty among people aged 65+ is concentrated among those who do not own their homes (Perry 2019). Falling home ownership rates may contribute to increasing poverty rates for people aged 65+ in the future. According to Statistics New Zealand, the proportion of people living in their own home was the lowest in 70 years at the time of the 2018 Census<sup>23</sup>.

## INCOME INEQUALITY AMONG PENSIONERS

In New Zealand, income inequality between those aged 65+ has grown since the mid-1990s and this growth was second highest in the OECD (Figure 7, OECD 2019). Much of this income inequality reflects increasing labour force participation among people aged 65+. Those who remain in employment and start receiving NZ Super (as there is no eligibility requirement to cease paid work) will have much higher incomes than those who only receive NZ Super. In other words, this growth in income inequality is not linked to unequal pensions. Rather, it is linked to the unequal opportunities of people aged 65+ in the labour market, different preferences regarding how long to stay in the labour force after 65, and the lack of requirement to cease paid work to receive NZ Super or to gain access to KiwiSaver funds.

**Figure 7. Change in income inequality over time: older vs. total population**

Source: [doi.org/10.1787/888934042238](https://doi.org/10.1787/888934042238)



<sup>23</sup> [stats.govt.nz/news/homeownership-rate-lowest-in-almost-70-years](https://stats.govt.nz/news/homeownership-rate-lowest-in-almost-70-years)

## Conclusion

The New Zealand retirement income policy system performs well when assessed against OECD indicators. The universality and amount of New Zealand Super are effective in preventing elderly poverty and avoid inequalities related to individuals' work histories. Nonetheless, the performance of the New Zealand retirement income system needs to be continuously monitored to effectively address potential issues, such as significant changes to the cost of living. KiwiSaver, unlike New Zealand Super, is linked to individuals' earnings and work histories. Therefore, any changes that increase the role Kiwisaver plays in retirement income present a risk of less equitable outcomes.

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# Appendix 1.

## Bismarckian and Beveridgean systems

The historical distinction between Bismarckian (social insurance) and Beveridgean (multipillar) pension systems (Table 1) is used more often than Esping-Andersen's welfare regime typology which does not map well onto the complexity of pension systems.<sup>24</sup>

Bismarckian systems focus on maintaining income into retirement by a combination of an earnings-related benefit and a means-tested pension. In Beveridgean systems, a flat-rate minimum state pension aims to prevent poverty among the elderly but does not, in most cases, provide adequate income replacement. The gap is filled by private and/or occupational pensions which often get integrated into the state system by regulation (such as compulsion, regulation of providers etc.) and subsidies or tax breaks. This integration results in a "multipillar" system in which the flat-rate state pension is only the "first pillar" of retirement income, the other pillars being compulsory and voluntary pension schemes.

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<sup>24</sup> In this typology, 'social democratic' states provide universal social rights and limit benefit differentiation, 'corporatist- conservative' states make welfare rights dependent on employment, and 'liberal' states provide residual benefits dependent on need. The challenge of applying this typology to retirement income is that usually more than one of Esping-Andersen's welfare regimes can be identified in different components or tiers of the pension system. For example, the universality and non-means-testing of NZ Super reflects the social democratic approach, the extent of benefits from KiwiSaver is strongly linked to employment through employer contributions, and a growing number of superannuitants also receive needs-based, income-tested and means-tested, targeted benefits such as the Accommodation Supplement.



**Table 1. Bismarckian and Beveridgean retirement income systems.**

	Bismark	Beveridge
State pension	A means-tested minimum pension and an earnings-related benefit	A flat-rate minimum state pension sufficient to cover basic needs only
Main purpose of the state pension system	Income maintenance during retirement	Prevention of poverty among the older population
Pension expenditure	A considerable amount of a country's GDP is spent on public pensions	A lower proportion of GDP is spent on public pensions, compared to Bismarckian systems
Private pensions	Private pension provision did not develop to a significant extent, at least until very recently	Limited state pension provision has led to the development of private and/or occupational pensions which have gradually been integrated into the pension system, often on a compulsory or quasi-compulsory basis
Pension financing	PAYGO: current pensions are financed by current contributions	Basic pensions are PAYGO whereas private and occupational pensions are generally fully funded (current contributions are used to finance future benefits)
Sustainability considerations	<p>Pensions are directly dependent on governments' ability to raise such taxes. If the level of taxation (or social insurance contributions) is perceived as being too high by international (and domestic) investors, they may decide to move to another country</p> <p>Pressure from employers and investors to create a funded pension sector so that more capital will be available to finance domestic production</p>	Less reliance on the ability of governments to raise taxes compared to Bismarckian systems because pensions are financed from two different sources: taxation/ contributions and the profits of those industries in which pension funds' assets are invested
population aging	Avoiding a substantial increase in public pension expenditure will require tax increases or benefit cuts (everything else being equal). The anticipation of demographic aging has triggered reform	Increased contributions to funded pensions may be required. Rising life expectancy means smaller annuities for the same capital.
New work patterns (career interruptions, part-time and non-standard employment)	<p>Earnings-related benefits penalise part-time workers or people whose career is punctuated by interruptions. In many countries, this is addressed by contribution credits that are attributed to pension accounts, especially in relation to childbearing, but in some cases also periods of unemployment and sickness.</p>	The basic, flat-rate pension does not discriminate based on employment patterns but typically does not provide sufficient income replacement. Private and occupational pension funds often do not grant contribution credits for career interruptions. The extent to which the state is involved in regulating the pension sector, and takes action to address this issue, varies between countries
The political impact of cost-containment measures	Tax increases or cuts to benefits have the potential to be politically damaging.	Tax increases or cuts to the minimum pension have the potential to be politically damaging. However, in funded pensions there is a direct link between higher contributions and better pensions: a compulsory payment to a funded pension is thus less likely to be perceived as a tax. The increase in such contributions is likely to be less politically risky than increasing taxes.
examples	Most continental European countries, such as Germany, France, Italy, and Sweden	U.K., the Netherlands, Denmark, and Switzerland,
Table based on Bonoli (2003).		