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The economic situation and policies of New Zealand were reviewed by the Committee on 13 May 2019. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 13 June 2019.

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Basic Statistics of New Zealand, 2018[1]

(Numbers in parentheses refer to the OECD average)[2]

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million, 2017)	4.8		Population density per km² (2017)	18.2	(37.7)
Under 15 (%, 2017)	19.8	(17.9)	Life expectancy (years, 2017)	81.7	(80.3)
Over 65 (%, 2017)	15.3	(16.8)	Men (2017)	80.0	(77.7)
Foreign born (%, 2014)	22.2		Women (2017)	83.4	(83.0)
Latest 5-year average growth (%)	1.7	(0.6)	Latest general election	September 2017	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%, OECD: 2017)		
In current prices (billion USD)	203.1		Primary sector	6.2	(2.4)
In current prices (billion NZD)	293.2		Industry including construction	22.0	(27.3)
Latest 5-year average real growth (%)	3.3	(2.3)	Services	71.8	(70.3)
Per capita (000 USD PPP, 2017)	40.0	(44.7)			
GENERAL GOVERNMENT					
Per cent of GDP					
Expenditure (2017)	37.0	(40.3)	Gross financial debt (OECD: 2017)	35.5	(112.4)
Revenue (2017)	38.2	(38.1)	Net financial debt (OECD: 2017)	0.0	(69.4)
EXTERNAL ACCOUNTS					
Exchange rate (NZD per USD)	1.44		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	1.45		Food and live animals	55.9	
In per cent of GDP			Crude materials, inedible, except fuels	13.3	
Exports of goods and services	28.1	(56.2)	Manufactured goods	6.5	
Imports of goods and services	28.2	(52.0)	Main imports (% of total merchandise imports)		
Current account balance	-3.7	(0.3)	Machinery and transport equipment	39.0	
Net international investment position (2017)	-55.3		Miscellaneous manufactured articles	13.2	
			Mineral fuels, lubricants and related materials	11.9	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	77.5	(68.4)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	4.3	(5.3)
Men	82.1	(76.0)	Youth (aged 15-24, %)	11.5	(11.1)
Women	73.0	(60.9)	Long-term unemployed (1 year and over, %, 2017)	0.7	(1.7)
Participation rate for 15-64 year-olds (%, 2017)	80.9	(72.1)	Tertiary educational attainment (aged 25-64, %, 2017)	37.7	(36.9)
Average hours worked per year (OECD: 2017)	**1 756**	(1 746)	Gross domestic expenditure on R&D (% of GDP, 2015, OECD: 2016)	1.3	(2.5)
ENVIRONMENT					
Total primary energy supply per capita (toe, 2017)	4.4	(4.1)	CO_2 emissions from fuel combustion per capita (tonnes, 2016)	6.5	(9.0)
Renewables (%, 2017)	39.5	(10.2)	Water abstractions per capita (1 000 m³, 2014)	2.2	
Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2017)	0.0	(58.7)	Municipal waste per capita (tonnes, 2017)	0.7	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2014, OECD: 2015)	0.349	(0.315)	Education outcomes (PISA score, 2015)		
Relative poverty rate (%, 2014, OECD: 2015)	10.9	(11.8)	Reading	509	(492)
Median gross household income (000 USD PPP, 2014, OECD: 2015)	25.2	(23.3)	Mathematics	495	(490)
Public and private spending (% of GDP)			Science	513	(493)
Health care (2017)	9.0	(8.8)	Share of women in parliament (%)	38.3	(29.7)
Pensions (2017, OECD: 2015)	4.8	(8.5)	Net official development assistance (% of GNI, 2017)	0.2	(0.4)
Education (public, 2017)	7.4	(4.5)			

1. The year is indicated in parenthesis if it deviates from the year in the main title of this table.
2. If the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, World Bank

Executive summary

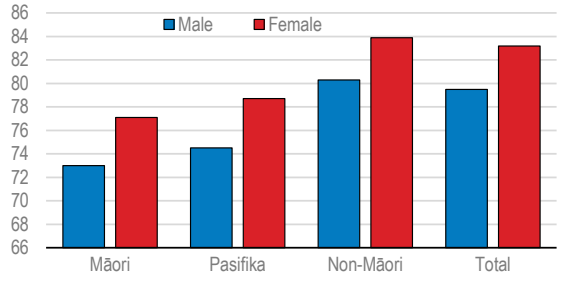
Well-being is generally high, but not across the board

Current well-being in New Zealand is generally high, but some weaknesses have emerged. Performance is very good for employment and unemployment, perceived health, social support, air quality and life satisfaction but not so good for earnings and household income, housing affordability and the incidence of long working hours. The income distribution is more unequal than the OECD average, reflecting lower than average redistribution through taxes and transfers, and is more skewed towards high-income households. Education, health and housing outcomes vary strongly by socio-economic background and ethnicity – Māori and Pasifika tend to fare worse.

Improving the well-being of New Zealanders and their families is one of three strategic priorities for the government. Their broad programme includes amending legislation to embed well-being objective-setting and reporting; developing well-being frameworks and indicator sets; and using well-being evidence to inform budget priority-setting and decision-making, including by embedding well-being analysis in policy tools. Other strategic priorities are building a productive, sustainable and inclusive economy, and providing leadership.

Figure A. Māori and Pasifika have shorter life expectancy

Years



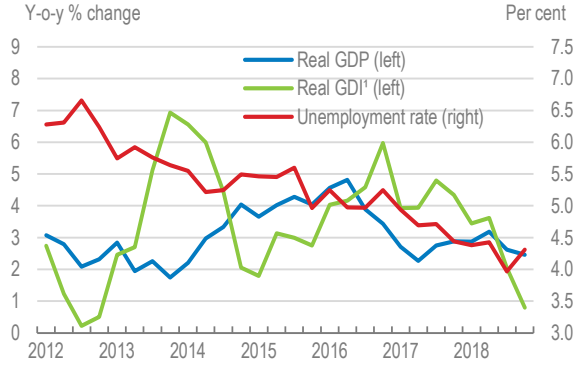
Source: Stats NZ, New Zealand Period Life Tables 2012–14.

StatLink https://doi.org/10.1787/888933948549

Economic growth has stabilised

Economic growth is an important driver of well-being through its positive contribution to jobs and income. Growth has stabilised at around 2½ per cent, just under 1% on a per capita basis. Private consumption growth has lost some strength since 2016, as migration inflows have fallen from their peak and wealth gains from house price appreciation have moderated. Low business confidence has contributed to weak business investment, despite capacity constraints. Terms of trade have come back slightly from a late 2017 peak and tourism demand remains strong, albeit slowing.

Figure B. Economic growth has stabilised and capacity constraints are tight



1. Real GDI equals real GDP adjusted for changes in the terms of trade.
Source: OECD, *Economic Outlook database*.

StatLink https://doi.org/10.1787/888933948568

Macroeconomic policy is expansionary, but fiscal policy is set to become broadly neutral. The policy interest rate is at a record low of 1.5% and is not expected to increase before end-2020. Fiscal policy became expansionary in 2018 as a consequence of a pick-up in spending on infrastructure, health, education and transfer payments to students and families. The fiscal stance is projected to become broadly neutral in 2020 in the absence of further discretionary measures. New Zealand's strong fiscal position contributes to well-being by preserving economic capital and supporting macroeconomic stability.

Economic growth is projected to remain close to potential. Lower immigration and house price inflation will continue to weigh on consumption, offset by minimum wage hikes and pay equity decisions. External demand is expected to grow more slowly, weighing on export growth.

The main domestic risk is a housing market correction, though there is no evidence of oversupply. The effects of a contraction would be magnified by the elevated household debt levels resulting from sustained house price increases. Rising trade restrictions internationally could have substantial negative repercussions for New Zealand as a small open economy without a large domestic market and heavily exposed to international commodity prices.

Table A. Growth is projected to remain around potential

	2018	2019	2020
Gross domestic product (GDP)	**2.8**	**2.6**	**2.5**
Private consumption	3.3	3.4	2.5
Government consumption	2.2	2.1	1.4
Gross fixed capital formation	3.8	2.0	3.2
Exports	3.0	2.4	2.9
Imports	5.5	0.0	3.1
Unemployment rate	4.3	4.2	4.3
Consumer price index	1.6	1.5	2.1
Government fiscal balance (% GDP)	0.1	-0.4	0.1
Current account deficit (% of GDP)	-3.7	-2.9	-2.7

Source: *OECD Economic Outlook 105 database.*

Labour market reforms have been initiated

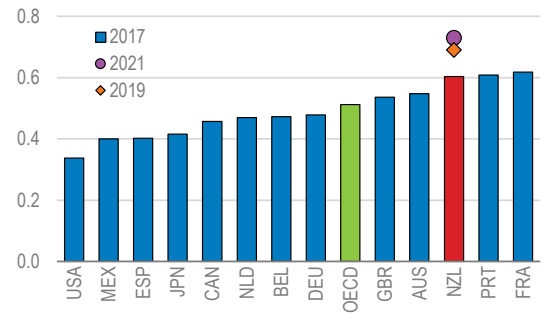
The minimum wage is high relative to the median and is being substantially increased, which is projected to more than double the share of hours worked at the minimum wage to 19%**.** This will increase wages for the low paid but, if effects resemble those in other OECD countries, may reduce youth, female and low-skilled employment. The increase is unlikely to have much effect on poverty because it is not well-targeted at low-income households.

The government plans to introduce Fair Pay Agreements (FPAs) – a process to enable parties that meet certain criteria to negotiate minimum terms and conditions that will apply across a sector or occupation – to increase workers' bargaining power and wages. FPAs are likely to reduce wage inequality, but also productivity growth in sectors covered if significant freedom to determine terms and conditions of employment at the enterprise level is not retained.

A Bill is before Parliament to facilitate pay equity negotiations to achieve equal pay for work of equal value. Enhanced gender pay equity will contribute to further reducing New Zealand's small gender pay gap. Back pay could have negative financial effects on some SMEs but the likelihood and extent of any back pay is uncertain.

Figure C. The minimum wage is high

Minimum wage relative to median wage of full-time workers



Source: Stats NZ; OECD, *Labour Earnings database.*

StatLink https://doi.org/10.1787/888933948587

Changes are underway at the central bank

The government has completed the first phase of its review of the Reserve Bank Act, clarifying the role of the Bank to 'promote the prosperity and well-being of New Zealanders'. The second phase is a good opportunity to introduce deposit insurance to protect depositors and support financial stability.

Separately, the Reserve Bank has proposed large hikes in bank capital requirements. High bank capital requirements reduce the costs from financial crises, but might also dampen economic activity through higher lending rates. On balance and notwithstanding considerable uncertainty,

increases in bank capital are likely to have net benefits, but the impacts should be carefully monitored.

A well-being approach to policymaking is being implemented

Building on many years of work, the Treasury has recently updated its Living Standards Framework and released a Dashboard for measuring and reporting on well-being. The concepts and indicators included in the Dashboard are generally well-aligned with those measured in other countries, but there are gaps, including in some aspects of natural capital where New Zealand has experienced some downward trends or fares poorly. Work to address these gaps is ongoing, and a more comprehensive database (Indicators Aotearoa New Zealand) is being developed by Stats NZ.

Five priorities were agreed for the 2019 Budget using well-being evidence. All agencies seeking funding for new initiatives were expected to identify well-being impacts. The Treasury's cost-benefit analysis tool has been updated to link impacts to well-being domains and can be used as a supporting tool for developing budget bids. Priority was given to initiatives that align with the budget priorities and show cross-agency and cross-portfolio collaboration.

The government is also considering options for embedding a well-being approach in legislation. The latest proposals for the Public Finance Act would require governments to set well-being objectives and report on them annually, while the Treasury would report on well-being every four years. This follows the passing of the Child Poverty Reduction Act in 2018, which put into law the requirement to have both measures of and targets for child poverty.

Water and climate change are key challenges for future well-being

New Zealand's performance on resources for future well-being is mixed. The sustainability of well-being over time is assessed by the OECD through four stocks of resources or "capitals": financial and physical, human, social and natural capital. Social capital is a clear strength in New Zealand, with high levels of trust and civic engagement and low perceptions of corruption. High skills levels contribute to human capital, although high and rising obesity rates threaten future health. Financial and physical capital suffers from low investment in R&D. Household wealth, while high on average, is skewed towards the wealthy, and household debt has risen alongside rapid increases in house prices.

New Zealand's natural capital is under threat. Increasing diffuse sources of pollution have reduced water quality in many areas, in particular due to the expansion of dairy farming. While New Zealand has abundant freshwater overall, water scarcity is a growing concern in key agricultural areas. Pricing and permit trading should be expanded (subject to agreeing iwi (tribal)/Māori rights) to achieve water quality and quantity objectives efficiently.

The government is drafting a Zero Carbon Bill that will set an emissions reduction target for 2050 but gross GHG emissions are projected to exceed the 2030 Paris Agreement commitment. New Zealand has one of the highest emissions per capita in the OECD (almost half of which are biological emissions from agriculture) and they have fallen little since 2010. The price of emissions needs to be consistent with New Zealand's intended transition to a low-emissions economy. A date for the inclusion of biological emissions from agriculture should be announced or alternative pricing and regulatory measures taken to enable the industry to adapt to lower emissions levels.

Immigration's contribution to well-being should be enhanced

Immigration increases economic well-being of both immigrants and most of the NZ-born, although associated increases in housing costs, congestion and pollution have had negative effects. Immigration has small positive effects on per capita incomes and does not reduce wage rates or employment on average for the NZ-born. However, temporary migration has small

negative impacts on new hires of some groups of people, notably social welfare beneficiaries living outside the (16) most urbanised areas. Immigrants initially earn less than the comparable native-born and the gap closes slowly. Nevertheless, immigrants have similar well-being outcomes to the native-born, which are generally high.

Immigration policy has been changed to target immigrants with better labour market prospects. Changes were made in 2017 to temporary migration programmes, which are a conduit to permanent residence, and to the points system for skilled immigration to increase skills requirements. Planned changes to employer-assisted temporary work visas will reduce employers' reliance on low-skilled migration and, together with education and welfare reforms, improve job prospects for some lower-skilled New Zealanders.

Improving settlement programmes would enhance integration. Programmes that connect job-seeking immigrants and employers should be complemented by mentoring programmes, which help immigrants overcome under-representation in high-quality jobs by developing professional networks, and bridge programmes, which help with post-secondary credentials recognition in regulated occupations.

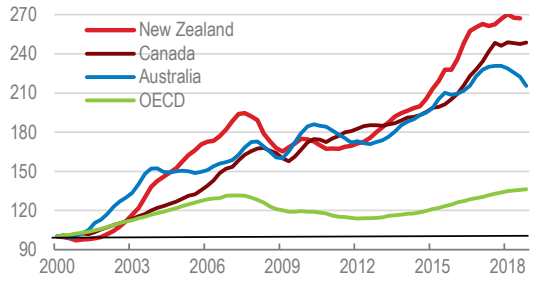
Some migrants on temporary work visas are vulnerable to exploitation and some have been exploited. They cannot easily leave their employer without seeking a variation of conditions for their visa. A review is underway to identify effective and sustainable solutions.

More needs to be done on housing

More needs to be done to increase housing supply and improve affordability. A raft of measures are in train to enable additional housing supply, including government delivery of new affordable housing through KiwiBuild. Even so, strict regulatory containment policies still impede densification and should be replaced with rules that better align with desired outcomes. Infrastructure funding pressures faced by local governments hinder development. They could be relieved through sharing in a tax base linked to local economic activity, more user charging for roads and water, and removing barriers to use of targeted local taxes on property value increases from changes in land use regulation or from infrastructure investment. Re-focusing KiwiBuild towards enabling the supply of land would direct government efforts towards key bottlenecks and allocate risks to developers where they are better placed to manage them. Subsidising construction of affordable rental housing, as in several other OECD countries, would be another way to support affordability.

Figure D. Real house prices have soared

Index 2000 Q1 = 100



Source: OECD, *Economic Outlook database*.

StatLink https://doi.org/10.1787/888933948606

Reforms are also needed to assist low-income renters, whose well-being has suffered most from declining affordability. Proposed reforms would go some way to rectifying low security of tenure for renters but should go further to prevent landlords from using rent increases that are disconnected from market developments as a means of eviction. Social housing supply is low by international comparison and there are poor outcomes for at-risk groups, including overcrowding, low quality housing and high homelessness. The waiting list for social housing has more than doubled in the past two years and larger increases in supply than those currently underway are needed. In part this could be achieved by reallocating funding from KiwiBuild, which would help better target those in need.

MAIN FINDINGS	KEY RECOMMENDATIONS
A robust, green and inclusive economy that underpins well-being	
Underlying inflation is just below the mid-point of the target band and inflationary expectations are well-anchored.	Maintain an accommodative monetary policy stance for the time being.
Fiscal policy is currently expansionary, but set to become broadly neutral in 2020. Public finances are on a sustainable path.	Continue to support well-being through prudent fiscal policy, keeping net public debt on the path defined in the government's fiscal strategy.
The minimum wage is high relative to the median wage and being progressively increased, with potentially adverse employment effects for women and youth in particular.	Monitor the labour market and income distribution effects of minimum wage hikes, especially on women and youth, and slow the increases if the effects are negative.
The Reserve Bank has proposed substantial increases in bank capital requirements over a transition period of several years.	Increase bank capital requirements, as warranted by the Bank's forthcoming cost-benefit analysis, and carefully monitor the impacts.
New Zealand does not have deposit insurance, exposing small depositors to risks they are not well-placed to manage.	Introduce deposit insurance up to a specified limit.
New Zealand has high levels of well-being on average but less so for some groups.	Prioritise improving well-being for Māori, Pasifika, sole parents and children, through better targeted income, education, health and housing policies.
Treasury's Living Standards Framework Dashboard has some data gaps, including areas where New Zealand fares poorly. The data infrastructure and evidence base require further development.	Strengthen measurement of natural capital, innovation, human capital, cultural identity and integration of indigenous perspectives, within the Dashboard or the Stats NZ Indicators Aotearoa New Zealand database. Ensure sufficient resources to collect key indicators on a regular basis and with appropriate granularity. Subjective well-being indicators should continue be used as a complement to, rather than a replacement for, objective data.
Applying well-being to policy development remains at an early stage. Civil service implementation capacity needs strengthening.	Review experiences from Budget 2019 and further develop the methodological guidance on the preparation and assessment of spending bids. Integrate well-being into other policy advice and tools, such as regulatory impact assessment, and evaluation.
Pollution from farming and urban growth is reducing water quality, and water is scarce in some regions.	Agree iwi (tribal)/Māori rights to water. Subsequently expand water pricing or permit trading to achieve water quality and quantity objectives.
NZ Emissions Trading Scheme (NZ ETS) prices have been well below estimates of climate-related costs of CO_2 emissions. The scheme excludes biological emissions from agriculture.	Increase the emissions price to a level consistent with New Zealand's intended transition to a low emissions economy. Announce a date for inclusion of biological emissions in the NZ ETS or alternative pricing and regulatory measures to reduce them.
Improving well-being through better migration policy	
The employer-assisted temporary work visa system is not limiting recruitment of migrants to resolving genuine skills and labour shortages, is attracting too many low-skilled migrants and may be weakening incentives for employers to employ and train New Zealanders.	Require employers to be accredited before they can recruit migrant labour. Revise job checks to ensure that migrant labour is only recruited where there are genuine shortages. Align the immigration, education and welfare systems to encourage training and employment of New Zealanders.
Some migrants on Essential Skills visas are victims of exploitation. A review is underway to find effective and sustainable solutions.	Make it easier for migrants on employer-assisted temporary work visas to modify their visa so that they can more easily change their employer.
Integration programmes help immigrants to close the earnings gap with the comparable NZ-born population but need to be taken further.	Complement Regional Skills Matching Programmes by mentoring and bridge programmes.
Improving well-being through better housing policy	
Unnecessarily restrictive and complex land-use regulations have inflated land and house prices, disproportionately affecting construction of affordable housing.	Replace strict regulatory containment policies (such as restrictions on multi-dwelling units, minimum lot sizes, density controls and minimum parking requirements) with clear rules around overshadowing, building size according to location and green spaces.
Local governments bear the bulk of infrastructure costs, but have limited ability to recoup them. They thus have a fiscal incentive to resist population growth through restrictions on planning or building.	Increase user charging for water and roads, and remove barriers to greater use of targeted local taxes on property value increases resulting from changes in land use regulation or from infrastructure investment.
Construction of new affordable housing through KiwiBuild will only increase overall supply if planning, infrastructure and construction industry constraints are overcome. Better targeting is required and the government has taken on risks better borne by developers.	Re-focus KiwiBuild on enabling the supply of land through aggregating fragmented land holdings and de-risking development sites. Give greater priority to new rental housing.
Low-income renters have been particularly badly affected by declining housing affordability. Social housing stocks are low by international comparison and waiting lists are growing.	Increase social housing provision in areas with shortages, including through expanding partnerships with non-governmental organisations and reallocating funding from KiwiBuild.

Key policy insights

The New Zealand Government is applying a well-being approach to policy and budget decision-making with the objective of lifting New Zealanders' well-being. Their approach embraces the whole of government, with agencies working together to achieve well-being objectives, a focus on inter-generational outcomes and moving to broader measures of success. The new well-being focus is being deployed through a range of actions: amending legislation to embed well-being objective-setting and reporting; developing well-being frameworks and indicator sets; and using well-being evidence to inform budget priority-setting and decision-making.

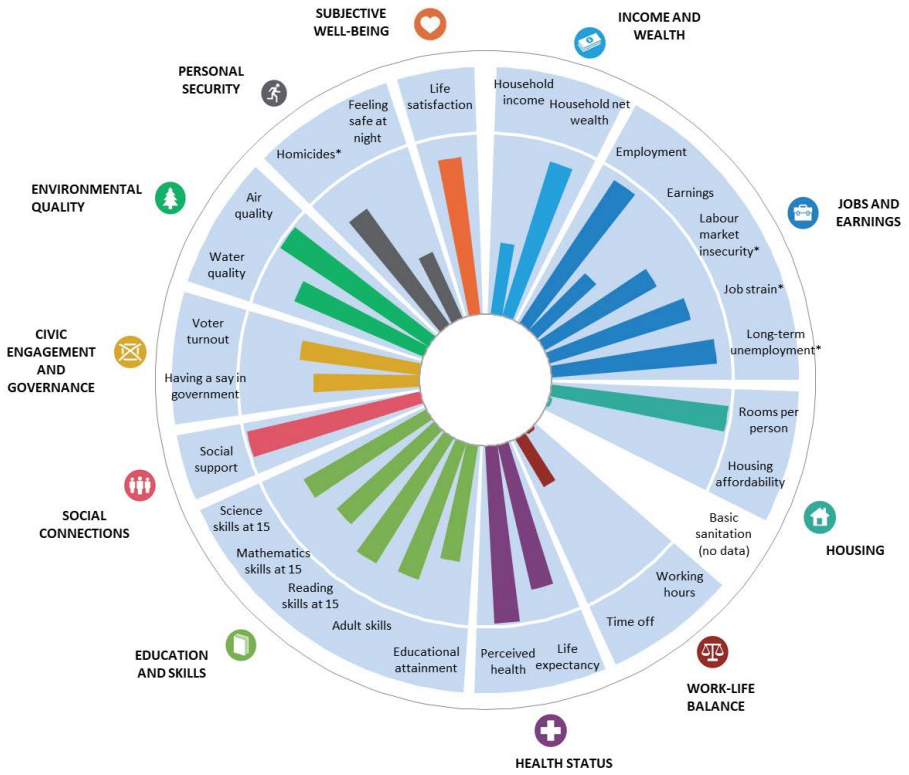
New Zealanders generally enjoy high levels of well-being, as indicated by the OECD's *How's Life* indicators (Figure 1, Panel A). Overall outcomes are particularly good for employment and long-term unemployment, housing size, perceived health, social support and air quality. However, compared with other OECD countries, average earnings and household income are low, reflecting low productivity (Figure 2, Panel A), housing affordability is a significant challenge, a large share of people usually work long hours (50 or more per week) or don't have much time off work, and feelings of safety are below the OECD average.

New Zealand fares well in several aspects of the four capitals – natural, financial and physical, human, and social – that underpin future well-being. At least half of the indicators monitored by the OECD in each category rank amongst the top third of OECD countries, except for financial and physical capital (Figure 1, Panel B). Nevertheless, reforms will be needed to counter the deterioration over the past decade in some areas of relative strength, notably students' cognitive skills at age 15, long-term unemployment and land area covered by forests. New Zealand does less well in building knowledge capital through R&D, natural capital through greenhouse gas (GHG) emissions and freshwater abstractions, and human capital owing to the spread of obesity. Although not included amongst the indicators referred to above, the expansion of dairy farming has catalysed a deterioration in water quality, and biodiversity is under threat. Over the last decade, child poverty rates have increased on some measures (e.g., based on a relative poverty line of 50% of median equivalised disposable household income before housing costs) but declined on others (e.g., based on the same relative poverty line but after housing costs) (Stats NZ, 2019[1]).

Social capital is particularly strong. A factor that contributes to high social capital is low perceptions of corruption (Figure 3, Panel A), although there has been some deterioration in recent years (Panel B). Perceptions of the use of public power for private gain are also low (Panel C). New Zealand has addressed many of the recommendations in the OECD Working Group on Bribery's New Zealand Phase 3 report (OECD, 2013[2]) on combating bribery of foreign public officials, in particular by amending key pieces of legislation (OECD, 2016[3]). The Group noted that while New Zealand had made progress in detecting and investigating foreign bribery offences, none of the six investigations to date had given rise to a prosecution. It stressed the 'significant need for New Zealand to strengthen enforcement of its foreign bribery offence' (ibid, p. 4).

Figure 1. On average, New Zealand performs well on several OECD *How's Life?* indicators

A. Current well-being



B. Resources for future well-being

NATURAL CAPITAL			FINANCIAL & PHYSICAL CAPITAL			HUMAN CAPITAL			SOCIAL CAPITAL		
GHG emissions from domestic production	3	→	Produced fixed assets	2	→	Young adult educational attainment	2	→	Trust in others	1	↔
CO2 emissions from domestic consumption	2	←	Gross fixed capital formation	2	←	Educational expectancy	2	..	Trust in the police	1	..
Exposure to PM2.5 air pollution	1	→	Intellectual property assets	2	→	Cognitive skills at age 15	1	←	Trust in the national government	1	↔
Forest area	1	←	Investment in R&D	3	↔	Adult skills	1	..	Voter turnout	1	↔
Renewable freshwater resources	1	..	Household debt	2	←	Long-term unemployment	1	←	Government stakeholder engagement	1	..
Freshwater abstractions	3	..	Household net wealth	1	..	Life expectancy at birth	2	→	Volunteering through organisations	1	↔
No comparative data on threatened species			No comparative data on Financial net worth of government, Financial net worth of the total economy, and Banking sector leverage			Smoking prevalence	1	→			
						Obesity prevalence	3	←			

Note: This chart shows New Zealand's relative strengths and weaknesses in well-being compared with other OECD countries. For the current well-being wheel, for both positive and negative indicators (marked with an "*"), longer bars always indicate higher well-being, and shorter bars worse well-being. Basic sanitation is left blank because no comparative data are available. For the future well-being dashboard: 1 = top-performing OECD tier, 2 = middle-performing OECD tier, 3 = bottom-performing OECD tier. Time trends are considered since approximately 2005 to the latest available year, which is generally 2016. Forward arrows (in green) signify improvement over time, backward arrows (in black) indicate worsening, and level arrows (grey) indicate little change. Missing time trend data is indicated as "..".

Source: Adapted from OECD (2017) *How's Life? 2017* unless otherwise indicated in the StatLink. See the StatLink for exact reference periods and sources.

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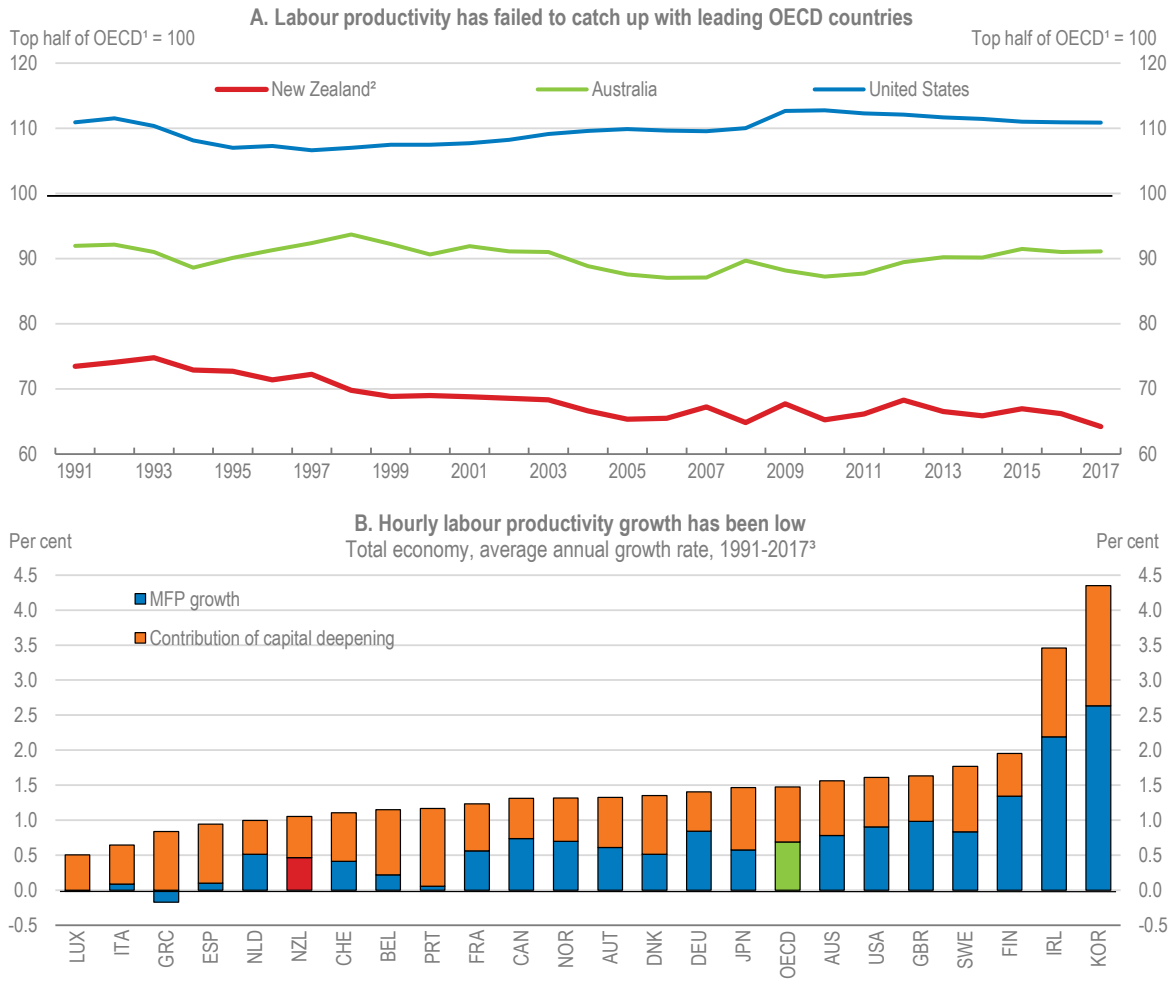
Figure 2. Labour productivity is weak



1. Population-weighted average for the top 17 OECD countries for labour productivity, calculated using 2010 purchasing power parity exchange rates.
2. In contrast to most other OECD countries, including Australia and the United States, New Zealand makes no adjustment for biases in self-reported estimates of hours actually worked and hence in labour productivity estimates. Ward, Zinni and Marianna (2018, p. 48[4]) note that "… estimates of working time derived from the LFS [as in New Zealand] often require adjustments for over-reporting of hours worked (compared with hours worked reported in time use surveys), in particular for those working long hours, like managers and professionals, but also because respondents are likely to underestimate absences from work due to public holidays and annual leave". To illustrate the importance of these adjustments, these authors recalculate labour productivity for 10 OECD countries (but not New Zealand) that do not have fully adjusted hours worked data in their official national accounts series and find that this reduces productivity gaps relative to the United States by around 10 percentage points on average. These revised estimates are now used in the OECD Productivity database. Methodological changes to Stats NZ's Labour Force Survey in the second quarter of 2016 contributed to weaker estimated labour productivity growth due to a one-off level increase in estimated labour force participation. Adjusting for this change still results in a decline in estimated labour productivity in the year to March 2017, albeit of a smaller magnitude (New Zealand Treasury, 2017[5]). Forthcoming incorporation of lower net migration estimates by Stats NZ (chapter 2) will result in a small increase in productivity since 2015 due to lower estimated population and thus hours worked.
3. 1992-2017 for Switzerland; 1996-2017 for Austria and Luxembourg; 1991-2014 for Ireland; 1991-2016 for Japan, Norway, Portugal and Spain. The OECD aggregate is the average of the 23 countries for which data are available.
Source: OECD, *Productivity database*; Ward, A., M. Zinni and P. Marianna (2018), "International productivity gaps: Are labour input measures comparable?", *OECD Statistics Working Papers*, No. 2018/12.

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Figure 3. Perceived corruption is low

1. The Corruption Perceptions Index uses a scale of zero (highly corrupt) to 100 (very clean).
2. Prior to 2012, the Corruption Perception Index uses a scale of zero (highly corrupt) to 10 (very clean). A change in the methodology in 2012 capturing more information generated a new scale ranging from zero (highly corrupt) to 100 (very clean).
3. Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.
Source: Transparency International; World Bank, *Worldwide Governance Indicators*.

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New Zealand has had high net immigration, although it has slowed and recent methodological changes have somewhat reduced estimates of how big it has been. The immigration system contributes to well-being by promoting economic development, reuniting families and responding to humanitarian objectives. Immigration is high and residence approvals are targeted on the high-skilled to enhance economic benefits, although these are constrained by the failure of housing- and infrastructure supply to keep up with the resulting population growth, notably in Auckland. On most measures, immigrants are well integrated (OECD and European Union, 2015[5]). They generally have good labour market outcomes and levels of social inclusion, most eventually become citizens and their children do well in education and subsequently in the labour market. However, immigrants' entry earnings are considerably lower than for the New Zealand-born with comparable labour market characteristics and only converge slowly, as in other countries. Narrowing this gap by attracting immigrants with better labour market prospects and improving integration measures would enable more immigrants to realise their potential, boosting their well-being and that of the rest of the community. Concerns have also arisen that the employer-assisted temporary work visa system is not limiting recruitment of migrants to resolving genuine skills and labour shortages, is attracting too many low-skilled migrants and may be weakening incentives for employers to employ and train New Zealanders.

Housing costs now represent a major burden for low-income households, absorbing 45% of income for the households in the bottom quintile of the income distribution, compared with 15% for households in the top quintile (Perry, 2018[6]). Moreover, housing quality for low-income households is often poor owing to inadequate insulation, dampness, lack of adequate heating and overcrowding (especially among Pasifika, Māori and Asian households and in Auckland).

This *Survey* focuses on implementing a well-being approach to policymaking in New Zealand. It reviews well-being outcomes, highlighting strengths and areas for improvement, and discusses the challenges of implementing such an approach (Chapter 1). Immigration has improved the economic well-being of both immigrants and the NZ-born but temporary migration has had small negative impacts on new hires of some groups of people and, as in other countries, immigrants initially earn less than the comparable native-born (Chapter 2). The *Survey* discusses reforms to migration policy to enhance the benefits and reduce the costs, notably by contributing to easing labour shortages, attracting immigrants with stronger earnings prospects and improving migrant integration. Housing policy also has a significant bearing on well-being (Chapter 3). Housing supply has not kept pace with rising demand in recent years, including from net immigration, resulting in large increases in house prices and declines in housing affordability. Reforms to increase housing supply responsiveness to demand would improve affordability, enhancing well-being. The *Survey* also discusses reforms in labour market regulation and environmental policy aimed at improving well-being, both today and for future generations.

Against this background, the main messages of this *Economic Survey* are that:

- Well-being is high on most dimensions but weaknesses, such as relatively low productivity and earnings, uneven distribution, challenges of housing affordability and child well-being, and threats to natural capital, need to be addressed. Embedding the well-being approach further into public policymaking holds the promise of making policy advice and implementation more effective, through better targeted actions, a deeper understanding of trade-offs, and more coordinated collaboration across agencies.

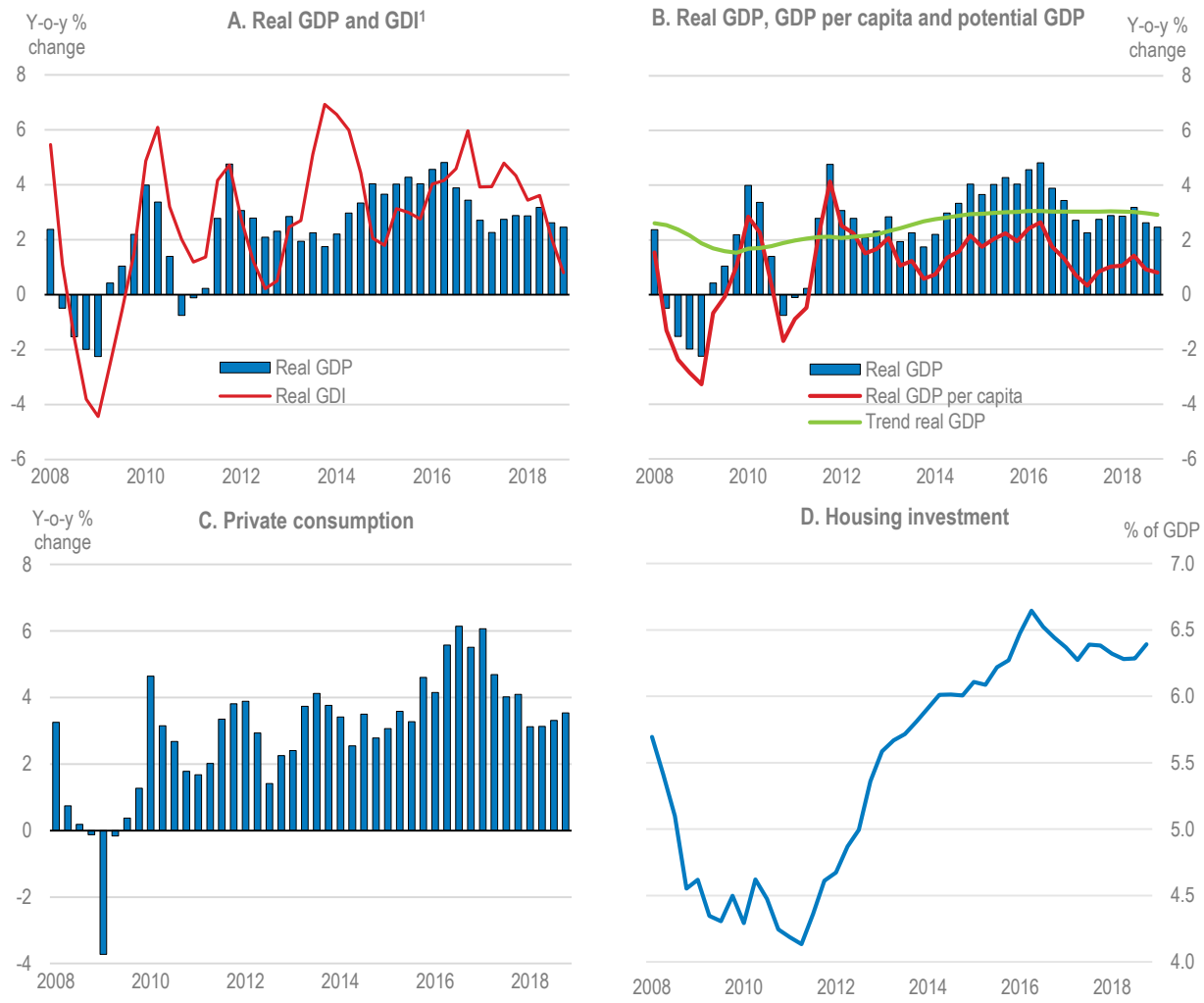
- Despite generally good macroeconomic- and structural policy settings, New Zealand has relatively low productivity levels and hence earnings. This is due to lack of international connection and scale, qualification and skills mismatches, weak competitive pressures and low rates of capital investment and R&D activity. Policy settings should be adjusted to further support innovation, business dynamism and competition.
- Immigration has increased well-being for both immigrants and the New Zealand-born. It would be even more beneficial if temporary migration more effectively targeted skills and labour shortages and recent immigrants were better integrated into the labour market.
- House prices have risen, affordability has dropped and homelessness is high, calling for urgent reforms to ease constraints on housing supply.

Recent economic developments, macroeconomic and labour market policies

Economic growth has stabilised, but capacity constraints remain tight

Economic growth is an important driver of well-being through its positive contribution to jobs and income. Growth has slowed from the high rates recorded in 2015 and 2016 to around 2½ per cent, just below the OECD estimate of potential growth and less than 1% on a per capita basis (Figure 4, Panels A and B). Weaker private consumption growth has been a key driver (Panel C), as migration inflows and wealth gains from house price appreciation have slowed. These effects have been offset in the second half of 2018 by increases in government transfer payments, notably with the Families Package coming into effect. Housing investment rose rapidly between 2011 and 2016, supported by the Canterbury earthquake rebuild. Its share of GDP has since stabilised as the construction industry has faced capacity constraints associated with labour shortages, credit constraints and a lack of land with suitable infrastructure (Panel D).

Figure 4. Growth has slowed to slightly below potential



1. Real GDI equals real GDP adjusted for changes in the terms of trade.
Source: OECD, *Economic Outlook database.*

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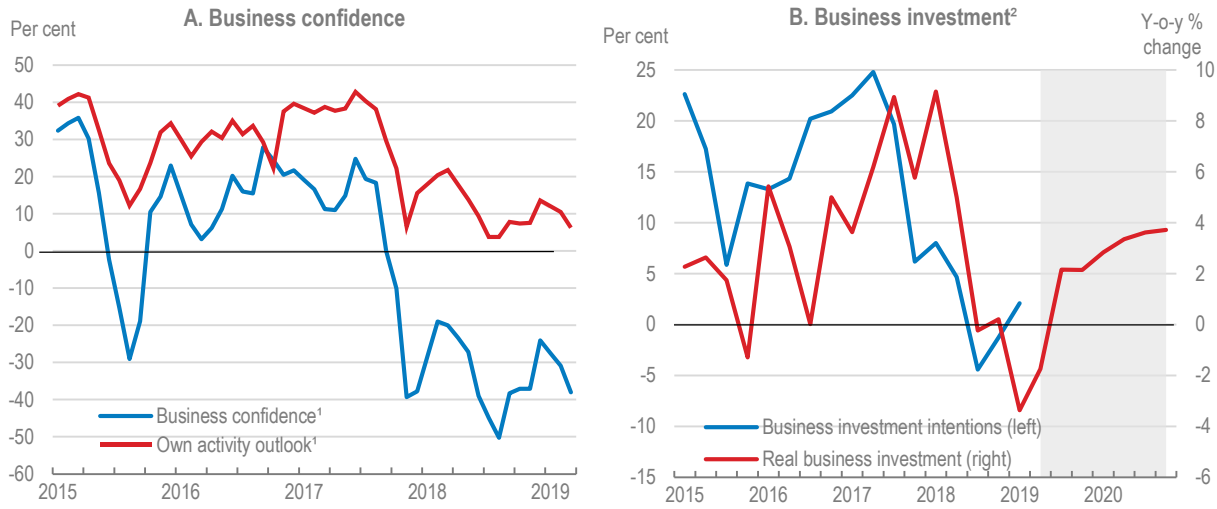
The level of output is estimated to have been just above potential since 2016. Despite capacity pressures, business investment was weak in 2018. This is partly the result of faltering business confidence (Figure 5), which has fallen from among the five highest levels in OECD countries in 2016 to among the bottom five in 2018. Low business confidence reflects concerns about government policy (cited by more than 60% of surveyed firms), the costs and availability of labour and tight profit margins (NZIER, 2018[7]). Labour market reforms proposed and underway (see below) are likely to be a factor, although data are not available to link low business confidence with specific policy measures. The concerns expressed by the business sector should be taken into consideration and balanced against the broader goals of the reforms. In contrast, tourism is buoyant and New Zealand's terms of trade remain elevated (Figure 6). Weak business investment, volatility due to lumpy items and biosecurity issues concerning some motor vehicle shipments contributed to slow import growth in late 2018 and early 2019, temporarily raising the contribution of net exports to growth. New Zealand's net international

investment position has improved considerably since 2009, though net international liabilities remain high by international comparison. New Zealand is exposed to economic developments in China, both as its largest export market and indirectly via links with Australia, its second largest export market (Figure 7).

Figure 5. Low business confidence has contributed to weak investment



1. Percentage expecting improvement minus percentage expecting deterioration.
2. The shaded area indicates the projection period. The business investment intentions is the percentage of firms expecting to increase investment in property, plant and equipment in a year's time less percentage expecting to decrease investment.
Source: ANZ Bank, *Business Outlook Survey;* OECD, *Economic Outlook 105 database.*

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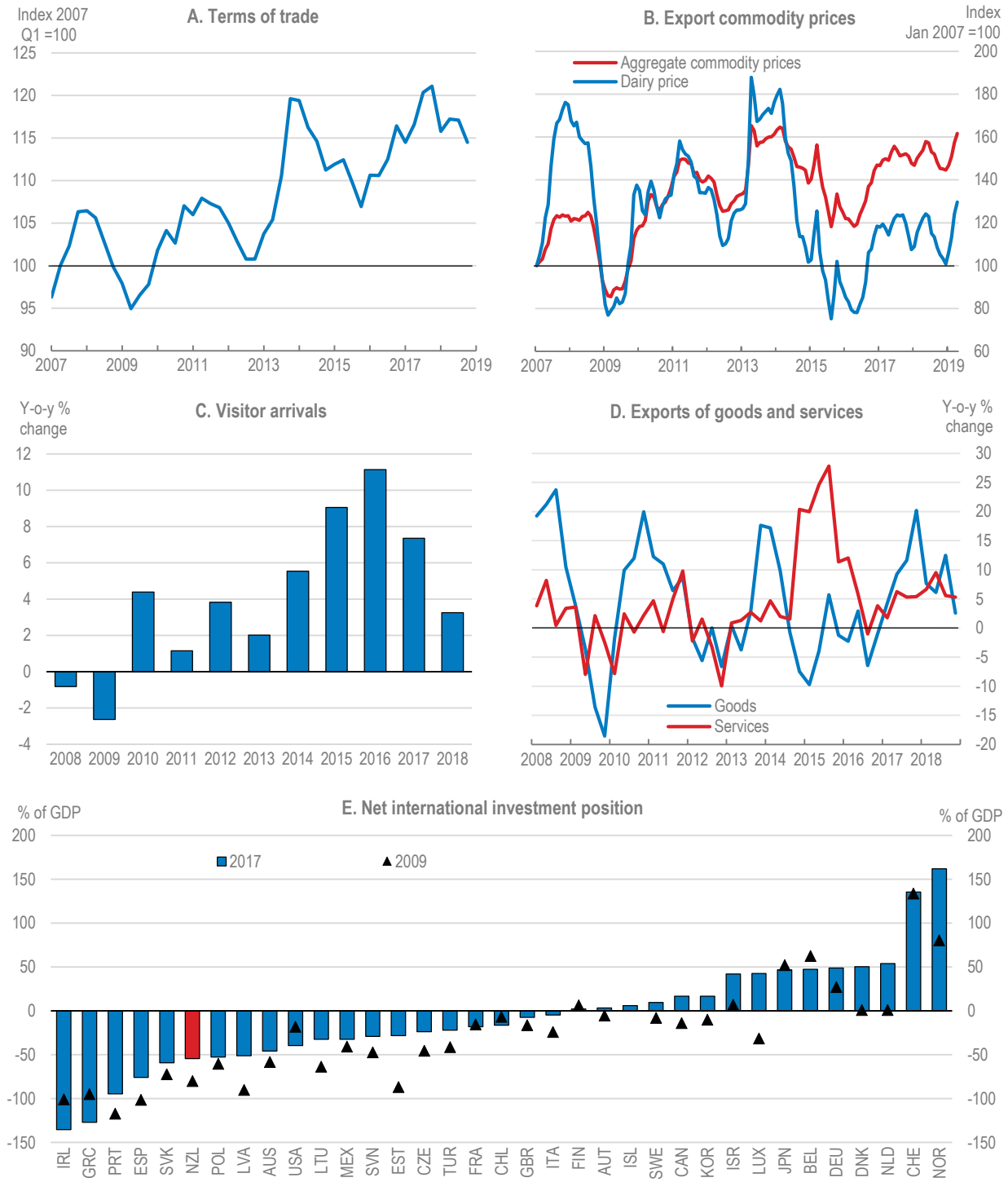
The labour market is tight, with widespread skills shortages. Unemployment reached a ten-year low in late 2018 (Figure 8). At the same time, the share of unemployed people who have been out of work for 12 months or more has continued to increase though it is only half of the OECD average. Wage growth has picked up, partly boosted by minimum wage hikes and increases in caregiver wages. Moreover, public sector unions have stepped up action to obtain pay rises. However, as in many other OECD countries, overall nominal wage growth remains lower than in previous expansions, reflecting weak productivity growth, low inflation expectations and low job-to-job flows.

Figure 6. Robust external demand has supported the economy



Source: OECD, *Economic Outlook 105 database*; Stats NZ; IMF, *Balance of Payments Statistics database*.

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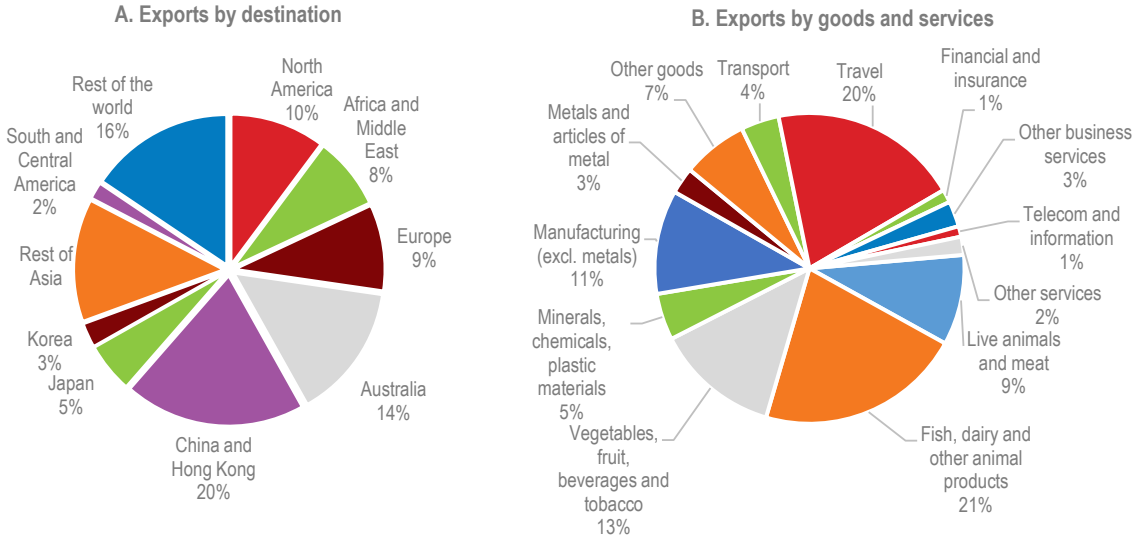
Figure 7. China and Australia are key export markets

2018



Note: Other services include government services not elsewhere included (n.e.i.); personal, cultural and recreational services; construction; maintenance and repair services and charges for the use of intellectual properties n.e.i.
Source: Stats NZ.

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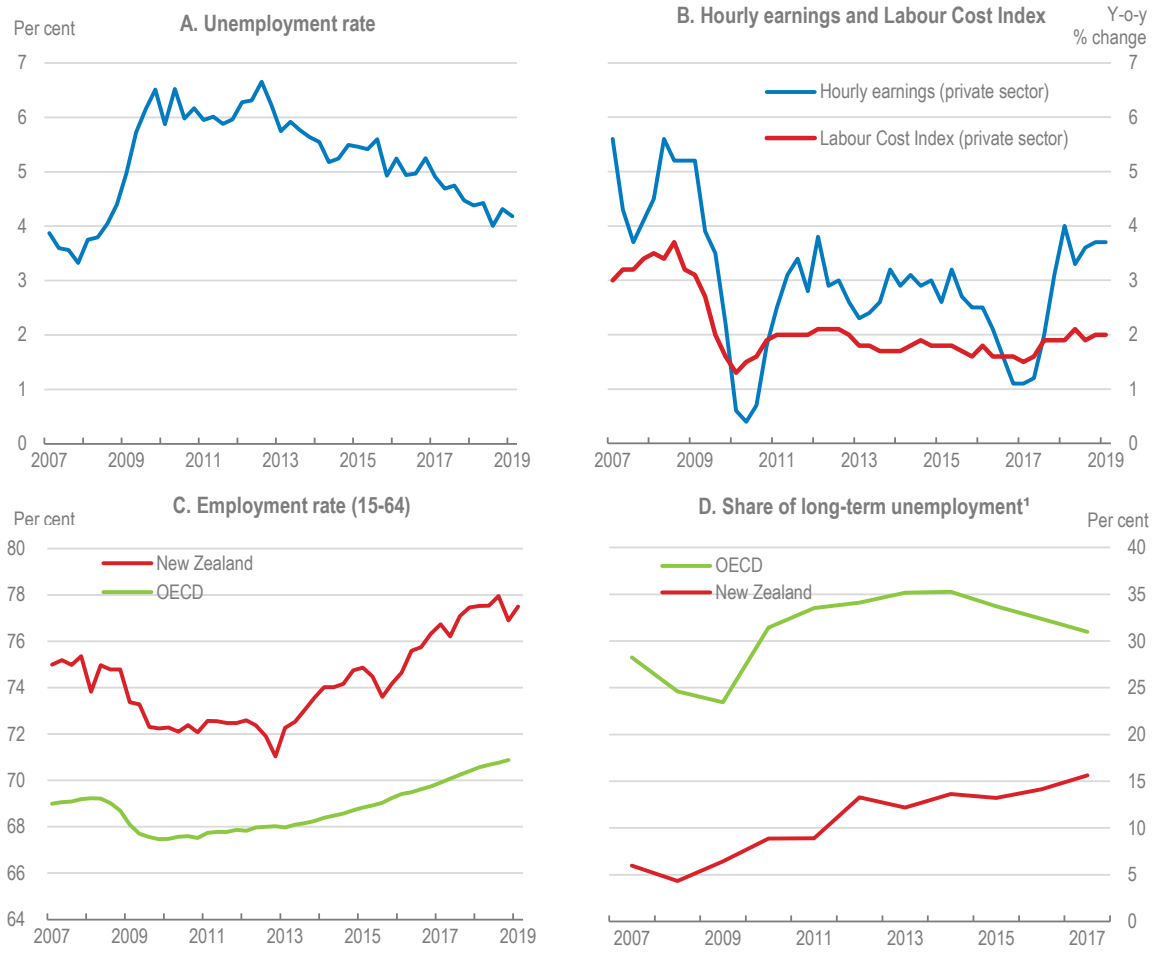
While inflation remains below the mid-point of the RBNZ 1-3% target band, non-tradeables inflation has increased significantly to 2.8% (Figure 9), reflecting the lack of spare capacity in the domestic economy. Underlying inflation remains around 1.7%, just below the mid-point of the target band. Inflationary expectations are well-anchored, at close to 2% across all horizons.

Low productivity impedes well-being

New Zealand has a large labour productivity gap vis-à-vis the upper half of OECD countries, albeit somewhat overstated owing to methodological differences between New Zealand and most other countries in measuring hours actually worked (Figure 2, Panel A). Relatively low productivity depresses well-being by holding down earnings and household incomes and, all else equal, revenue available to fund societal goals. Since the mid-1990s, growth in GDP per capita has been in line with other OECD countries despite lacklustre productivity growth, reflecting increases in hours worked per person. Weak labour productivity growth has reflected both slow multifactor productivity growth and insufficient investment (Figure 2, Panel B). As a result, the gap with leading OECD countries has not diminished.

As described in the 2017 *Economic Survey*, productivity performance has been poor despite generally favourable policy settings owing to a lack of international connection and scale, high rates of qualification and skills mismatches, muted competitive pressures and low business investment and research and development activity. New Zealand's location and small population are contributing factors as they constrain gains from specialisation and agglomeration.

Figure 8. The labour market is tight



1. Long-term unemployment refers to people who have been unemployed for 12 months or more.
Source: OECD, *Labour Force Statistics database*; Stats NZ, *Labour Market Statistics*.

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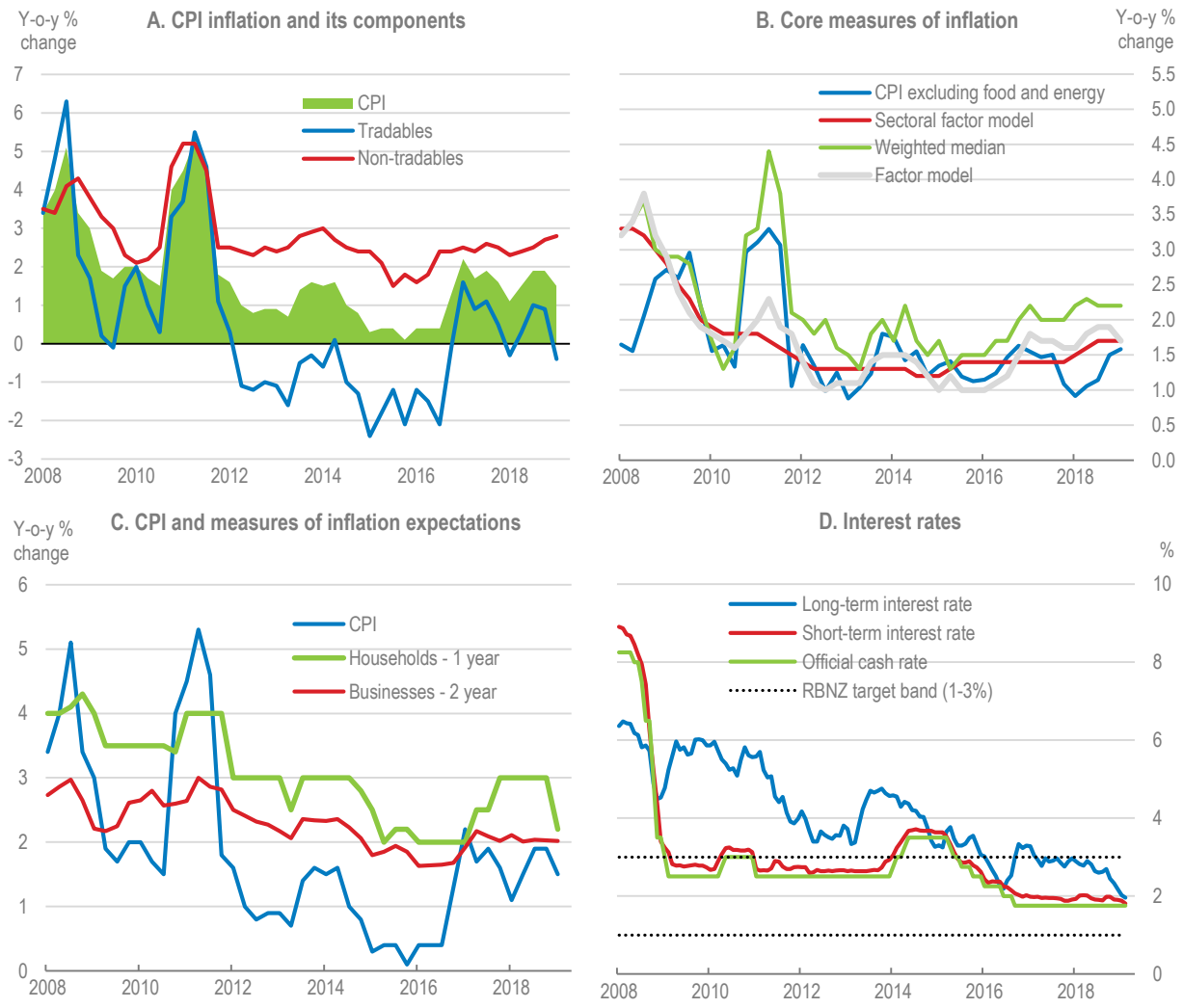
Productivity, and hence labour earnings and household incomes, could be boosted by adopting policies aimed at spreading innovation and technology diffusion and at catching up to global productivity leaders. Examples include strengthening business dynamism through greater venture capital support for early-expansion-stage firms and facilitating exit of non-viable firms, boosting support for collaboration between research institutions and industry, and sharpening competitive pressures (Table 1). Strategic deployment of the Commerce Commission's new market studies power and increased support through the new research and development tax credit should also serve to increase productivity. Qualification and skills mismatches should be reduced through better careers education and guidance, improved managerial practices, as well as reforms to reduce planning and infrastructure impediments to new housing (see below), which increase house prices in growing areas, making it more difficult for workers to move to a better matched job where they would be more productive.

Figure 9. Inflation is just below the mid-point of the target band



Note: The tradeable sector includes manufacturing, agriculture, forestry, fishing and mining. The non-tradeable sector consists of locally-rendered services such as health, education, retail and construction.
Source: Stats NZ; Reserve Bank of New Zealand; OECD, *Economic Outlook database.*

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International experience indicates that reducing barriers to foreign direct investment could promote competition, open up access to global supply chains, as well as bring in much-needed technological, skills and managerial quality transfers. In New Zealand, foreign owned firms' labour productivity is almost twice as high as domestic firms', but the evidence for productive spillovers from foreign into locally owned firms is fairly weak and concentrated in the construction and retail sectors (Doan, Maré and Iyer, 2015[8]). New Zealand has a comprehensive and poorly-targeted foreign investment screening process that creates delays, significant compliance costs and uncertainty for investors. Compliance costs have recently been reduced for some transactions, notably in forestry. Further steps in this direction should be taken.

Table 1. Past OECD recommendations on increasing productivity

Recommendations in past Surveys	Actions taken since the previous *Survey*
Progressively narrow screening of foreign investment. Continue to reduce compliance costs and boost predictability for investors.	Introduction of a streamlined process for overseas investment in forestry, including standing consents and exemption for foreign buyers of fewer than 1000 hectares of forestry rights per year.
Review the merits of refocusing competition law on the effects of potentially anti-competitive conduct, as opposed to its intent. Provide the Commerce Commission with the power and resources to undertake market studies.	Market studies power has been granted to the Commerce Commission.
Expand the use of *ex post* evaluations of Commerce Commission decisions to assess performance.	No action taken – *ex post* evaluations are undertaken on an *ad hoc* basis.
Increase fiscal support for business research and development. Maintain or increase long-term support for successful collaboration between research institutions and industry.	A 15% research and development tax credit has been introduced, replacing Growth Grants.
To address equity financing gaps, shift the allocation of the NZ Venture Investment Fund to provide greater support for early-expansion-stage firms.	No action taken.
Move towards privatisation of state-owned enterprises (SOEs), and consider reducing local government ownership of port assets to bring more market discipline to the sector.	No action taken.

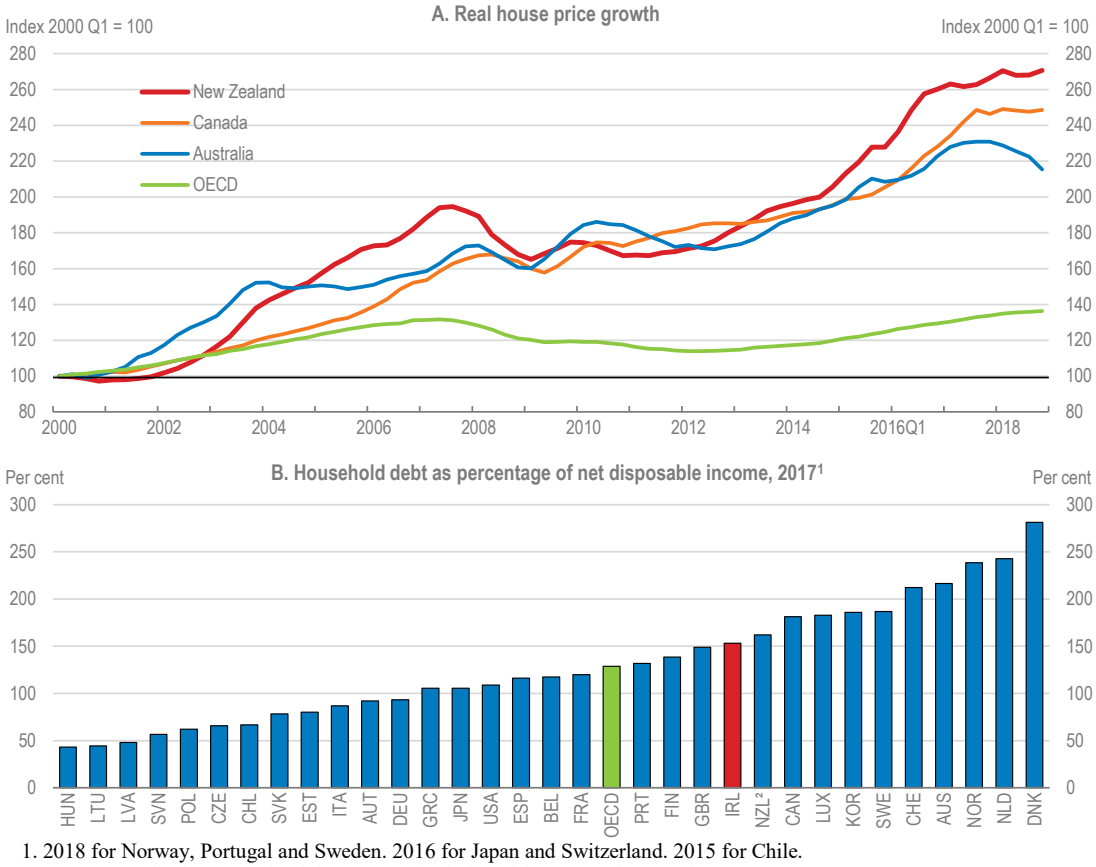
Macroeconomic policies remain expansionary

Sound macroeconomic policies underpin New Zealand's stable economy and make an important contribution to subjective well-being, as downturns have large negative effects on reported life satisfaction of those who become unemployed or fear becoming unemployed (Tella, MacCulloch and Oswald, 2003[9]). A solid macroeconomic framework is also important for sustainable financing of public services critical for well-being, such as health and education. Appropriately given low and stable inflation, the monetary policy interest rate (1.5%) remains well below the neutral rate, estimated by the Reserve Bank to be around 3½ per cent. The term premium has declined over the past year as 10-year government bond yields have fallen, reflecting expectations that policy tightening will occur later than previously thought domestically and flattening of global yield curves, led by the United States where policy rate hikes have not been matched by long-term rates. The RBNZ moved away from a neutral stance in March 2019, noting that its next rate move is more likely to be down than up.

House prices have risen rapidly over almost two decades and so has household debt, which now exceeds the OECD average (Figure 10). Bank lending standards have been tightened since late 2016, reflecting lower risk tolerance (particularly vis-à-vis property developers) and regulatory changes, including in Australia, since Australian-owned banks in New Zealand have been required to reduce their non-equity exposures to their NZ operations.

Tighter lending standards have slowed mortgage credit. Easing population growth, foreign buyer restrictions, extension of capital gains tax to investment properties held for up to five years, relaxation of some planning restrictions and stretched affordability have also contributed to reduce house price inflation over the past two years (with small price falls in Auckland in late 2018 and early 2019). The Reserve Bank has imposed macro-prudential restrictions on loan-to-value ratios since 2013, managing growth/stability trade-offs by relaxing restrictions recently in response to tightening bank lending standards and slower credit and house price growth. Further analysis would be welcome to assess the merits of restrictions on debt-to-income ratios (or, more commonly, on debt servicing), which can complement loan-to-value caps by ensuring households have sufficient income to service their debt (Table 2).

Figure 10. House prices and household indebtedness have increased markedly



1. 2018 for Norway, Portugal and Sweden. 2016 for Japan and Switzerland. 2015 for Chile.
2. Reserve Bank of New Zealand data (2017), including debt on rental properties.
Source: OECD, *Economic Outlook and National Accounts databases*; Reserve Bank of New Zealand.

StatLink https://doi.org/10.1787/888933948796

Table 2. Past OECD recommendations on price and financial stability

Recommendations in past Surveys	Actions taken since the previous *Survey*
Consider implementing bank leverage ratios, permanent deposit insurance and higher capital requirements for too-big-to-fail banks.	The Reserve Bank has proposed to increase the required regulatory level of Tier 1 capital for systemically important banks from 8.5% currently to 16%. As part of this consultation the Bank has also sought views on whether leverage ratio requirements should be included in the New Zealand capital framework. The Treasury and Reserve Bank are consulting on the possible introduction of depositor preference or a deposit insurance scheme as one key topic in Phase 2 of the government's review of the Reserve Bank Act.
Add a debt-to-income limit to the Reserve Bank's macroprudential instruments to increase the resilience of bank balance sheets, with attention to benefits exceeding costs.	The Reserve Bank has relaxed loan-to-value restrictions, so that no more than 20% of bank's total new lending (compared with 10% in 2017) to owner occupiers can now have a deposit of less than 20% and no more than 5% of new lending to housing investors can have a deposit under 30% (40% in 2017). The Reserve Bank has requested that debt-to-income limits be added to its prudential tool kit.

Review of the Reserve Bank Act

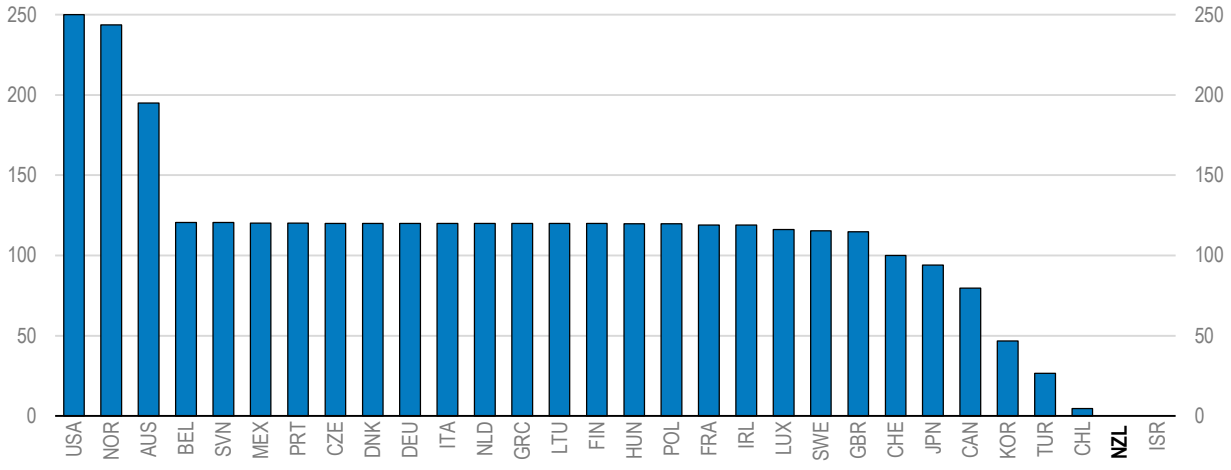
The government has completed the first phase of its review of the Reserve Bank Act. Reflecting the importance of financial and price stability for economic outcomes and therefore well-being, the purpose of the Reserve Bank Act has been clarified to "promote the prosperity and well-being of New Zealanders". A maximum sustainable employment objective has been added to the price stability objective of monetary policy and a Monetary

Policy Committee formed to take over the Governor's decision-making role. A non-voting Treasury observer will be included in the committee to support the coordination of monetary and fiscal policy. While the practice is unusual among OECD countries there is no evidence that it has diminished the independence of the Bank of England or Bank of Japan, and it does not go as far as in Australia, where the Secretary of the Treasury is a voting member.

The second phase will consider the RBNZ's role in financial market regulation, supervision, and crisis management, as well as possible further changes to the Bank's objectives and governance. It will also consider whether to introduce deposit protection insurance, as in all but one other OECD country. Deposit insurance typically serves financial stability as well as consumer protection objectives, with protection limits generally above USD 100 000 (Figure 11). In case of bank failure, deposit insurance would make triggering Open Bank Resolution more credible by protecting depositors up to some specified limit. It would not significantly increase moral hazard, as retail depositors are not well-placed to assess bank failure risks and there is likely an assumption of an implicit guarantee in any case, in part as a consequence of the retail deposit guarantee scheme introduced during the global financial crisis.

Figure 11. New Zealand is unusual in not having deposit insurance

Depositor protection limits, per depositor per institution (thousand USD), as of end 2017



Source: International Association of Deposit Insurers 2018 Annual Survey.

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Proposed increase in bank capital requirements

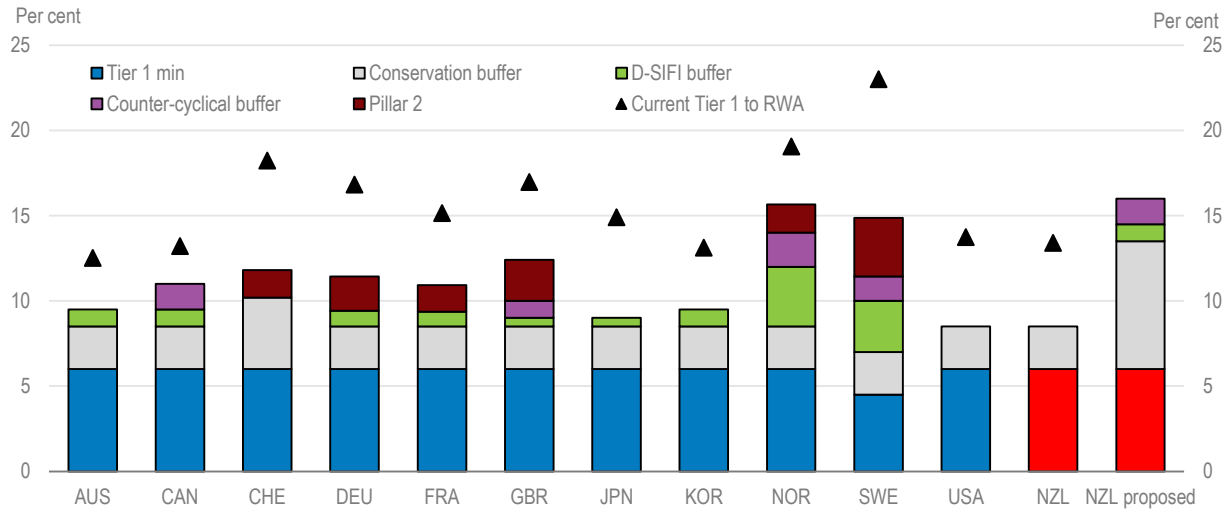
The Reserve Bank in late 2018 proposed a large increase in Tier 1 capital requirements for banks to reduce the risk of failure in a crisis. While international comparability is complicated by differences in asset risk weightings used and different economic context, this would take Tier 1 capital requirements beyond those applying in other OECD countries (Figure 12). The increase in actual capital held will not be as large as the increase in regulatory capital requirements insofar as banks choose to hold smaller discretionary buffers. Higher capital requirements reduce the probability of banks becoming insolvent, lowering the likelihood and expected costs of banking crises. They can also reduce economic activity by increasing lending rates due to a higher cost of funding for banks (albeit offset by the reduced risk of bank equity). The Bank has set its proposed capital

requirements by first limiting the probability of a financial crisis to 1 in 200 years, then considering the trade-off between economic activity and the expected costs from financial crises for any level of capital beyond this.

There is a strong case for higher capital requirements, but considerable uncertainty around the appropriate end point. As New Zealand is a small open economy, the output cost of financial crises is likely to be greater than in larger countries (Furceri and Mourougane, 2012[10]). High levels of household debt also exacerbate risks. Such local contextual factors have been incorporated in quantitative analysis by the RBNZ (2019[11]), which shows substantial uncertainty around "optimal" capital ratios but clear gains from increasing capital to around 12 to 13% of risk-weighted assets (7.5% to 8% of unweighted assets). The Bank's choice of a 1 in 200 year threshold drives its specific proposal for capital requirements, which is well above what it had previously advocated (RBNZ, 2012[12]). The Bank, which completed public consultation on its proposal in May 2019, should proceed with higher capital requirements as warranted by its forthcoming cost-benefit analysis. The effect on lending spreads, bank credit availability and credit activity pushed outside the banking sector (to credit unions, for example) needs to be carefully monitored.

Figure 12. Proposed new capital requirements exceed those in other OECD economies

Tier 1 capital requirements, as a percentage of risk-weighted assets



Note: For banks judged to be domestically systemically important but not globally systemically important. D-SIFI (domestically systemically important financial institution) buffer is the average across banks to which it currently applies. Pillar 2 requirements are averaged across systemically important banks where data are available. For Switzerland, Pillar 2 requirements are based on the highest total capital required among non-globally systemically important banks. For Sweden, data are based on common equity tier 1 requirements averaged across the three major banks. For Australia, APRA will require major Australian banks to hold 10.5% Core Equity Tier 1 capital by 1 January 2020 and is currently proposing further increases in total capital requirements for major banks. Rules on risk weighting of assets vary across countries.

Source: Bank of England; European Systemic Risk Board; Australian Prudential Regulation Authority; Bank for International Settlements; The Office of the Superintendent of Financial Institutions (Canada); Financial Services Agency (Japan); Norges Bank (Norway); Financial Services Commission (Korea); Finansinspektionen (Sweden); and FINMA (Switzerland).

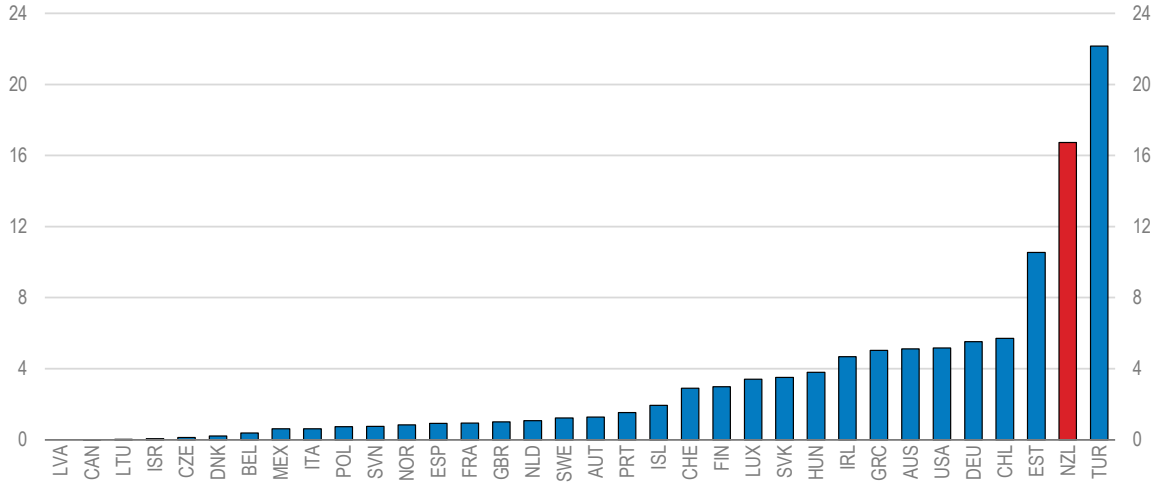
StatLink https://doi.org/10.1787/888933948834

The Financial Markets Authority and Reserve Bank together undertook conduct and culture reviews of New Zealand banks and life insurers in 2018. The regulators concluded that there were no widespread misconduct or poor culture issues across banks. However, they found extensive weaknesses in life insurers' systems and controls, with a lack of focus on

good customer outcomes (particularly where sales occur through intermediaries), inappropriate sales incentive structures and poor remediation of known issues. Also, high commissions reduce the affordability of life insurance (Figure 13). The regulators concluded that the overall standard of both banks' and life insurers' approaches to identifying, managing and dealing with conduct risk needs to improve markedly.

Figure 13. Life insurance commissions are high

Commissions as a share of gross premium revenue, 2017



Note: 2015 data for Canada, Estonia, France, Greece, Iceland, Israel, the Netherlands, Slovakia and the United Kingdom.
Source: OECD, *Finance and Insurance Statistics database.*

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Fiscal policy is set to tighten

Fiscal policy became expansionary in 2018 due to a pick-up in infrastructure and health spending, free tuition for the first year of tertiary education, and increased transfer payments to students and families. The fiscal stance is projected to remain expansionary in 2019, broadly neutral in 2020 and become moderately contractionary from 2021 as spending slows in the absence of substantial further discretionary measures, allowing tax receipts to catch up as economic growth continues (Table 3).

Fiscal policy is on a sustainable path, with government debt low and set to decline as a share of GDP. Even under an adverse scenario for economic growth and interest rates, and with the fiscal balance falling to neutral, general government debt would remain roughly stable to 2040 (Figure 14). New Zealand has a relatively young population, but in line with the OECD average the old age dependency ratio is projected to nearly double by 2060, increasing fiscal pressures through slower revenue growth and greater healthcare and pension expenses. The government puts great store on the country's reputation for fiscal prudence and has set a target of reducing net core Crown debt to 20% of GDP by 2022. As a small economy highly exposed to global shocks and natural disasters, and with challenges ahead from an ageing population, such a strategy is wise. The government has announced a net debt target range of 15% to 25% of GDP after meeting its 20% target, subject to any significant shocks to the economy. Policy recommendations in this *Survey* will have little effect on the overall fiscal balance (Box 1). The government is currently working towards establishing an Independent Fiscal Institution, as recommended in the 2017 Survey (Table 5).

Table 3. The fiscal stance is projected to become contractionary

Per cent of GDP (except where noted)

	Actual	Projections				
	2017/18	2018-19	2019-20	2020-21	2021-22	2022-23
Core Crown tax revenue	27.8	28.2	28.2	28.5	28.6	28.8
Core Crown expenditure	27.9	29.1	29.4	29.6	29.0	28.8
of which: Social security and welfare	9.0	9.7	9.8	9.7	9.6	9.5
Health	5.9	6.1	6.1	5.7	5.5	5.3
Education	4.7	4.8	4.7	4.6	4.4	4.3
Capital spending	2.0	2.2	2.9	2.6	2.4	2.2
Core Crown balance[1,2]	-0.1	-0.9	-1.3	-1.1	-0.4	0.0
Total Crown balance[1,2]	1.9	1.2	0.4	0.6	1.3	1.7
Cyclically adjusted total crown balance	1.6	1.1	0.3	0.4	1.2	1.7
Fiscal impulse (core Crown plus Crown entities)[3]	0.3	1.1	0.0	-0.2	-0.6	-0.5
Net core Crown debt	19.9	20.1	20.4	20.7	19.9	18.7
Gross core Crown debt	30.5	27.8	27.4	26.5	27.6	25.3
General government net lending (+) or borrowing (-)	1.2	0.5	-0.5	0.2	0.9	1.5
equal to: central government net lending[4]	1.3	0.6	-0.4	0.3	1.0	1.5
plus local government net lending[5]	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Memorandum items (Treasury projections)						
Real GDP growth (production based)	3.2	2.4	3.0	2.8	2.4	2.4
Nominal GDP growth (expenditure based)	5.7	3.8	5.8	5.4	4.9	4.7
CPI (annual per cent change)	1.5	1.8	2.0	2.1	2.0	2.0
Ten-year government bond (per cent)	2.8	1.9	2.3	2.5	2.7	2.9

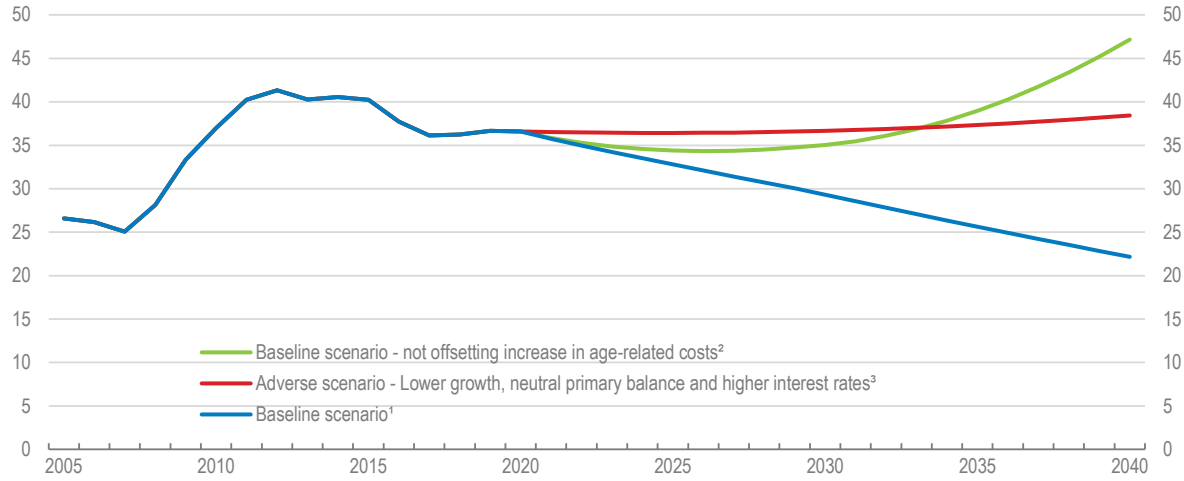
1. Core Crown includes government departments, offices of parliament, the New Zealand Superannuation Fund and the Reserve Bank. Total Crown consists of core Crown plus Crown entities (such as the Accident Compensation Commission and Callaghan Innovation) and State-owned enterprises.
2. Based on operating balance before gains and losses.
3. Excluding Earthquake Commission and Southern Response payments and receipts related to the Canterbury and Kaikoura earthquakes.
4. Based on GFS projections from the May 2018 Budget Update adjusted for changes to the total Crown balance between the Budget Update and the Half Year Fiscal Update.
5. Estimates based on a continuation of the 2017/18 deficit (Stats NZ, 2018).

Source: Treasury (2018) *Half Year Economic and Fiscal Update*; OECD calculations based on Stats NZ (2018), *Government Finance Statistics (General Government): Year Ended June 2018*; Stats NZ (2018), *National accounts (income and expenditure): Year ended March 2018*, and Treasury (2018) *Budget Economic and Fiscal Update.*

The government created the Tax Working Group in late 2017 to consider the future of tax in New Zealand. Its terms of reference put several issues outside the scope of review, including increasing any income tax rate or the rate of goods and services tax, inheritance tax, and any tax on the family home. The Group highlighted the important role of the tax system in supporting well-being through fair and efficient sourcing of revenue, redistribution, and influencing behaviour. The majority of the Group's members recommended a broad expansion of the taxation of capital gains, excluding the family home as per the terms of reference. A capital gains tax was subsequently ruled out by the government. The OECD has previously recommended introducing a comprehensive capital gains tax (Table 5), which would offer several benefits but with some costs (Table 6). Exempting the family home would mean that any reduction in house prices would likely be small (accompanied by higher rents) and would strengthen incentives to direct savings towards the family home. Along with any other exemptions (for example, exemptions for farms and small businesses were discussed) this would reduce the benefits from capital gains taxation. The Group also recommended expanding the coverage and rate of the Waste Disposal Levy, strengthening the Emissions Trading Scheme and advancing the use of congestion charging for roads.

Figure 14. Government debt is sustainable, but ageing will increase fiscal pressures

Simulations of gross general government debt as a percentage of GDP



1. The baseline scenario builds on the OECD Economic Outlook projections for general government debt to 2020, as reported in Table 8. Real GDP growth is set equal to potential from 2021, based on OECD long-term projections and the median Stats NZ population projection. From 2021, the primary balance and GDP deflator are set at 0.72% of GDP (based on the 2020 forecast) and 2.0 respectively. The average interest rate on government debt converges linearly to the Treasury's estimate of the 2040 risk-free forward rate (3.51%).
2. The baseline scenario with no offsetting of age-related costs has the primary balance worsening by 0.11 percentage points per year to 2030 and by 0.18 percentage points per year thereafter, based on the "historical spending patterns" projection for non-financing expenses and revenues from the 2016 Statement on the Long-Term Fiscal Position.
3. The adverse scenario has real GDP growth around 0.5 percentage points lower at 2.0%, a neutral primary balance and linear convergence to the Treasury's long-term risk free interest rate of 4.75%.
Source: Y. Guillemette and D. Turner (2018), "The Long View: Scenarios for the World Economy to 2060", *OECD Economic Policy Paper*, No. 22; OECD (2019), *Economic Outlook 105 database*; Stats NZ (2016), *National Population Projections: 2016–2068*; Treasury (2019), *Discount Rates and CPI Assumptions for Accounting Valuation Purposes*; Treasury (2016), *2016 Statement on the Long-Term Fiscal Position*.

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Box 1. Quantifying this *Survey's* fiscal recommendations

Table 4 quantifies the approximate net general government budgetary impact of the recommendation to increase social housing provision. Other recommendations are not quantified because they involve transfers between different levels of government or programmes (other housing recommendations) or very small expenditures (expansion of mentoring, English language and bridge programmes for immigrants).

Table 4. Potential annual long-term fiscal effect of OECD recommendations

	% of GDP	NZD million per year
Increase social housing provision	0.01	33

Note: Increase in social housing provision based on the long-term annual cost of 1 922 new units, as required in addition to the 6 400 new units planned over the next four years to meet demand from Priority A applicants on the waiting list as at December 2018. Cost per social housing unit based on MSD (2017[13]).

Table 5. Past OECD recommendations on fiscal policy and taxation

Recommendations in past Surveys	Actions taken since the previous *Survey*
Bring forward the increase in the pension age from 65 to 67, lengthen the transition period and then index the pension age to life expectancy.	The government has announced that the age of eligibility is to remain 65.
Gradually reduce net public debt in line with the government's fiscal strategy. Increase spending that enhances well-being and reduce taxes within the constraints of this strategy.	Net public debt continues to decline. Some new expenditure has failed to improve well-being as much as possible due to poor targeting: Winter Energy Payments are not means tested for those aged 65 and over; free tertiary education favours more advantaged socio-economic groups; and KiwiBuild delivers the greatest benefits to people who can afford to buy their own home.
Create an Independent Fiscal Council, focused on providing policy advice and analysis on the fiscal stance.	The government has consulted on its proposal to establish an Independent Fiscal Institution that would provide independent evaluation of fiscal policy performance, support parliamentary scrutiny of public finances and provide independent costings of political party policies.
Undertake a tax review that considers corporate and personal income tax settings and potential new tax bases.	The final report of the Tax Working Group was released publicly in February 2019.
Eliminate the double-taxation of trans-Tasman profits distributed to shareholders by continuing to work towards agreement with Australia on mutual recognition of imputation and franking credits for foreign investment.	No action taken.
Implement a capital gains tax and boost environmental and property or land taxes to facilitate a more efficient and equitable tax structure.	The capital gains tax on investment properties has been extended from those held for less than two years to those held for less than five years.
Consider limiting KiwiSaver tax credits to low-income members. Extend automatic enrolment to all existing employees. Change the investment strategy for default funds to a life-cycle approach that is adapted to the member's age.	No action taken.

Table 6. Key pros and cons of a broad-based capital gains tax

Based on a capital gains tax on realisation with no indexation for inflation

Advantages	Disadvantages
Increase progressivity of the tax system	Inefficient lock-in due to incentive to hold on to assets to avoid paying capital gains tax
Improve horizontal equity by taxing income whether it is earned on capital gains or otherwise	Taxes accrue on nominal as well as real gains[1]
Improve efficiency through reducing tax-driven incentive to make investments in assets that provide capital gains rather than income, in particular housing	In the absence of other tax changes, can discourage saving and investment through reducing post-tax returns, particularly if there are strict limits around relief for capital losses
Reduce incentive to shelter income from tax by transforming ordinary income into capital gain	Taxing gains on shares has potential for some double taxation of retained profits on which company tax has already been paid[2]

1. This is a feature of a nominal tax system more broadly and is more important for taxation of interest-bearing assets. Because capital gains taxed on realisation benefit from deferral of tax payments, real after-tax gains increase over time and thus capital gains are less affected by taxation of nominal gains than are interest-bearing assets (Burman, 2009[14]).
2. Retained profits are not subject to full double taxation to the extent that there is a value placed on unused imputation credits that can be used for future dividends, as this value will be capitalised into the value of the company and thus increase capital gains (Burman and White, 2009[15]). New Zealand companies can also avoid double taxation of retained earnings through a taxable bonus issue (Tax Working Group, 2019).
Source: OECD (2017), *OECD Economic Surveys: New Zealand*.

The government plans labour market reforms to increase low-paid workers' wages

Minimum wages

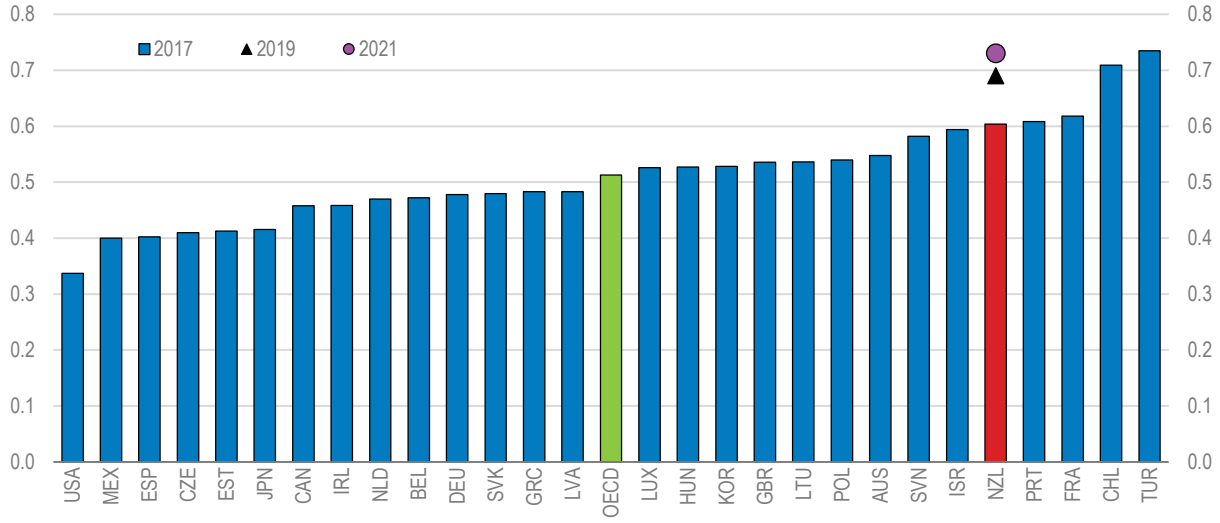
Increasing minimum wages is one of the pillars in the government's Workplace Relations Package aimed at increasing low-paid workers' earnings. The government plans to raise the minimum hourly wage progressively by 21% by 2021 from the 2018 rate (NZD 16.50), increasing the minimum wage relative to median wages by 7% from a starting point that is already one of the highest in the OECD (Figure 15). Planned annual increases are subject to each year's annual review, which will take into account economic conditions at the time. The New Zealand Treasury (2017[16]) estimates that the additional increase in the minimum wage relative to unchanged policy (7% to NZD 17.60) will increase the share of hours worked at the minimum wage from 8% currently to 19% by 2021, reduce total hours worked by 0.4% (assuming an elasticity of labour demand with respect to wages of -0.3), add 1.6 percentage points to wage growth over 2018–21, and leave potential GDP around a net 0.2% lower by 2021. Aggregating effects on multifactor productivity, capital intensity and the employment rate, OECD country panel analysis suggests a 0.3% reduction in GDP per capita after two years, rising to 1.8% in the long term owing to lower youth- and prime-age female employment rates, groups which have a higher proportion of low-wage workers than the other groups considered (prime-age men and older workers) (Égert and Gal, 2017[17]). These estimates are based on average policy effects obtained across OECD countries. Effects in New Zealand may differ significantly from the OECD average. Based on a review of the evidence, OECD (2015[18]) concludes that the impact of moderate minimum wage hikes on employment tends to be small, although effects on some vulnerable groups – such as youth – may be more negative, although these conclusions remain controversial (OECD, 2018[19]). Again, outcomes could be different in New Zealand.

The boost to the minimum wage has well-being trade-offs: it will increase wages for the low paid, and so narrow the market income distribution; but it may also worsen poverty for other people to the extent that it forces them out of work. Based on international evidence, high minimum wages, as in New Zealand, do indeed reduce wage inequality, but less so over the long run owing to the possibility of mobility in and out of employment and up and down the wage ladder (OECD, 2015[18]; OECD, 2018[19]). However, the minimum wage hike risks reducing employment opportunities for youth, particularly as lower minimum wages for new entrant youth are so short-lived (an employer can only pay the youth minimum wage during the first six months of an employment contract) and subject to qualification rules (concerning age, employment and social benefit history, and training requirements) that are so complicated that in most cases employers choose simply to pay the adult minimum wage. During the last period when real minimum wages increased markedly for youth (122.8% for teenagers and 32.9% for adults between 1999 and 2008), the unemployment rate for the young (15-24 years old) rose from 2.9 times that for working-age adults (25-64 years) in 2000 to 4.1 times the adult rate in 2008. Over the same period, this relative unemployment rate barely increased in OECD countries on average and was considerably lower (2.3 in 2000, 2.5 in 2008) than in New Zealand. Based on data for this last period of substantial increases in real minimum wages in New Zealand, Maloney and Pacheco (2012[20]) estimate that a 10% increase in minimum wages lowers the 50% relative poverty rate by less than 0.1 percentage point, even in the absence of a decline in hours worked. This is because many low-income households do not have any working members and many minimum wage workers do not live in poor households.

Moreover, poor households with children would not benefit because the Minimum Family Tax Credit has an effective marginal tax rate of 100% (MBIE, 2018[21]). The rather limited effects of minimum wages on reducing poverty in New Zealand are consistent with findings in other countries OECD (2018[19]).

Figure 15. The minimum wage is high relative to the median wage

Minimum wage relative to median wage of full-time workers



Source: Stats NZ; OECD, *Labour Earnings database*.

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Fair Pay Agreements

Another plank in the Package is to increase wages by strengthening worker bargaining power through the introduction of Fair Pay Agreements (FPAs) for workers in low-paid occupations or sectors. The Fair Pay Agreement Working Group (2018[22]) was established to advise the government on the implementation of FPAs, and has reported back but decisions about the design of the regime are still to be finalised. FPAs would allow representatives of employers and workers from a specific industry or occupation to agree a set of minimum employment terms and conditions exceeding legislated minima (such as the minimum wage and minimum leave entitlements) that would apply to all workplaces, whether or not the employer or employees were party to the negotiation process (all parties operating in the sector at the time of bargaining would have had an opportunity to be represented in bargaining). The Working Group recommends that the FPA bargaining process should only be initiated by workers or their union representatives and be subject to a representativeness trigger – in any sector or occupation, at least 1000 workers or 10% of workers can initiate negotiations – or a public interest trigger (to eliminate harmful labour market conditions). Where bargaining parties reach agreement, the Working Group recommended that ratification by a simple majority of both employers and workers would be required for it to enter into force. In other cases, a tribunal would determine the terms of the agreement and ratification would not be required. For workplaces covered by FPAs, enterprise agreements (including individual employment contracts) could only include more favourable employee conditions than in the relevant FPA. In the OECD's taxonomy of collective bargaining systems, FPAs correspond to predominantly centralised bargaining systems, where sector-level agreements play a strong role and extensions are widely used,

or organised decentralised if there is significant room for lower-level agreements to set the standards (OECD, 2018[23]).

If agreed, this reform could potentially represent a major break from New Zealand's current system, which is classified as fully decentralised, with bargaining essentially confined to the enterprise level, as in Canada, the United Kingdom, the United States and ten other OECD countries. New Zealand has few employer organisations with existing capability to negotiate at sector or occupational level and trade union density is only 18%.

As there is considerable uncertainty about the design and coverage of the regime, there is also considerable uncertainty about the effects of such a reform. Based on cross-county evidence, OECD (2018[23]) suggests that it could increase employment and reduce wage inequality for full-time employees but cut both lower labour- and multifactor productivity growth in the covered sectors (OECD, 2017[24]). This latter result suggests that lower flexibility at firm level, which characterises centralised bargaining systems, may result in lower productivity growth. The OECD Economics Department's structural reform quantification simulator suggests that the reform would reduce GDP per capita in the long run, the more so the greater of extension of agreements (Égert and Gal, 2017[17]).

OECD (2018[23]) suggests that organised decentralisation (Traxler, 1995[25]) may deliver better employment and wage inequality outcomes without lower productivity. Organised decentralisation within the framework of sector-level agreements allows for elements of working conditions and organisation to be determined at company or individual level under certain conditions. One such model, which is widespread in the Netherlands and may also be more suitable for New Zealand than others, is *à-la-carte*, in which working conditions are not set by a company agreement but by individual workers. They have the option to exchange, within pre-defined limits, wages, working time and free time. Other models, predicated on multi-level bargaining and strong local representation (or extensions), are unlikely to be suitable for New Zealand owing to the prevalence of SMEs, where enterprise-level bargaining mainly occurs with individual workers.

As sector-level agreements that also cover small and medium-sized businesses, FPAs could help spread best practices in terms of personnel management, training, health and safety, technology usage, insurance, or retirement packages (OECD, 2019[26]). In this regard, FPAs could play a significant role in enhancing labour market security and strengthening workers' labour market adaptability (OECD, 2018[23]). As evolving demands for products and services as well as technological change are quickly affecting skills needs, the social partners could provide active support to workers displaced from their existing jobs to help them back into good jobs (OECD, 2019[26]), in line with past *Survey* recommendations to enhance support for displaced workers (Table 7).

Pay equity

The Package also seeks to enhance gender pay equity and hence contribute to reducing the gender wage gap, which although smaller than in most other countries is still 7.2% for full-time employees (see Figure 19, Panel A). To this end, a Bill to facilitate pay-equity claims is before Parliament. Pay equity compares jobs usually done by women with different jobs usually done by men with a view to setting equal pay for work of equal value, which is determined by the skills and qualifications, amongst other things, needed to do the jobs. It differs from equal pay legislation, which requires that people doing the same job be paid the same, regardless of gender; New Zealand passed such legislation for the public sector in 1960 and the private sector in the Equal Pay Act 1972. In 2014, the Court of Appeal found that the Equal Pay Act provided for pay equity. The Bill before Parliament would

enable women to make a claim through the simpler and more accessible process to be implemented through an amendment to the Equal Pay Act, rather than having to resort to court action in the first instance. The increase in wage costs from pay equity settlements may result in a small rise in the unemployment rate.

There is much uncertainty about the extent of negotiated back pay or any potential award of back pay. Parties are free to negotiate whether or not back pay should be part of a pay equity settlement. A potential award of back pay can only be considered by a court if it is making a determination to fix terms and conditions and once all other reasonable alternatives to resolve the dispute have been exhausted. In deciding whether to award back pay, or the amount to award, the court must consider certain discretion factors, including the 'ability of the employer to pay'.

The Bill currently limits back pay to the date the claim was raised, if a claim was raised within the first five years of enactment. If the claim was raised later on, back pay can be awarded to the date of the five-year anniversary of enactment. For claims made before enactment, back pay may be awarded back to the date the claim was raised. In the OECD's view, the ability of the court to award back pay should be limited to the period after the new law comes into effect, as occurred for the pay equity settlement for care and support workers legislated in 2017, to avoid a negative financial impact on some small businesses that paid the market wage in good faith.

Table 7. Past OECD recommendations on labour markets

Recommendations in past Surveys	Actions taken since the previous *Survey*
Consider introducing unemployment insurance or, alternatively, longer notice periods and mandatory notification of layoffs. Also consider expanding training, guidance and counselling for displaced workers.	The government is considering the Welfare Expert Advisory Group's recommendations on reforming New Zealand's social support system to ensure that people have adequate incomes and can participate in their communities. The Group's terms of reference include adapting social support to changing family structures and the changing labour market. The Ministry of Business, Innovation and Employment has initiated cross-government work on improving support for helping displaced workers, looking across all the feasible levers.
Increase tertiary-sector responsiveness to labour market needs by formalising linkages between providers and employers, and directing funding to projected areas of skills shortfall, including better targeting of course offerings by providers and merit- and needs-based scholarships.	The government has initiated a review of the vocational education and training (VET) system to strengthen it. To this end, the review will make recommendations to make VET more attractive to learners, more responsive to employers and industry and more capable to respond well to changes in the external environment.
More frequently update immigration skills shortage categories to reduce labour market bottlenecks.	Changes were made in 2017 to Essential Skills visa settings to better assess skills levels. Australia and New Zealand Occupational Skills Categories are being reviewed. The government plans further reforms to the temporary work visa process to ensure that identified regional skills shortages trigger responses in the VET and welfare systems.

Economic growth is projected to remain around potential

Economic growth is projected to remain around 2½ per cent in 2019 and 2020 (Table 8). Consumption is set to slow as net migration falls and the effect of higher transfer payments through the Families Package fades, outweighing wage growth from minimum wage hikes, pay equity decisions and public sector wage awards. Residential and business investment will expand to meet housing shortages, and capacity constraints respectively. Global economic growth has peaked, with headwinds from trade tensions and tighter financial conditions, so external demand growth is expected to be weaker and net exports to ease. A tightening fiscal stance will be less supportive of growth in 2020.

Table 8. Macroeconomic indicators and projections

Annual percentage changes unless specified, volume (2009/10 prices)[1]

	2015 Current prices (NZL billion)	2016	2017	2018	2019	2020
Gross domestic product (GDP)	**250**	**4.2**	**2.6**	**2.8**	**2.6**	**2.5**
Private consumption	144	5.4	4.7	3.3	3.4	2.5
Government consumption	46	2.0	2.9	2.2	2.1	1.4
Gross fixed capital formation	57	4.3	3.5	3.8	2.0	3.2
Housing	17	10.1	0.0	2.2	4.9	4.9
Business	26	3.3	6.1	3.5	-0.2	3.4
Government	15	-0.5	3.2	6.5	6.0	1.0
Final domestic demand	248	4.5	4.1	3.2	2.8	2.5
Stockbuilding[2]	1	0.1	-0.2	0.4	-0.7	0.0
Total domestic demand	248	4.6	3.9	3.6	2.1	2.5
Exports of goods and services	70	2.1	1.8	3.0	2.4	2.9
Imports of goods and services	68	3.4	6.9	5.5	0.0	3.1
Net exports[2]	2	-0.3	-1.3	-0.6	0.6	0.0
Other indicators (growth rates, unless specified)						
Potential GDP	. .	3.0	3.0	2.9	2.7	2.5
Output gap[3]	. .	0.6	0.2	0.1	0.2	0.2
Employment	. .	4.6	4.2	3.0	1.0	1.1
Working-age population (15-74)		2.1	2.0	1.5	1.3	1.2
Unemployment rate[4]	. .	5.1	4.7	4.3	4.2	4.3
GDP deflator	. .	1.8	3.5	1.1	1.4	2.1
Consumer price index	. .	0.6	1.9	1.6	1.5	2.1
Core consumer prices[5]	. .	1.4	1.4	1.2	1.6	2.0
Household saving ratio, net[6]	. .	0.1	-1.4	-1.0	-1.0	-0.9
Terms of trade		2.1	5.0	-1.7	-0.4	0.3
Trade balance[7, 8]	. .	1.0	1.0	-0.1	0.4	0.5
Current account balance[7]	. .	-2.2	-2.9	-3.7	-2.9	-2.7
General government fiscal balance[7]	. .	1.2	1.1	0.1	-0.4	0.1
General government gross debt [7, 9]	. .	37.7	36.2	36.3	36.6	36.5
General government net debt[7, 9]	. .	3.3	0.8	0.2	0.5	0.4
Three-month money market rate, average	. .	2.3	2.0	1.9	1.7	1.7
Ten-year government bond yield, average	. .	2.8	3.0	2.8	1.9	2.0

1. Projections do not incorporate the 2019 Budget, which was released after the May 2019 Economic Outlook.
2. Contribution to changes in real GDP.
3. As a percentage of potential GDP.
4. As a percentage of the labour force.
5. Consumer price index excluding food and energy.
6. As a percentage of household disposable income.
7. As a percentage of GDP.
8. Goods and services.
9. National Accounts basis excluding unfunded liabilities of government-employee pension funds.

Source: OECD, *OECD Economic Outlook 105 database*.

The main domestic risk is a housing market correction, although housing shortages (unlike in Australia) make a large-scale correction unlikely absent developments external to the housing market, such as an increase in unemployment or interest rates. Amplifying the potential effects of interest rate hikes, two thirds of outstanding mortgage balances are scheduled to be repriced within the next year. Further weakness in the Australian housing market is a risk, given strong economic and financial links and the historical tendency for the Auckland market to follow developments in Australia. Rising trade restrictions internationally could have substantial repercussions for New Zealand as a small open

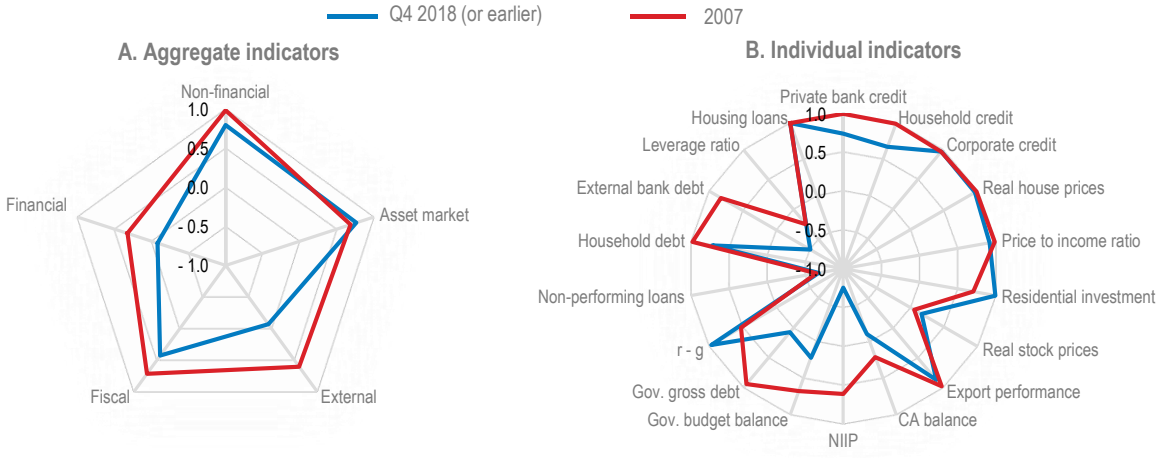
economy without a large domestic market and heavily exposed to international commodity prices. New Zealand is also exposed to some additional lower-probability severe events (Table 9). Conversely, growth would be higher if net immigration declines less than assumed, particularly if this triggered a resumption of wealth gains through house price growth, or if business investment recovers more quickly than anticipated as businesses seek to address capacity constraints. Macro-financial vulnerabilities are generally lower than those observed at the end of the last expansion in 2007 (Figure 16), although the housing boom has meant that risks associated with high house prices and household debt remain elevated.

Table 9. Possible severe shocks affecting the New Zealand economy

Shock	Possible impact
Sharp slowdown in China	Economic growth in China has eased. While there are signs that growth is now stabilising under the effect of policy stimulus measures, substantial risks remain around the potential for further trade restrictions, notably between the United States and China, and elevated levels of non-financial corporate debt. A slowdown in China would push down prices for New Zealands agricultural commodity exports, reducing economic well-being through a decline in the terms of trade. Weaker tourism and education demand would weigh on service exports. An unexpected slowdown in China would impact New Zealand indirectly through its adverse effect on global growth and trade. In particular, demand from Australia would weaken due to that countrys strong trade and financial links with China.
Natural disasters	The probability of large aftershock earthquakes in regions affected by the 2016 Kaikoura and 2010-11 Canterbury earthquakes continues to decline. Nevertheless, the probability of a magnitude 7 or higher earthquake affecting Central New Zealand in the next decade is still estimated at between 10% and 60% (Earthquake Commission, 2019[27]). Natural disasters can cause significant loss of life, disruption of economic activity, destruction of capital and longer-term challenges for public and private financing.

Figure 16. Macro-financial vulnerabilities are generally lower than at the end of the last expansion

Index scale of -1 to 1 from lowest to greatest potential vulnerability, where 0 refers to long-term average



Note: Each aggregate macro-financial vulnerability indicator is calculated by aggregating (simple average) normalised individual indicators. Non-financial includes: private bank credit, household credit and corporate credit. Asset market includes real house prices, price to income ratio, residential investment and real stock prices. External position includes the current account (CA) balance as a percentage of GDP, export performance and net international investment position (NIIP) as a percentage of GDP. Fiscal includes r - g (interest rate minus expected growth) government budget balance and government gross debt, both expressed as a percentage of GDP. Financial includes household debt, the share of non-performing loans in total loans, external bank debt as percentage of total banks' liabilities, housing loans, and capital and reserves as a proportion of total liabilities (leverage ratio).
Source: OECD calculations based on Refinitiv; OECD, Economic Outlook database; Reserve Bank of New Zealand; Stats NZ.

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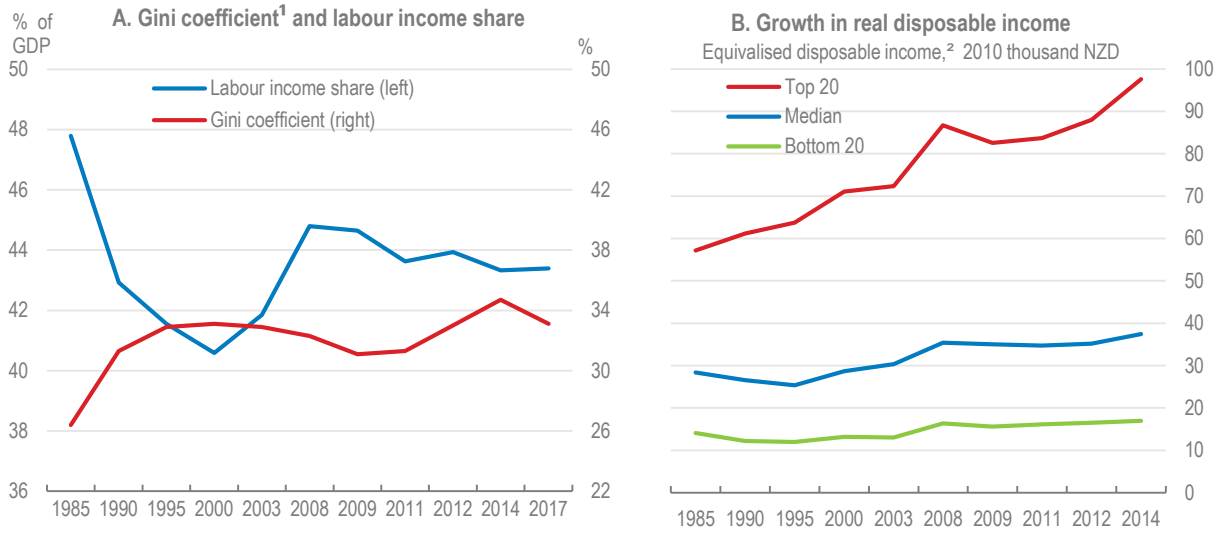
Well-being policy challenges

Well-being outcomes for some groups lag behind those for others

While well-being is high on average, outcomes are unevenly distributed. Income inequality grew markedly between the mid-1980s and mid-1990s and, following a period of stability, has increased somewhat in recent years (Figure 17, Panel A). High-income households have enjoyed faster income growth than median-income households, which in turn have enjoyed higher income growth than low-income households (Panel B). Disposable income inequality now exceeds the OECD average, even though market income inequality is in line with the average, reflecting below-average redistribution through taxes and transfers (Figure 18, Panel A). The income distribution is more skewed towards high-income households than in most other OECD countries (Panel B). The labour share of national income fell sharply in the decade to the mid-1990s but has increased since the turn of the century, partially reversing the earlier decline (Figure 17, Panel A). Household net wealth, which on average is among the highest in the OECD, is skewed towards the wealthy: the top 10% of households account for about 53% of household net worth, a level similar to that in Canada and France but somewhat higher than in Australia and the United Kingdom and much lower than in the United States (OECD, 2017[28]).

The relative poverty rate (the share of households with incomes less than 50% of the median) is below the OECD average (Figure 18, Panels C and D) but higher for Māori and Pasifika peoples and in certain regions, often those where a large proportion of the population is Māori or Pasifika. Similarly, while the child poverty rate is close to the OECD average, it is higher for certain groups – sole-parent or jobless households and Māori and Pasifika.

Figure 17. Income inequality has increased since the mid-1980s



1. Gini coefficient after taxes and transfers relative to those aged 18-64 years old. Data for 2017 is from the Household Economic Survey of Stats NZ.
2. Households' real annual equivalised disposable income is calculated as the income of each household adjusted by the square root of household size. The top 20% income share and the bottom 20% income share are reported. This differs from the approach taken in the LSF Dashboard, which reports income by percentiles.
Source: OECD, *Income Distribution and Poverty database;* OECD calculations and Stats NZ.

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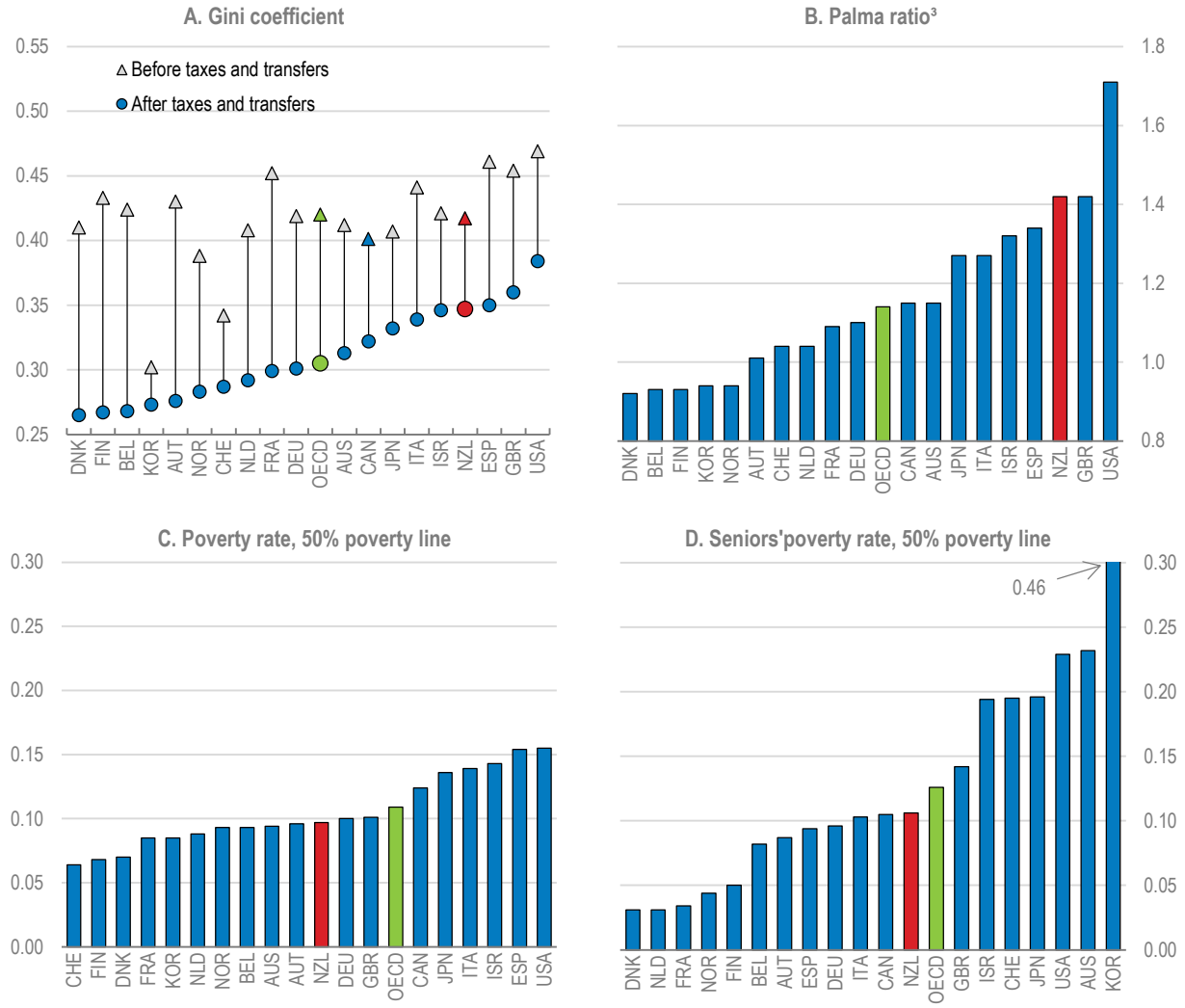
Figure 18. Income inequality is above the OECD average and relative poverty rates are below[1]

2016 or latest available year[2]



1. Working-age population in Panels A, B and C. Population over 65 in Panel D.
2. 2014 data for the OECD aggregate.
3. Ratio of income of the top 10% to income of the bottom 40%.

Source: OECD, Income Distribution database, http://www.oecd.org/els/soc/income-distribution-database.htm.

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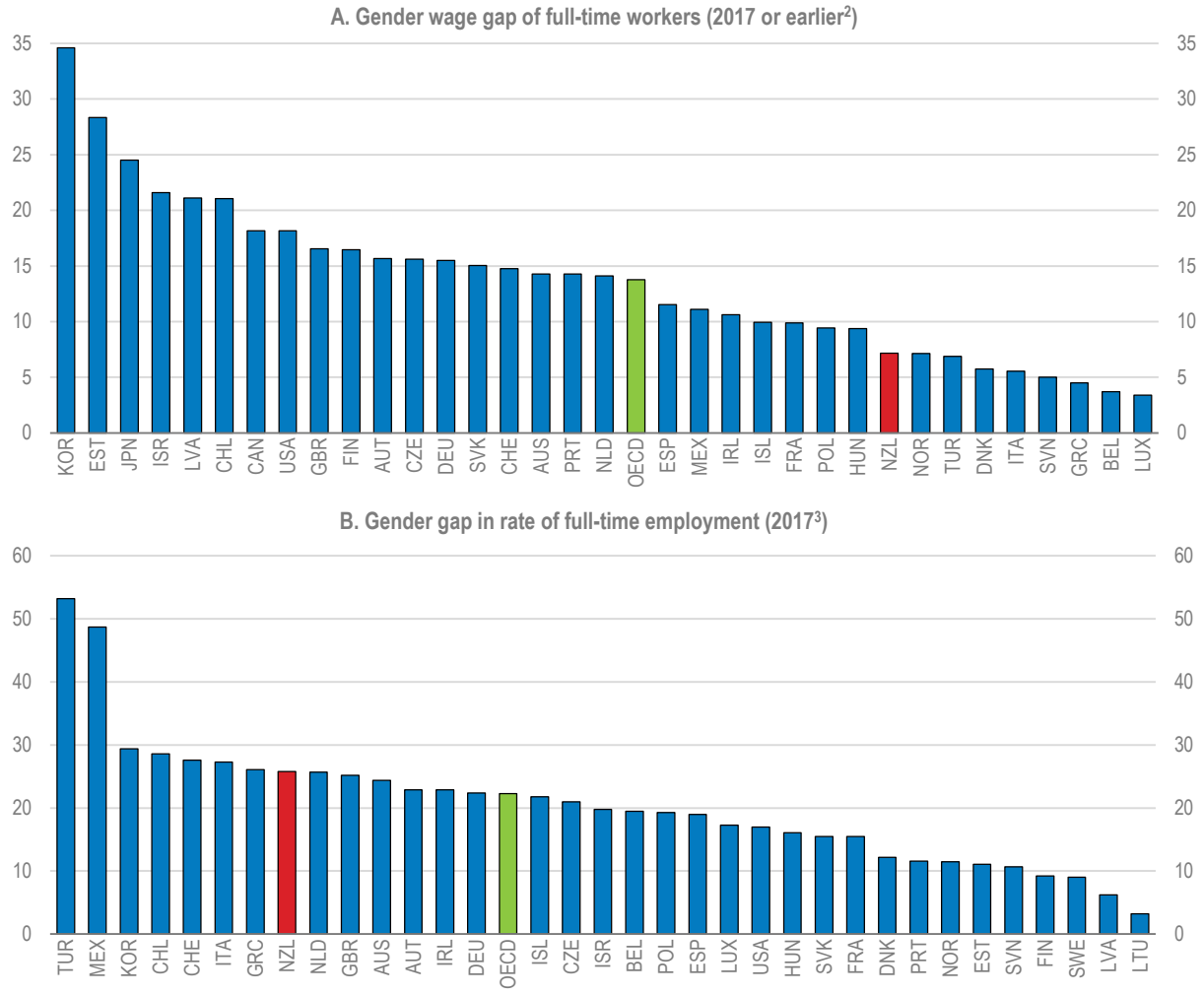
Full-time female workers in New Zealand earn 7% less on average than their male counterparts, one of the lowest gender wage gaps in OECD countries (Figure 19, Panel A). While the gender employment rate gap is smaller than the OECD average, the gender full-time employment gap is greater (Panel B), reflecting the prevalence of part-time female employment.

Inequalities in well-being also abound in education, health and housing. Māori and Pasifika education achievement remains below that of the rest of the population (Figure 20, Panel A) and the influence of socio-economic background on students' cognitive skills remains higher than in most other countries (Panel B). While substantial progress was made in

reducing the gap in life expectancy between Māori and non-Māori during the three decades to the mid-1980s, the gap widened sharply in the decade to the mid-1990s and has only declined modestly since then (Figure 21, Panel A). Much of the widening of the gap was due to increasing inequality in socioeconomic factors such as incomes, education, car access and housing tenure (Blakely et al., 2007[29]). Māori and Pasifika life expectancy is considerably lower than for the rest of the population (Panel B) and amenable mortality (*i.e.*, premature deaths that could potentially be avoided given effective and timely healthcare) rates for Māori and Pasifika are 2.5 times higher than for others (Ministry of Health, 2017[30]). A contributing factor is higher infant mortality for Māori at 4.9 per 1 000 live births, compared with 3.8 for the population as a whole (Stats NZ, 2019[31]).

Figure 19. The gender gap is low for wages but high for employment[1]

In percentage



1. Full-time equivalent.
2. Data refer to 2016 for Australia, Austria, Belgium, Germany, Greece, Ireland, Iceland, Italy, Poland, Portugal and Hungary. 2015 for Chile, Israel, and Norway. 2014 for Estonia, France, Latvia, Luxembourg, the Netherlands, Spain and Slovenia.
3. 2016 for Norway.
Source: OECD, *Labour Force Statistics database*.

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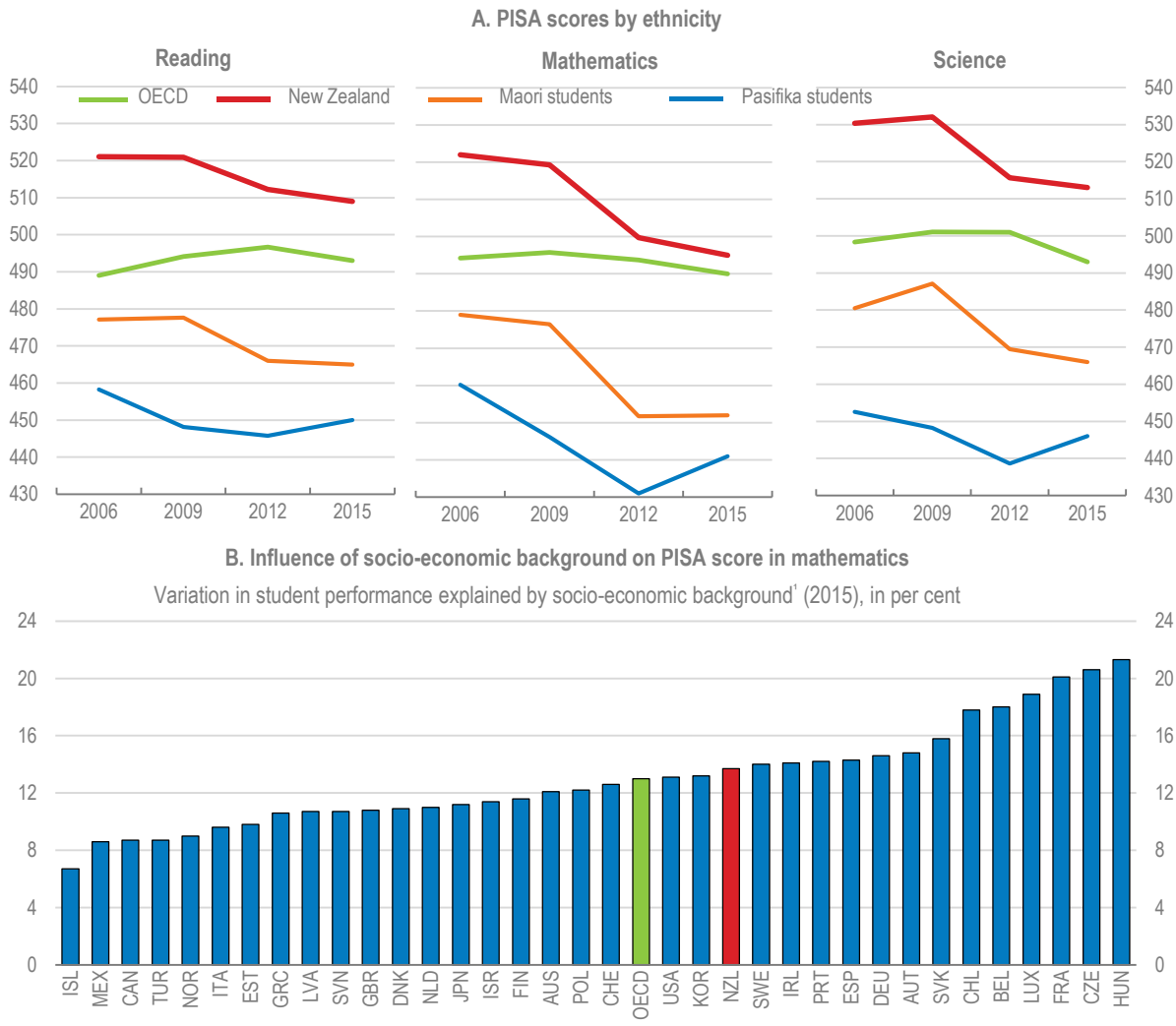
Figure 20. There are large inequalities in education achievement



1. PISA index of economic, social and cultural status.

Source: OECD (2016), *PISA 2015 Results: Excellence and Equity in Education,* Vol. I, Table I.6.3c; OECD, *PISA Results,* various years; S. May, J. Flockton and S. Kirkham (2016), *PISA 2015 - New Zealand Summary Report,* Ministry of Education.

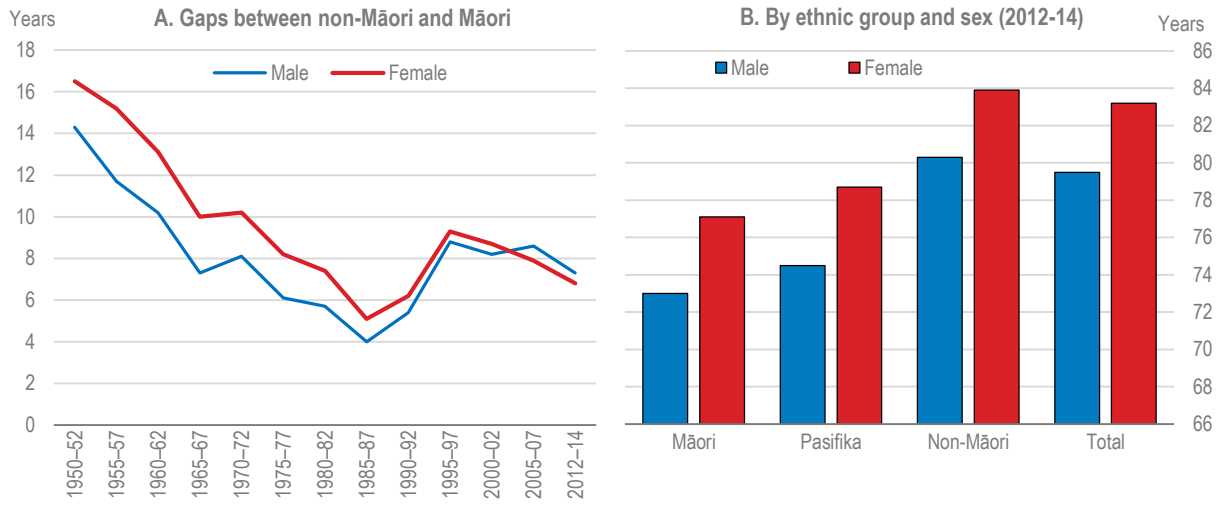
StatLink https://doi.org/10.1787/888933948986

Integrating a well-being approach in policymaking

Improving the well-being of New Zealanders and their families is one of three strategic priorities for the government, alongside building a productive, sustainable and inclusive economy, and providing new leadership by government (New Zealand Government, 2018[32]). The focus on well-being is supported by the work of the New Zealand Treasury, which has been developing its Living Standards Framework (LSF) over many years. It aims to inform policy and support better decision making through taking on board a broad range of impacts, including distributional effects, examining trade-offs and improving transparency.

Figure 21. Māori and Pasifika have shorter life expectancy than the rest of the population

Life expectancy at birth



Source: Stats NZ.

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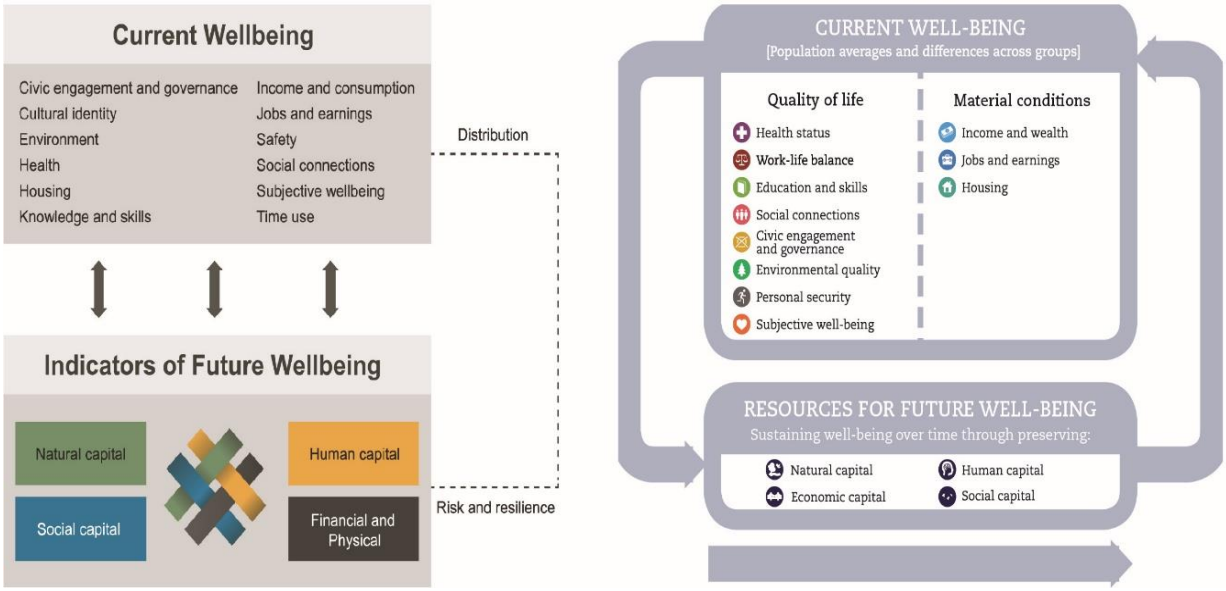
The latest version of the LSF identifies 12 domains or factors that matter for New Zealanders' well-being, as well as four capital stocks, which are the foundations of current and future well-being. Resilience, which is about enabling the country to respond to shocks, is also a key dimension of the framework. Distribution (e.g. across population groups and regions) is important across the domains, the capital stocks and resilience.

The identified domains are very similar to those in the OECD Framework (Figure 22), except that the LSF also includes a 'cultural identity' dimension, recognising its central importance in a New Zealand context. A strength of these frameworks (and of Belgium's Complementary Indicators to GDP and the Dutch Well-being Monitor) is that they explicitly distinguish current individual well-being outcomes from the broader systems and means to sustain those outcomes over time. This helps to monitor whether a country is maximising well-being today at the expense of tomorrow, to clarify intertemporal trade-offs in policy design, and to emphasise the inter-generational character of well-being (Stiglitz, Sen and Fitoussi, 2009[33]; UNECE, 2013[34]; UNU-IHDP and UNEP, 2014[35]; OECD, 2015[36]).

The LSF Dashboard contains 55 indicators in total, several of which relate to subjective well-being or other self-reported measures. This is consistent with the balance of objective and subjective well-being seen in other frameworks used by OECD countries, and in the OECD's How's Life? approach. It is increasingly recognised that subjective well-being can be meaningfully measured through national official statistics, and can add value and context to policy discussions (OECD, 2013[37]). Nevertheless, the policy applications of subjective well-being data are still evolving, and there are legitimate questions about the extent to which they can be used to guide macroeconomic analysis and policy decisions. As a consequence, well-being dashboards adopted by OECD governments should use subjective data as a complement to, rather than a replacement for, objective data on people's living conditions, quality of life and resources for future well-being.

Figure 22. The NZ- and OECD well-being frameworks have much in common



Source: Treasury, *Living Standards Framework: Introducing the Dashboard,* https://treasury.govt.nz/publications/tp/living-standards-framework-introducing-dashboard; OECD, *How's Life? 2017,* https://doi.org/10.1787/how_life-2017-en.

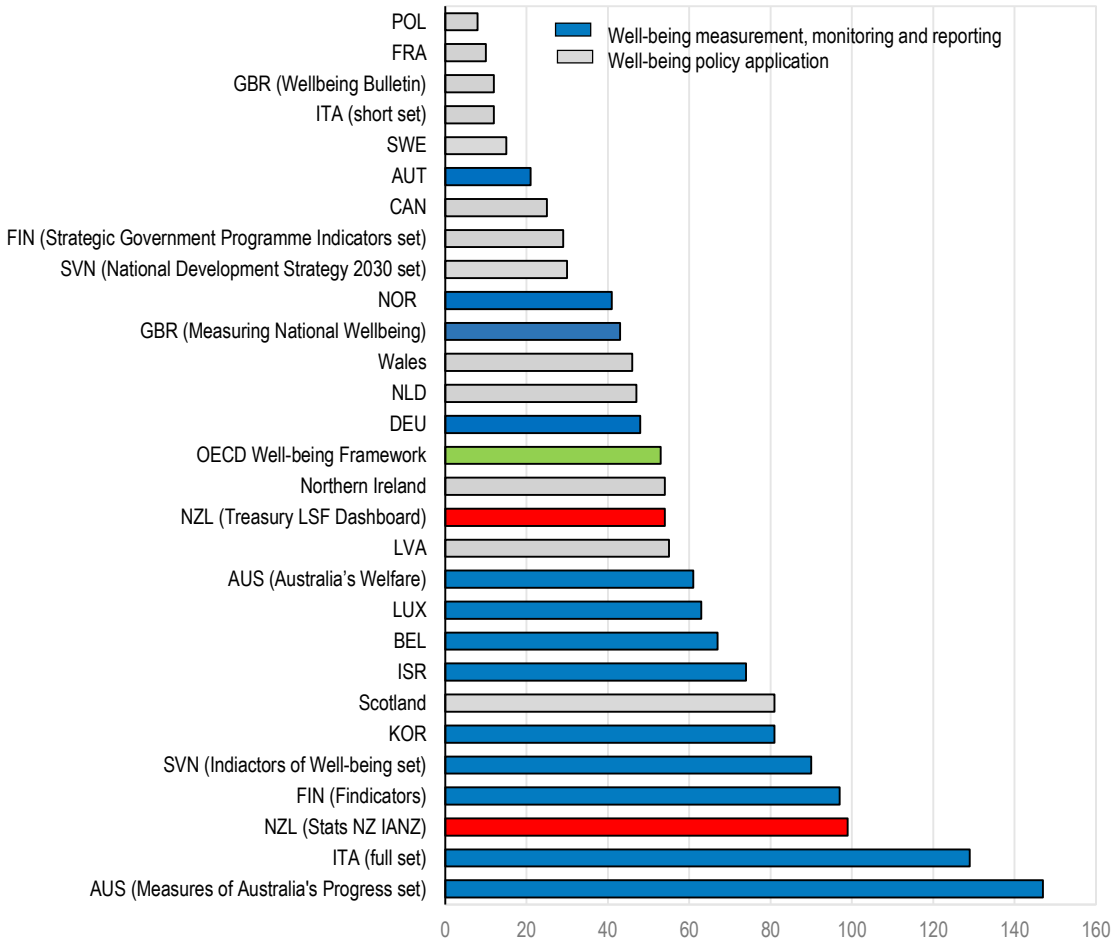
The first edition of the LSF Dashboard was released in late 2018 to support the use of well-being analysis and evidence in the Treasury's policy advice and to support a well-being approach in other public sector agencies. The indicators were selected based on a comparison of international and New Zealand-specific well-being frameworks, and an assessment of their suitability for New Zealand. Overlaps with other national well-being dashboards suggest that the Dashboard broadly reflects international consensus on the key aspects of well-being. The Dashboard also follows good practice by providing a detailed assessment of the distribution of well-being, for example by gender, age, ethnicity and household structure. Nevertheless, conceptual and data gaps, as well as the need for a concise indicator set, mean several themes and indicators that consistently appear in other countries' approaches are absent. In some cases, these measurement gaps are in priority areas for New Zealand. For example, in natural capital, OECD data indicate that New Zealand performs poorly relative to other countries in terms of GHG emissions and soil nutrient balance, while Stats NZ data indicate worsening nitrogen pollution in rivers, yet these aspects are currently absent from the Dashboard. Similarly, investment in R&D is low, and not represented in the Dashboard. Identifying whether these indicators should be included in the Dashboard, better integrating Te Ao Māori, Asian and Pasifika perspectives, and ensuring greater consensus on the framework adopted across the public sector should be priorities when the LSF and its Dashboard are reviewed and updated in 2021.

The 2021 review should also clarify the role of the Dashboard, vis-à-vis other well-being frameworks and indicator sets being developed in New Zealand, such as those to support the Child and Youth Well-Being Strategy, the Social Report, Environmental Report, and the new Indicators Aotearoa New Zealand (IANZ) dashboard that will be released by Stats NZ in mid-2019. This will influence the extent to which additional indicators need to be included in the Treasury's Dashboard, rather than being covered elsewhere. The size and indicator coverage of the Dashboard currently falls between that of frameworks focused on

monitoring and reporting, which typically have many indicators, and that of frameworks focused on concise communication and prioritisation – such as those used in budget debates in France, Sweden or Italy, which tend to have small, focussed indicator sets (Figure 23). Stats NZ's IANZ will be a more comprehensive indicator set, and is intended to become a key source of data on New Zealand's well-being in the future (Figure 24).

Figure 23. The LSF Dashboard has a middling number of indicators

Number of indicators per well-being framework



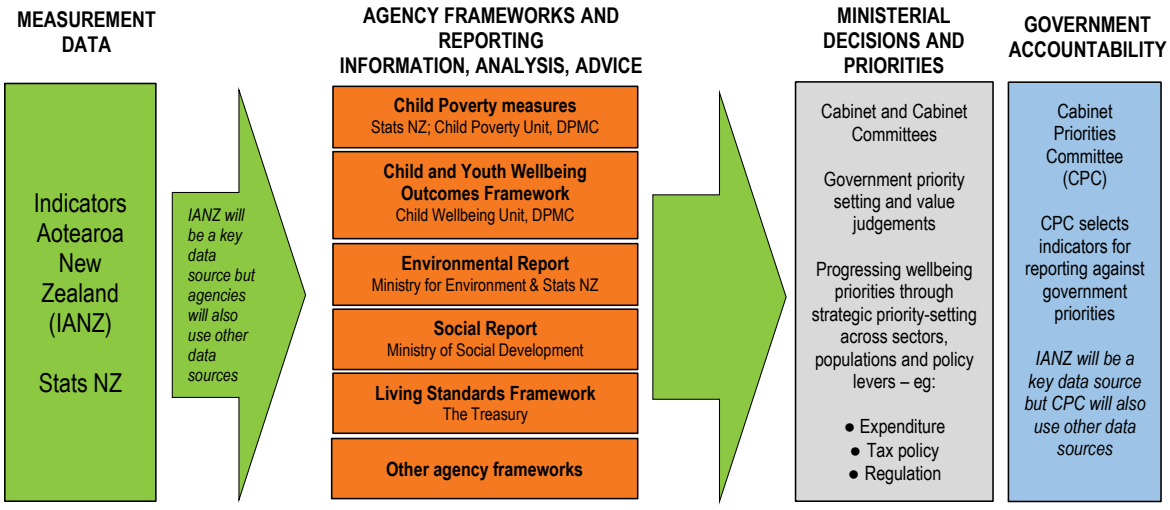
Note: The number of indicators refers to unique headline indicators as of May 2019. Information on Stats NZ's IANZ initiative is based on the proposed indicator list released on 9 April 2019.
Source: See Statlink for details of the data sources.

StatLink https://doi.org/10.1787/888933949024

The Treasury has developed its Living Standards Framework to bring a well-being perspective to its own analysis and advice. Although agencies were required to use LSF concepts in their Budget 2019 funding requests, a number of agencies also have their own well-being approaches and multidimensional indicator sets. This distributed approach enables government ministries and agencies to tailor their analyses to their needs, including providing greater depth than the LSF Dashboard can offer. However, the lack of one consistent framework, or one definitive account of New Zealanders' well-being, risks

creating confusion among stakeholders and researchers tasked with generating the evidence base. The potential gains from a more collaborative whole-of-government approach may also become harder to realise. Public sector chief executives should therefore consider adopting a common high-level conceptual framing of well-being – perhaps by adopting the LSF or IANZ - as an organising framework under which agency well-being frameworks are nested.

Figure 24. The anticipated Indicators Aotearoa New Zealand data pipeline



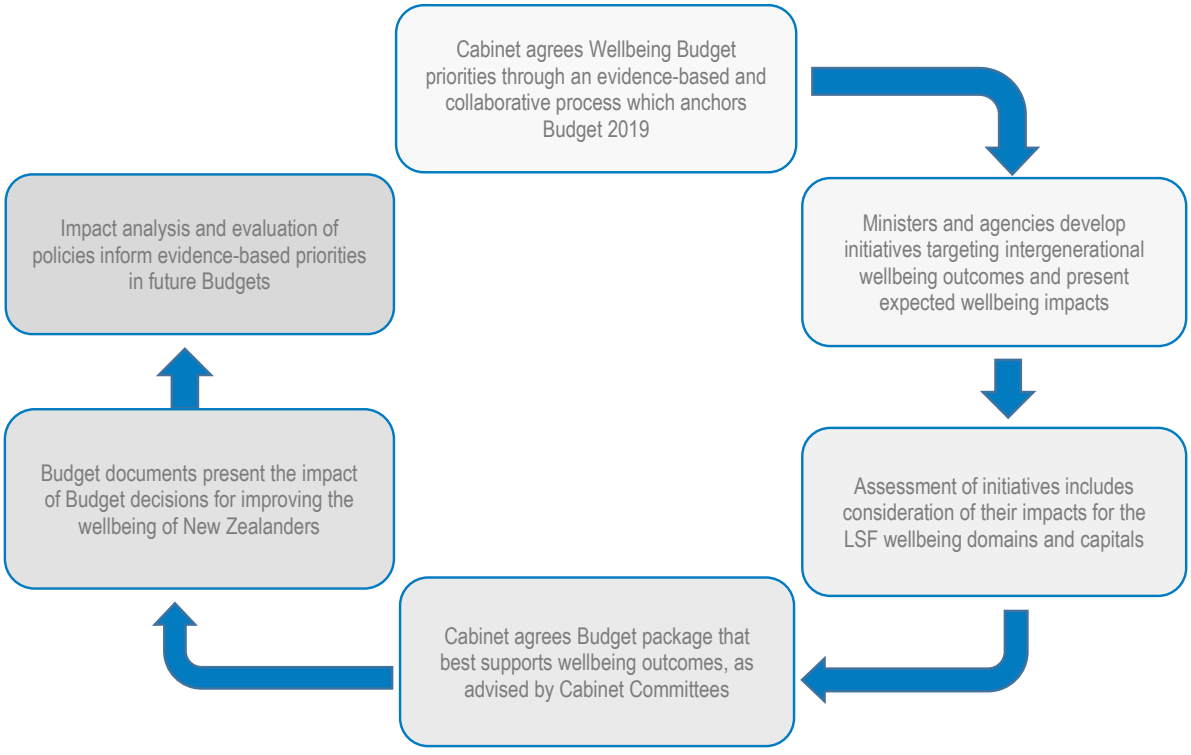
Source: New Zealand Treasury (2019), Presentation by Gabriel Makhlouf to the OECD, 22 January.

There is also more work to do to integrate well-being approaches into policy toolkits and approaches. New Zealand's Wellbeing Budget 2019 uses well-being evidence at different stages of the budget process (Figure 25). New innovations include using well-being evidence to set Budget priorities, strongly encouraging and incentivising collaboration among agencies, and using a well-being framework to assess spending proposals. This includes requiring all ministries seeking funding for new initiatives to identify and, where possible, to quantify how their proposals are expected to affect the relevant well-being domains and capitals, using an impact and cost-benefit analysis template designed for Budget 2019. An optional spreadsheet tool (CBAx) available to agencies, which aims to support a consistent approach to cost-benefit analysis and the use of monetised impact values, has now been adapted to enable impacts to be linked to well-being domains. The Treasury should review experiences from the 2019 Budget with departments, and further develop its own expertise in well-being impact analysis. The 2019 Wellbeing Budget affects only the marginal spend – around 4% of core Crown expenditure. One of the Treasury's future challenges will be to bring a well-being lens into reviewing the baseline spend. Given the emphasis placed on improving policy advice through the LSF, there is also scope for incorporating it into existing quality assurance procedures both within Treasury and across government, as well as through other policy tools such as regulatory impact assessment and policy evaluation. Strong oversight will be needed to both embed the approach and to maintain the robustness of policy analysis and advice while mainstreaming the LSF.

For well-being to become an effective tool for government, it will be important to trace how the processes, inputs and outputs under policymakers' immediate influence affect the ultimate outcomes highlighted in dashboards and frameworks. This will also be central to

the success of the government's proposed amendments to the Public Finance Act, which will require governments to set well-being objectives and report on them annually, with a report on well-being outcomes from Treasury every four years. Infrequent data collections, low timeliness of data, and time lags between policy action and meaningful change in well-being outcomes could pose challenges in this context. Thus, identifying intermediate outcomes – i.e. those which respond rapidly to changes in policy systems and can be linked empirically to final well-being outcomes, may prove pivotal to both setting well-being objectives and coordinating the response needed to meet them.

Figure 25. New Zealand's Wellbeing Budget process



Source: New Zealand Government (2018), *Budget Policy Statement, Budget 2019,* www.budget.govt.nz/budget/2019/fiscal-strategy/bps2019.htm.

Raising well-being through more environmentally sustainable growth

New Zealand's natural capital is vital for both current and future well-being. Compared with most other OECD countries, New Zealand enjoys clean air (Figure 26, Panel C), high levels of renewable freshwater resources and abundant attractive recreational spaces. The natural environment also provides the basis for the economy's primary sector, which accounts for about 45% of total exports. However, as the 2017 OECD *Environmental Performance Review* (OECD, 2017[38]) argued, New Zealand's growth model is approaching its environmental limits. The expansion of dairy farming in recent decades has increased freshwater contamination, threats to biodiversity and greenhouse gas (GHG) emissions. New Zealand should build on its well-developed knowledge and innovation system for exporting higher value export products and decouple growth from natural resource use. As argued in the 2017 *Economic Survey*, efficiently decoupling growth in primary production from natural resource depletion is likely to require that producers pay

for the environmental damage they cause and continued support for R&D investment to mitigate GHG emissions (mainly biological methane) and water pollution from agriculture. In urban areas where sewage and storm-water infrastructure has not been able to cope with a rapidly growing population, more investment in these facilities is needed to reduce overflows of untreated water into watercourses and harbours.

Increasing diffuse sources of pollution – notably nutrients, pathogens and sediments – have reduced water quality in many areas (OECD, 2017[39]). The nitrogen balance per hectare is slightly worse than the OECD median, but the increase over the past two decades has been the second largest, mainly owing to the expansion of dairy farming. Horticulture, arable farming, and sheep and beef farming can also have significant impacts, but such land uses have not expanded at the rapid rate of dairy. Dairy cattle also make a proportionally higher contribution to nitrogen leached from agricultural soils. Water pollution hotspots are largely focused in regions of dairy farming. There are concerns that if large-scale conversion of land to dairy farming were to continue, it would result in more freshwater degradation in years to come (all the more so in the more distant future owing to substantial lagged effects), even with the best mitigation techniques. Water pollution in New Zealand can have negative impacts on freshwater ecosystems, drinking water sources and human health, swimming and water-based recreation (OECD, 2017[39]). Although water abstractions are not excessive in aggregate (Figure 26, Panel D), irrigation of livestock pasture also puts some local water resources under stress quantitatively, reinforcing water quality degradation. Freshwater abstraction for agriculture is high by international comparison (OECD, 2017[38]). In 2017, dairy farming accounted for 59 percent of the irrigated agricultural land area in New Zealand (Ministry for the Environment & Stats NZ, 2019[40]). Fortunately, the government recently stopped subsidising new large-scale irrigation projects.

Deteriorating water quality also contributes to loss of biodiversity. Biodiversity loss is a key world-wide threat to the foundations for human wellbeing, alongside climate change and soil degradation. New Zealand has some of the highest levels of threatened native freshwater species; a high proportion of other endemic species are also threatened with extinction (OECD, 2017[39]). The National Policy Statement on Freshwater Management and the Clean Water Package 2017 require regional councils to manage water within ambitious quality and quantity limits, a task for which they need additional support. In 2018 the government launched an Essential Freshwater Work Programme to stop further degradation and loss, reverse past damage and improve water allocation. It includes addressing the rights and interests of Māori. As recommended in past *Surveys*, pricing and permit trading should be expanded (subject to agreeing iwi (tribal)/Māori rights) to achieve these objectives efficiently (Table 11). Using economic instruments to improve water quality would entail levying pollution charges or setting caps on discharges of pollutants in a catchment (watershed) and allowing trade in discharge permits.

New Zealand has among the highest GHG emissions per capita and per unit of GDP in the OECD and they have fallen little since 2010. Biological emissions from agriculture – primarily methane – make up almost half of New Zealand's GHG emissions. Although the increase in the number of dairy cattle slowed 2012-2017, the rise in dairy farming is undermining New Zealand's aspiration to become a low-emissions economy, as the emissions intensity of dairy production has fallen by only 1% per year. Addressing GHG emissions from agriculture, and especially from dairy farming, should remain a priority if the country is to achieve its 2030 climate mitigation target under the Paris Agreement (OECD, 2017[39]). Indeed, modelled pathways that limit global warming to 1.5°C with no or limited overshoot involve reductions in global emissions of methane emissions of 35%

or more by 2050 (Intergovernmental Panel on Climate Change, 2018[41]). Energy-related CO_2 emissions per unit of GDP are lower than the OECD average, despite high emissions from the transport sector, as most electricity generation is renewable (mostly hydropower) (Figure 26, Panels A and B). The transport sector is the main source of growth in GHG emissions.

The new government has declared climate policy a priority. The Climate Change Response (Zero Carbon) Amendment Bill proposes setting a target for emissions reductions by 2050, an independent Climate Change Commission for providing advice to government and carrying out a national climate change risk assessment, which will inform a national adaptation plan produced by the government to address the changes New Zealand will experience as a result of climate change. This will entail achieving net zero emissions of greenhouse gases excluding biological methane (any gross emissions are offset by sequestration, such as through tree planting) by 2050 and a 24% to 47% reduction in biological methane emissions relative to 2017 levels. The government has committed to a "just transition" to avoid leaving vulnerable population groups behind. Like other signatories to the Paris Agreement, New Zealand will be recommunicating its nationally determined contribution in the coming year. On current policies, New Zealand's gross GHG emissions are projected to exceed its current 2030 target (Ministry for the Environment, 2017[42]). Therefore, the government envisages reaching the target from land use and land-use change, notably using afforestation as a CO_2 emissions sink, as well as the international market mechanisms. Carbon sequestration from reforestation cannot provide an indefinite flow of negative emissions, so cannot substitute for long-term GHG emissions reductions in the other sectors.

These steps would bring New Zealand's policy objectives closer in line with the objectives of the Paris Agreement, which requires countries to limit global warming to well below 2 degrees and make efforts towards limiting global warming to 1.5 degrees. Limiting global warming to 1.5 degrees is likely to result in substantial benefits in terms of lower climate risks, compared to 2 degrees, world-wide (Intergovernmental Panel on Climate Change, 2018[43]). For example, it could reduce the number of people exposed to both climate-related risks and poverty by up to several hundred million and reduce the proportion of the world population exposed to a climate-change induced increase in water stress by up to 50%. Worldwide, reaching the 1.5 degree target requires anthropogenic CO_2 emissions to drop to net zero around 2050 (Intergovernmental Panel on Climate Change, 2018[43]). High-income countries need to reach net zero emissions earlier (OECD, 2017[44]).

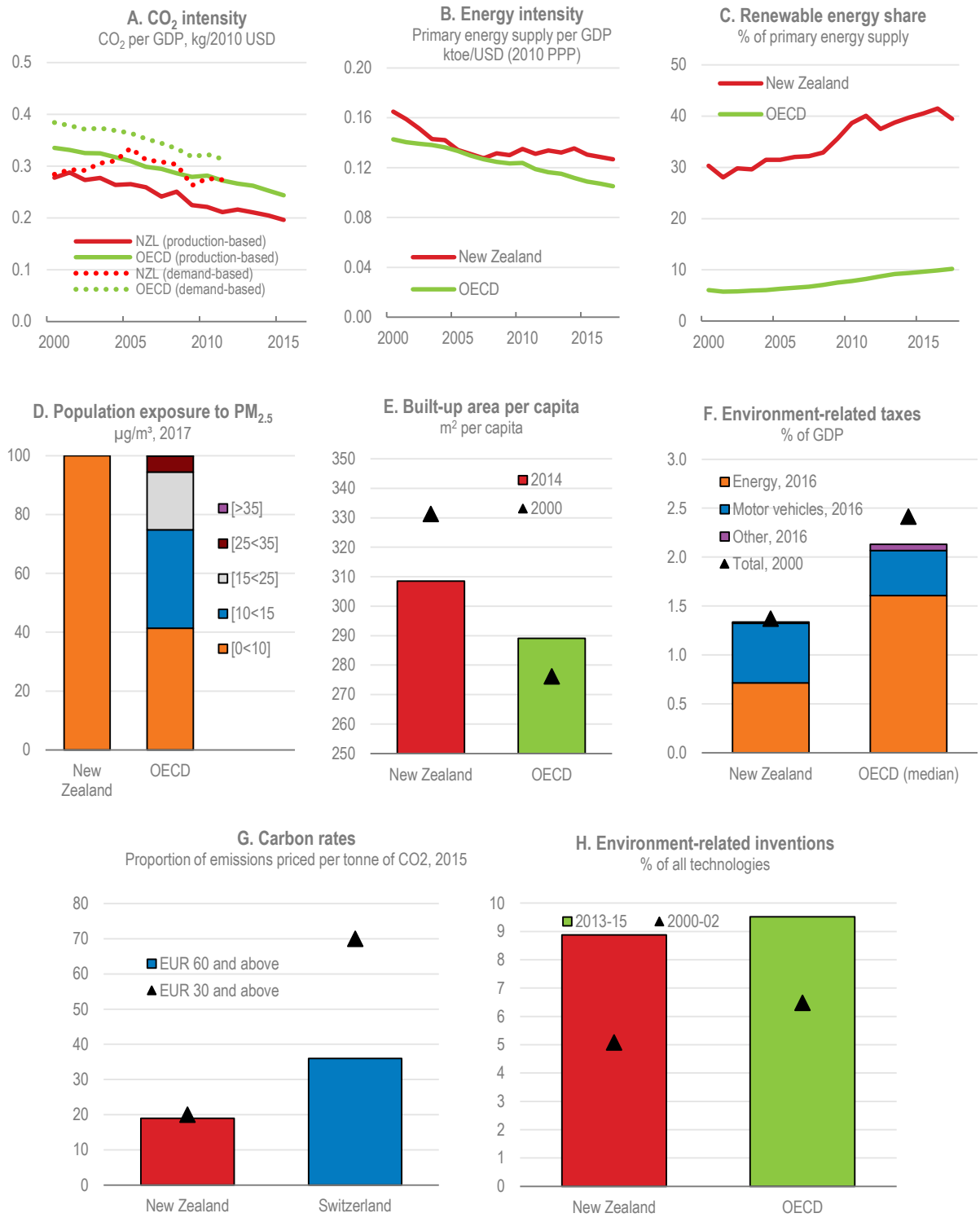
New Zealand needs a comprehensive plan to achieve its GHG emissions reduction ambitions. Carbon pricing is weak (OECD, 2018[45]), transport fuel taxes are low and non-transport fossil fuel uses are almost all untaxed, including coal use in industry (OECD, 2018[46]), thus keeping environmental tax revenue low (Panels F, G). A 2018 ban on new offshore oil and gas exploration was billed as an important step to address climate change when announced. Subsequent analysis indicated that the net impact on global emissions is uncertain, due to a shift to higher-emissions production internationally, but more likely to be negative (MBIE, 2018[47]). The annual cost to New Zealand has been estimated to average 0.22% of GDP over 25 years (NZIER, 2019[48]).

Table 10. Past OECD recommendations on green growth

Recommendations in past Surveys	Actions taken since the previous *Survey*
Develop a long-term vision for a transition towards a low-emissions, greener economy.	The Zero Carbon Bill that sets a target for emissions reduction by 2050 went before Parliament in May, 2019.
Increase the price of carbon to a level consistent with New Zealand's intended transition to a low-emissions economy. Adopt alternative pricing or regulatory measures to reduce biological emissions. Support research in new mitigation technologies, especially for farming.	The price of permits in the NZ Emissions Trading Scheme (NZ ETS) has increased to around NZD 25 per tonne following de-linking of the NZ ETS from other schemes with cheap permits and the phasing out of the one-for-two arrangement, which halved the number of permits needed by emitters. The current price is too low to be compatible with an efficient transition to a low-emissions economy. The government has made decisions to improve the NZ ETS by: • Ensuring that it assists with delivery of emissions reduction targets and supports implementation of the Paris Agreement; • Enabling a cap to be placed on emissions covered by the NZ ETS; • Improving administration and operation of the NZ ETS; and • Improving how forestry is treated in the NZ ETS. The government is considering further improvements to the NZ ETS covering the use of proceeds from auctions, a potential price floor, how decisions to phase down industrial allocations should be made; further improvements to the compliance and penalties regime and the broader market governance framework.
Introduce an excise duty on diesel and ensure that petrol and diesel tax/charge rates consider the environmental costs of transport. Introduce fuel efficiency and air emission standards for new and imported used vehicles.[1]	No action taken.
Extend the waste disposal levy and encourage local authorities to introduce quantity- or volume-based waste charges to help minimise waste, foster recycling and recover costs of waste service.[1]	The Ministry for the Environment is currently reviewing the coverage and rate of the Waste Disposal Levy. A discussion document is being prepared for public consultation on expanding the Waste Disposal Levy to begin around July 2019.
Monitor the implementation of the 2014 National Policy Statement for Freshwater Management in regional plans to ensure water quality meets agreed goals. Provide clearer technical guidance for regional councils.	In 2017, the Ministry for the Environment published a review of how regional councils are progressing towards implementing the National Policy Statement for Freshwater Management. In the last four years, the Ministry for the Environment has provided a suite of technical guidance to help regional councils, including guidance on freshwater accounting, calculating water quantity over-allocation, identifying freshwater management units, using the attribute tables to set objectives, and managing periphyton. In October 2018, the government launched an Essential Freshwater Work Programme to stop further degradation and loss, reverse past damage and address water allocation issues. These would be achieved through a new National Policy Statement for Freshwater Management and a new National Environmental Standard for Freshwater Management, among other things.
Introduce pollution charges or cap-and-trade measures for water quality. Expand water trading and pricing to ensure scarce water goes to its best use.	The government is exploring systems that will achieve efficient and fair allocation of freshwater and nutrient discharges, having regard to all interests including Māori, and existing and potential new users.
Review government support for irrigation to ensure that funding is only provided for projects that would not proceed otherwise, and that have net community-wide benefits.[1]	The government is winding down funding for large-scale irrigation projects, while honouring existing commitments.
Intensify protection of species by continuing to develop a National Policy Statement on biodiversity.	The government has supported a collaborative stakeholder group to develop a draft National Policy Statement on Indigenous Biodiversity. Government officials are considering these recommendations and preparing a proposed National Policy Statement on Indigenous Biodiversity for public consultation.

1. Recommendation from the 2017 Environmental Performance Review of New Zealand.

Figure 26. Environmental indicators



Source: OECD, *Environment Statistics database (Green Growth Indicators: Exposure to Air Pollution, Patents: Technology Development, Municipal Waste).*

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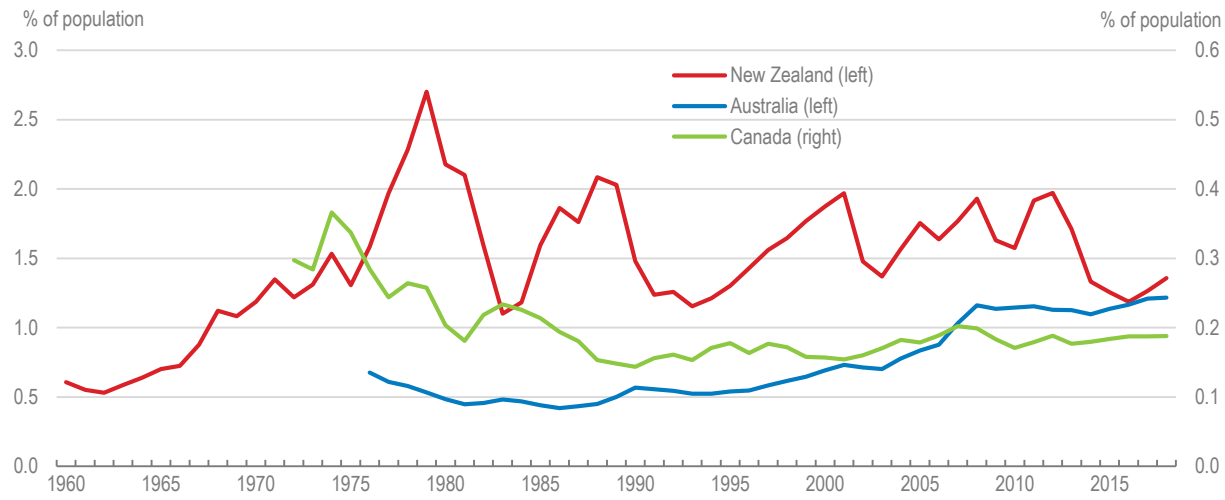
ETS prices have been well below low-end estimates of climate-related costs of CO_2 emissions of EUR 30 per tonne. The scheme also excludes biological CO_2 emissions from agriculture. The government is reforming the ETS to ensure an emissions price consistent with New Zealand's intended transition to a low-emissions economy (Table 11). It is planning to phase down industrial allocation of permits (i.e., free allocation). Free allocation can generate incentives to invest in high-emissions production because this would result in the attribution of free permits (Flues and van Dender, 2017[49]). Auctioning permits instead of allocating them free also generates government receipts. Evidence from the European Union's ETS also indicates that free allocation of permits to firms is regressive (Zachmann, Fredriksson and Claeys, 2018[50]). The government should also announce a date for the inclusion of biological emissions from agriculture or alternative pricing and regulatory measures taken to enforce emissions reductions earlier (OECD, 2017[44]). While the ETS will be a key tool to meet targets efficiently, urban planning and transport policy reforms also have an important role to play, notably in reducing car dependency.

Reforms of metropolitan governance, following the example of Auckland, can improve urban planning, for example by reducing urban sprawl and better integrating housing and public transport (OECD, 2015[51]). Built-up area per capita is high which is likely to reflect urban sprawl (Figure 26, panel E). Similarly, a shift in the share of transport subsidies from roads (currently 90%) towards public transport and infrastructure for cycling and walking, as is beginning to occur, would also help. Such measures can reduce CO_2 emissions and local pollutants, help improve productivity of the urban economy by reducing congestion as well as reduce the cost of deploying infrastructure, including public transport. Support for the rollout of the electric vehicle (EVs) fleet – for example, EVs are currently exempt from road-user charges – will also help to reduce GHG emissions and local air pollution. Defining public service requirements for urban electric vehicle charging infrastructure could boost uptake further. Introducing digital-based ridesharing to replace individual private car use has much potential to improve efficiency in mobility and achieve large reductions in CO_2 emissions and pollution (Chapter 3). Introducing ride-sharing can also make electrification more cost effective. It would curb the increase in electricity demand. More intensive use of shared vehicles makes electric vehicles more cost-effective, as they have low operating costs.

Improving well-being through better migration policy

New Zealand has experienced high emigration in recent decades. It picked up in the late 1960s, when income levels in New Zealand slipped below those in Australia, and grew until the 1980s as New Zealand's relative economic performance deteriorated (Figure 27). Following profound economic reforms in the late 1980s and early 1990s, New Zealand's relative economic performance stopped deteriorating and emigration moderated, but remained high. New Zealand's emigrants are on average more highly educated than the rest of the population, raising concerns about potential negative effects on economic well-being (Brunow, Nijkamp and Poot, 2015[52]).

Figure 27. Emigration from New Zealand is high



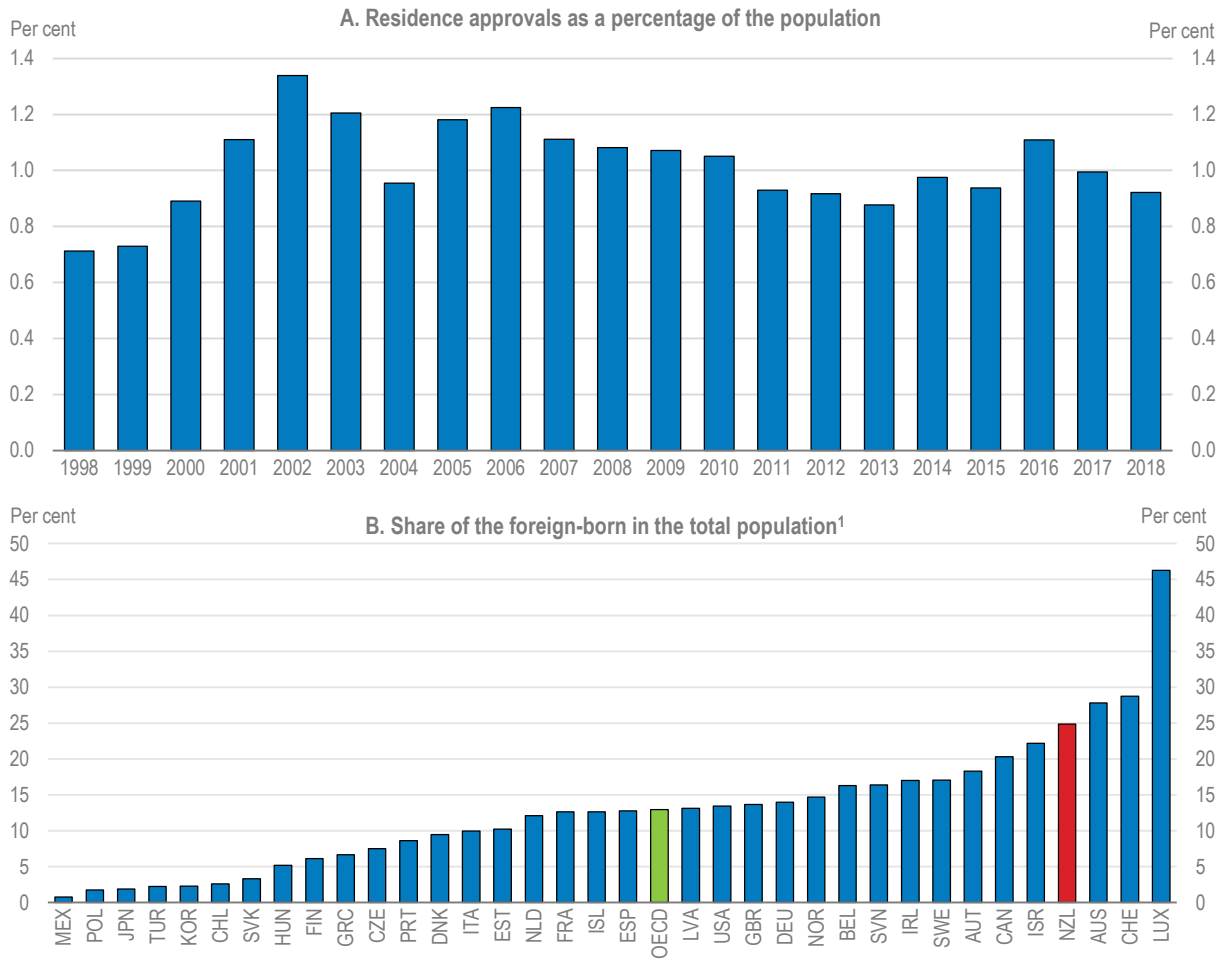
Source: Stats NZ; Statistics Canada and Australian Bureau of Statistics.

StatLink https://doi.org/10.1787/888933949062

Partly in response to high emigration, immigration policy was overhauled in the late 1980s and early 1990s to attract many more high-skilled immigrants. New Zealand adopted a points-based system along the lines of those in Australia and Canada. Immigration has been high since then, increasing the immigrant share of the population to one of the highest in the OECD (Figure 28). By international comparison, a high share of immigrants enter as principal applicants selected for their skills or as their immediate family members (Figure 29). In all, net permanent and long-term immigration has been positive in recent decades and well above the long-term average in recent years (Figure 30).

New Zealand's immigration system is predominantly aimed at increasing the well-being of permanent New Zealand residents (both New Zealand-born and immigrants) and is well run. Outcomes are monitored and policies adjusted accordingly to ensure that the system's objectives - to enhance well-being by promoting economic development, reuniting families and meeting humanitarian objectives - are met. Immigration has contributed to an increase in the education attainment of the working-age population (Figure 31, Panel A) and made the country more culturally diverse. Immigrants and their children are better integrated in New Zealand based on a variety of indicators than in most other countries, reflecting the importance of skills-based selection in the immigration system (OECD and European Union, 2015[5]). In contrast to the experience in most other OECD countries, where immigrants have mostly worse outcomes, immigrants in New Zealand tend to experience similar well-being outcomes to the native-born. Immigrants boast higher literacy (and numeracy) scores in New Zealand than in any other OECD country, contributing to a narrow gap in scores between adults who are native-born and immigrants (Panel B). Immigrant children's (first- and second-generation) PISA results are on a par with those for non-immigrant children, controlling for socio-economic background, whereas in most other countries their scores are lower (Panel C).

Figure 28. Immigration is high



1. 2016 or latest year available. 2015 for Chile, Greece, Mexico, Portugal and 2011 for Poland. For Japan and Korea, the data refer to the foreign population rather than the foreign-born population. The OECD is a simple average based on rates presented.
Source: OECD (2018), *International Migration Outlook 2018*, Table A.4 and Figure 1.12 and Stats NZ.

StatLink https://doi.org/10.1787/888933949081

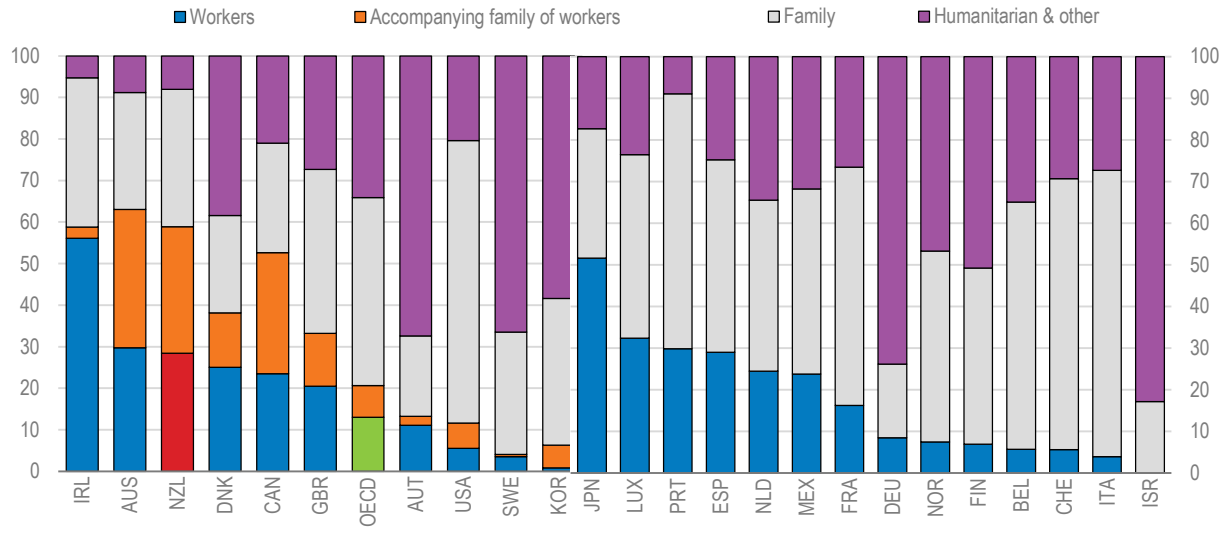
Economic and labour market effects

Immigration appears to have small, positive effects on GDP per capita after about two decades, consistent with integration of new immigrants taking 10 to 20 years (Brunow, Nijkamp and Poot, 2015[52]). Endogenous productivity growth through additional new investment, which is required to equip immigrants, may take a similar time to be realised. Agglomeration economies have contributed to higher productivity in Auckland, where most immigrants settle (Maré, 2016[53]), although such benefits have been constrained by insufficient infrastructure- and housing investment, which has resulted in growing traffic congestion (and water pollution) and rising house prices. Traffic congestion has directly reduced productivity and, together with rising house prices, has made it more difficult for workers to move to a better skills-matched job where they would be more productive. Adalet McGowan and Andrews (2017[54]) estimate that reducing literacy skills mismatch in New Zealand to the best practice minimum could increase industry labour productivity by 7% through gains in allocative efficiency. They find that the biggest problem in this area

is the relatively low long-run elasticity of new housing supply, which is only one third of the best practice level in the United States (Andrews, Caldera Sánchez and Johansson, 2011[55]).

Figure 29. The share of skilled immigrants (and accompanying family) in residence approvals is one of the highest in OECD countries[1]

Per cent of total residence approvals excluding free movements and other, 2016



1. Countries that do not separately identify accompanying family of workers are shown on the right-hand side of the figure. In these countries, accompanying family of workers are included in the family category.
Source: OECD (2018), *International Migration Outlook 2018*, Annex Table 1.A.2.

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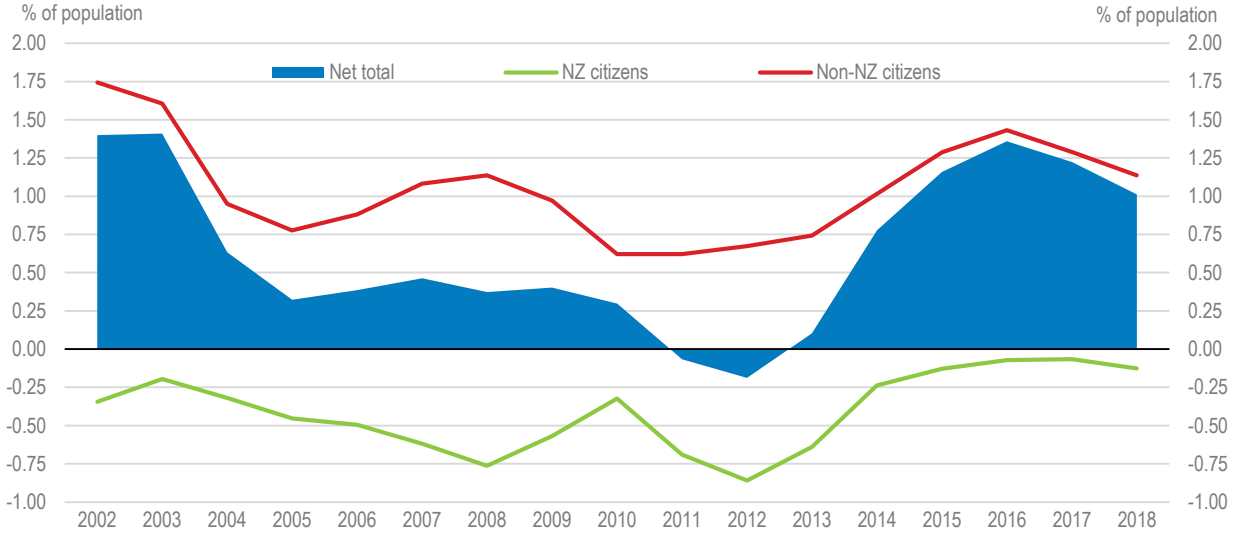
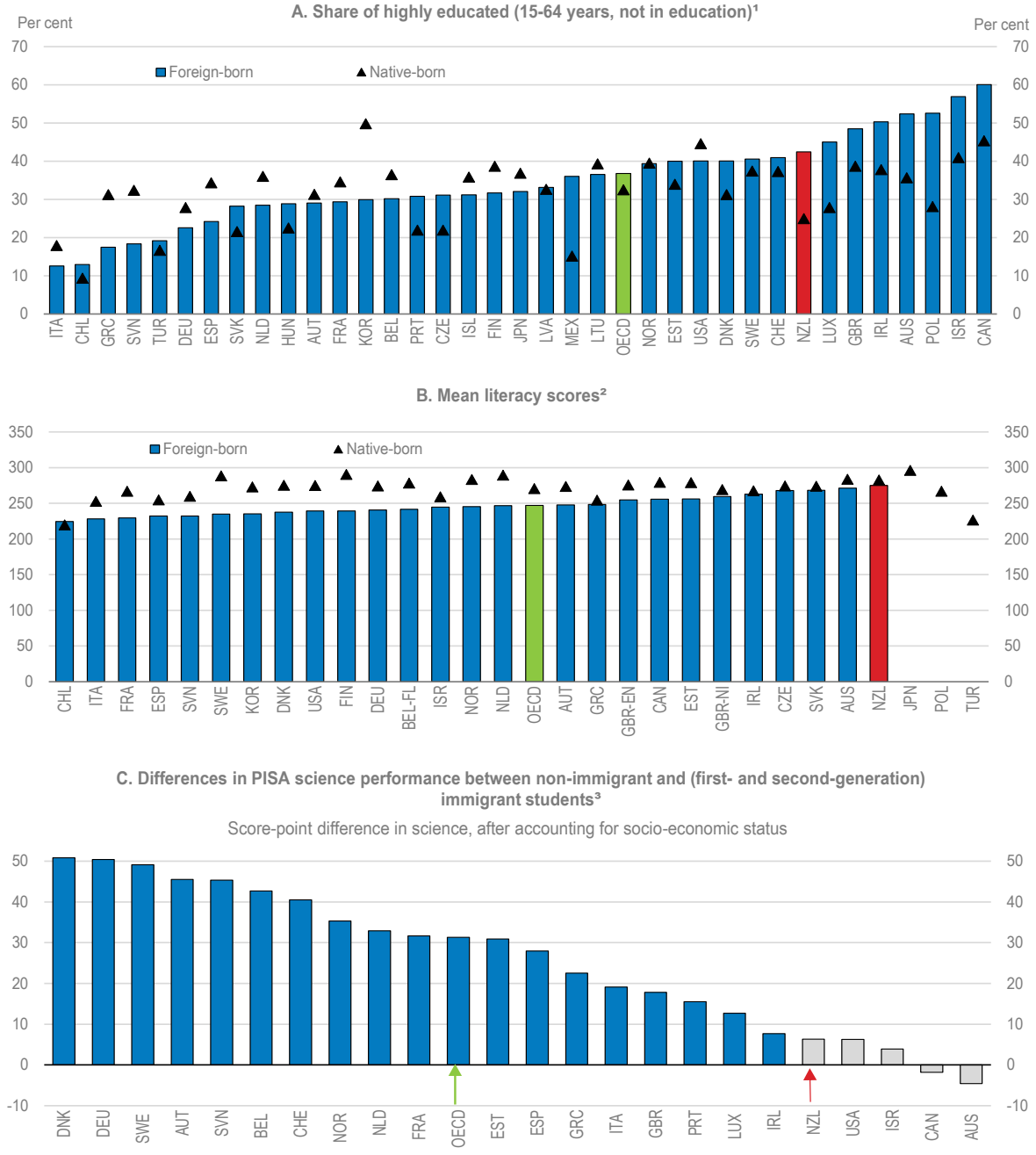
Figure 30. Net permanent and long-term migration has been high in recent years[1]



1. Annual as of June. Data from 2002-14 are experimental series, 2015-18 are new series.
Source: Stats NZ.

StatLink https://doi.org/10.1787/888933949119

Figure 31. Immigrants in New Zealand are highly educated and their children's education achievement is on a par with that of non-immigrants



1. Highly-educated is tertiary (ISCED 5-8) attainment. Canada and New Zealand include people still in education. Immigrants are determined on the basis of nationality in Japan.
2. BEL-FL corresponds to Flanders, GBR-EN to England and GBR-NI to Northern Ireland.
3. A positive score indicates better performance for non-immigrants than immigrants. The blue bars denote that they are statistically significant and the grey bars that they are not.
Source: OECD (2018), Settling In 2018: Indicators of Immigrant Integration; OECD (2016), Skills Matter: Further Results from the Survey of Adult Skills, Annex A; OECD, Survey of Adult Skills (PIAAC) (2012, 2015); OECD (2016), PISA 2015 Results (Vol I): Excellence and Equity in Education.

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On average, immigration has no negative effects on wage rates or employment of New Zealanders (Maré and Stillman, 2009[56]). Nonetheless, an increase in the relative skill composition of recent immigrants has a small negative effect on the wages of the high-skilled NZ-born that is offset by a positive effect on wages of the medium-skilled NZ-born. Temporary labour migrants – whose numbers have increased greatly and now represent almost 5% of the labour force - have not had negative effects overall on employment and new hires and have increased the earnings of New Zealanders aged 25 years or more (Ministry of Business, Innovation and Employment, 2018[57]). There were, however, negative effects on new hires of social welfare beneficiaries in areas outside the (16) most urbanised areas, particularly in horticultural regions, and negative impacts from particular visa categories, notably post-study work visas for international students, Essential Skills (ES) visas and Family visas.

Attracting higher-skilled temporary migrants and reducing exploitation

Most (80%) immigrants to New Zealand were already living in New Zealand when they applied for residence. The main route to residence is through Essential Skills temporary work visas, followed by post-study work (PSW) visas. Changes were made in 2017 to ES visa settings to ensure that only those likely to be able to transition to residence could stay in New Zealand long term and to use remuneration to better assess skills levels. Education requirements to obtain a PSW visa were increased in 2018 to make clear that studying in New Zealand is not a pathway to residence for students with low education attainment. International students' chances of gaining residence would be enhanced further by providing them with more information about labour market needs and opportunities in New Zealand as few of them seem to go into fields in high demand (OECD, 2014[58]).

The government is planning further reforms to the employer-assisted temporary work visa system (i.e., temporary work visas that are issued for a specific employer) and associated labour market tests to ensure that migrants are only recruited for genuine regional skills shortages and to create better connections between the immigration, education/skills and welfare systems as well as to increase expectations for employers to employ and train more New Zealanders. To recruit migrant workers, employers will first have to be accredited, which will require them to demonstrate that their business practices incentivise training and upskilling of New Zealanders and put upward pressure on wages and conditions, amongst other conditions. No labour market test will be required for occupations on new Regional Skills Shortages lists and for highly-skilled jobs paying at least twice the median wage. In sectors with high demand for lower-skilled migrant labour, sector agreements are to be negotiated that will oblige employers to commit to improvements to industry productivity, investment in training and development of domestic workers, or better conditions for both domestic and migrant workers in exchange for access to migrant labour. Regional differentiation in the labour market test is planned to support the alignment of the education/skills, welfare and immigration systems. Officials are working on how this alignment could best be achieved. These reforms and increases in the salary thresholds for mid-skilled- and high-skilled temporary migrants are expected to reduce employers' reliance on lower-skilled immigration over time.

To reduce exploitation of temporary migrants on work visas, the government recently increased the number of labour inspectors and ended the link between PSW visas and a sponsoring employer. It also initiated a review of the problem that includes in-depth policy analysis, independent commissioned research and a consultation group to hear the voices of migrants, business, unions, international students, the legal profession and community advocates. The more intense employer checks envisaged in the planned employer-assisted

temporary work visa system may help to reduce exploitation. Making it easier for workers on such visas to change employers could also help by reducing opportunities for exploitation.

Improving labour market outcomes for immigrants

Immigrants fare less well in the labour market than the comparable NZ-born, although the gap closes over time. Controlling for relevant characteristics, Stillman and Maré (2009[59]) find that newly arriving immigrants have on average employment rates and annual incomes that are 20 percentage points and 30-35% lower, respectively, than for the comparable NZ-born. However, after about 15 years in New Zealand, employment rates for immigrants are close to those of the comparable NZ-born and the income difference has halved for men and vanished for women. University qualified immigrants recover their entry disadvantage relatively quickly.

To improve earnings prospects for newly arriving immigrants, the points system was further realigned in 2017 to emphasise characteristics associated with better labour market outcomes. For the Skilled Migrant Category, the minimum number of points for automatic selection from the Expression of Interest pool was increased, remuneration thresholds were introduced as an additional means of defining skilled employment, and more points were awarded for skilled work experience, some post-graduate qualifications and applicants aged 30-39 years. The government decided not to award additional points for English language skills beyond the minimum required level (International English Language Testing System level 6.5 on a 1-9 scale, corresponding to a competent to good user). However, evidence shows that better mastery of the host country language is associated with better labour market outcomes (OECD, 2014[58]).

Improving settlement programmes also helps immigrants to integrate better. Two groups in particular have been identified in the New Zealand Migrant Settlement and Integration Strategy as needing help to find employment that makes good use of their skills: spouses/partners of principal skilled applicants, only 45% of whom were employed in jobs that matched their skills and qualifications in 2016, compared with 81% for principal applicants; and international student graduates. The government has given priority to these groups in Work Connect, an employment service for migrants that provides them with career management competencies to help them find, secure and remain in employment.

Regional Skills Matching programmes, which connect priority job-seeking migrants and employers, could usefully be complemented by mentoring programmes. These help currently employed skilled immigrant workers meet people in their profession, potentially integrating them in job-search networks, and provide profession-specific language skills as well as literacy and soft skills specific to host country workplaces. Such programmes have proven to be a promising way to overcome immigrants' underrepresentation in high-wage jobs in Canada (Skuterud and Su, 2012[60]).

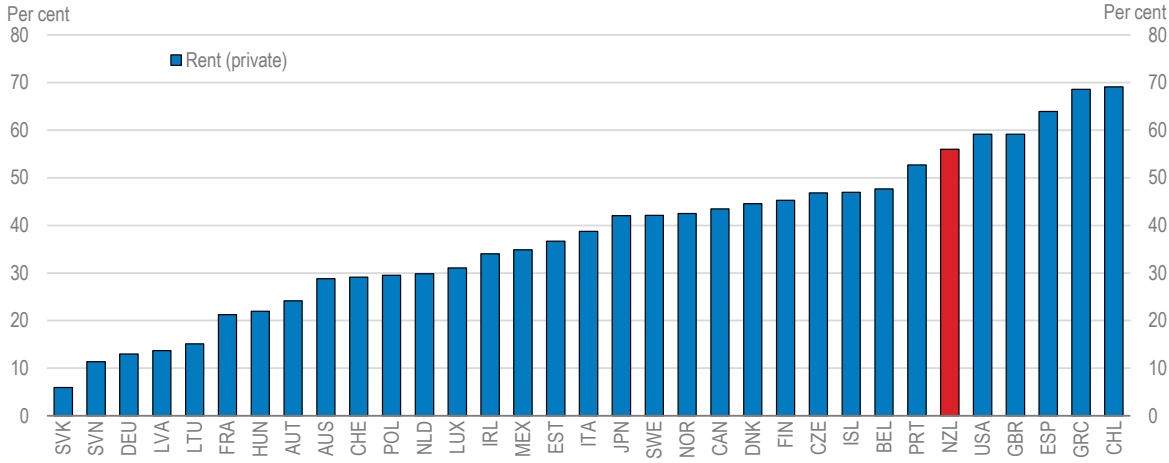
The government should also expand bridge programmes, which combine advanced language training specific to an immigrant's field and courses needed to bring credentials up to host country standards in regulated occupations. In New Zealand, there are shortages of places for getting bridging qualifications in some fields, and some candidates have to wait years before getting a place. The government should also consider supporting occupationally-based language courses, which can be very helpful in equipping immigrants with the advanced language skills needed to find and retain high-skilled employment.

Improving well-being through better housing policy

As noted above, the high cost of relatively low-quality housing is now among New Zealand's most pressing well-being challenges. Low-income renters are particularly badly affected: more than half of renters in the bottom quintile of the income distribution spend over 40% of their gross income on housing (Figure 32). Māori, Pasifika and Asian people have particularly poor housing conditions and would benefit from reforms to improve housing quality and affordability. The government has recently established a Minister and unit for Māori Housing and is investigating ways to reduce barriers to building on Māori land, such as difficulty accessing finance.

Figure 32. Most low-income renters face very high housing costs

Share of population in the bottom quintile of the income distribution spending more than 40% of disposable income on rent, 2014 or latest year available



Note: In Chile, Mexico, New Zealand, Korea and the United States gross income instead of disposable income is used due to data limitations.
Source: OECD, *Housing Affordability database,* Figure HC1.2.3, http://www.oecd.org/social/affordable-housing-database.htm.

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Further reforms to allow new housing supply and improve outcomes for low-income renters are critical to improve well-being through better housing affordability. Targeting those with low incomes would assist the government with its priority to reduce child poverty, by increasing incomes after housing costs. Less directly, housing reforms can improve jobs and earnings through facilitating children's education and geographic mobility, and deliver better subjective well-being and health outcomes through enhancing physical housing conditions. More affordable housing would reduce inequality through increasing affordability for low-income renters while moderating house price increases that mainly benefit relatively wealthy owners, particularly owners of multiple properties. The inability of new housing supply to meet demand has meant that high net immigration has contributed to worsening affordability; the policy response should be to enable supply to respond, rather than to restrict immigration and the well-being benefits it delivers.

Enabling supply of additional housing

Substantial work is underway to relax overly strict planning restrictions and improve infrastructure delivery through the central government's Urban Growth Agenda and associated programmes (Box 2). Implementation of the Urban Growth Agenda, and the

specific way in which this is done, will be key to achieving its ambitious goals. Councils still need greater clarity on principles for sustainable urban development and need to act to reduce their reliance on strict regulatory containment policies, which do not align well with desired outcomes and have impeded densification, affordability and innovation.

Box 2. Policy measures taken to lift New Zealand's low housing affordability

Steps are underway to meet the long-term challenge of facilitating new housing supply.

- The government's Urban Growth Agenda shows promise in rectifying urban planning problems through steps to enable growth (both up and out), define clear built environment principles, provide a framework for spatial planning and reform infrastructure funding and financing mechanisms.
- Establishment of a national housing and urban development authority (Kāinga Ora – Homes and Communities) will assist with much-needed land amalgamation (including via compulsory acquisition as a last resort) though this will be restricted to areas judged to have significant redevelopment potential.
- The Auckland Unitary Plan, which incorporated spatial planning and upfront consultation to overcome vested interests, has facilitated compact development in brownfield sites where greater density is now permitted.

In advance of new supply, measures to curb demand will contribute to affordability. The Kiwibuild programme (discussed below) also seeks to boost affordability in the short term.

- Macro-prudential restrictions on the share of loans that can be issued with high loan-to-value ratios have contributed to lower overall demand since 2013.
- The extension of capital gains taxation to properties (excluding the primary home) sold within five years or more and proposed ring-fencing of rental losses will dampen demand, though in both cases only a subset of investment property owners are directly affected. More comprehensive capital gains taxation has been ruled out.
- The government has asked the Productivity Commission to consider a tax on vacant residential land as part of its inquiry into local government funding and financing. Such taxation would reduce incentives for land banking, but could also encourage token use of land and similar incentives could be realised by shifting the tax base for local government rates to unimproved land values.
- A ban on housing purchases by foreign residents, passed in August 2018, is likely to have little effect on affordability but risks holding back foreign direct investment and thus construction industry competition and productivity.

Local governments have limited ability to recoup infrastructure costs except through development contributions, user charges or rates charged to residents. Infrastructure financing is a pressing issue for high growth councils, which are constrained by conservative debt limits. The Urban Growth Agenda envisages greater use of project-specific financing through special purpose vehicles, which are a viable option for large, long duration projects with external ratings. Servicing such debt with revenue from the new properties in a development helps ensure that the beneficiaries pay, but is likely to be more complicated in situations (such as brownfield development) where existing residents also gain.

Irrespective of how infrastructure is financed upfront, existing residents have an incentive to oppose development where they are eventually liable through rates. Giving councils access to additional revenue linked to local development could overcome this problem by improving the fiscal dividends from growth. Local governments should be allowed to apply targeted rates to the value "uplift" that occurs following new infrastructure development, even if implementing such value capture can be difficult in practice; shifting the rate base to unimproved land value would be another way to target uplift while encouraging densification and improving equity. More user charging for road and water infrastructure would be fairer in terms of "user pays" and could also reduce the need for additional infrastructure spending. Steps were recommended in the 2017 *Survey* to increase New Zealand's poor construction industry productivity, which has also constrained new supply.

The government is taking a more active role in increasing housing supply through Kiwibuild, with the dominant delivery mechanism to date involving government underwriting or purchasing of new homes "off the plans" and allocating to eligible first-home buyers via a ballot. Kiwibuild offers potential benefits through increasing housing supply and smoothing construction cycles, but only to the extent that new dwellings would not otherwise have been delivered by the private sector. The programme could be better targeted, as direct beneficiaries are sufficiently well-off to buy a home and the income threshold is so high that it only excludes 8% of potential first home buyers. Other OECD countries, including Austria, Canada, France and Germany, promote delivery of affordable housing without incurring the same fiscal risks or hands-on allocation role, primarily through subsidising construction of affordable (often rental) housing. Re-focusing KiwiBuild on enabling the supply of land through aggregating fragmented land holdings and de-risking development sites, with subsidies to developers of affordable housing if necessary, would allow private and not-for-profit developers to take the lead in delivery and allocation of affordable housing and better allocate risks to those best placed to manage them.

Other forms of housing support should be reviewed. Subsidies for home ownership, which compound tax advantages, should be consolidated and reduced. Tenure-neutral housing allowances through the Accommodation Supplement are a better way to support affordability. However, around one third of the benefits are estimated to accrue to landlords through higher rents (Hyslop and Rea, 2018[61]) and allowances are already high by international comparison. There may be scope to better target payments by phasing out housing allowances more rapidly with increasing income.

Improving outcomes for low-income renters

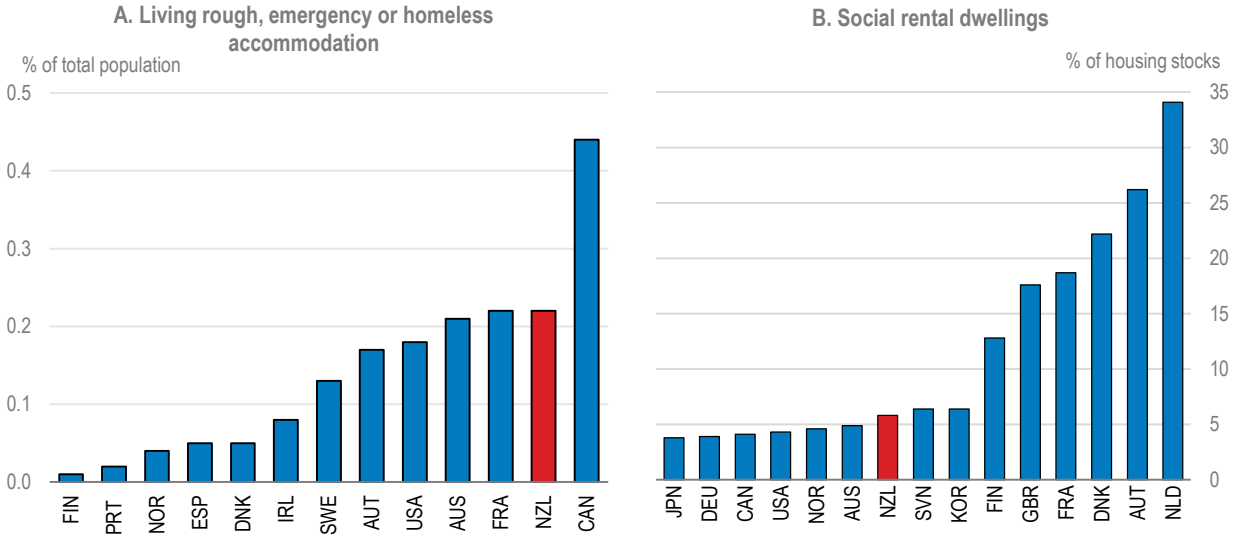
Rental quality and security of tenure are low. While there can be mobility advantages from ease of moving, duration of tenure has been found to be associated with better outcomes for some well-being dimensions, notably children's education. Proposals currently under consultation would go some way to improving security of tenure. One missing component is some restriction to keep rent increases for incumbent tenants from diverging too far from market trends. Germany has fostered a successful private rental sector through leaving initial rents effectively unregulated and tying subsequent increases to local reference rents, with greater increases permitted in proportion to any renovation expenditure (de Boer and Bitetti, 2014[62]).

Social housing supply is low by international comparison and there are poor outcomes for at-risk groups, including overcrowding, low quality housing and high homelessness (though international comparability here is problematic – Figure 33). The share of

homeless people increased from 0.8% in 2006 to 1.0% in 2013 with an increase in the incidence of temporary sharing with others (Amore, 2016[63]). Deteriorating access to affordable housing was a contributing factor. Access to social housing delivers improvements in a number of well-being dimensions, including health, education and life satisfaction. Expansion of social housing will need to go beyond the planned 6 400 units over four years just to meet current demand from those with highest need; substantial broadening of exemptions from tenancy reviews will add to demand (Table 10). Further entry of community housing providers should be encouraged through allowing competition with Housing NZ on a level playing field.

Figure 33. Homelessness is high and social housing stocks are low

2015 or latest year available



Note: Definitions of homelessness and the methodology for measuring it vary by country. New Zealand's numbers are based on the census, whereas many other countries use surveys of relevant social support agencies, which are less likely to identify homeless people. Data in Panel A exclude people living in institutions, in non-conventional dwellings or temporarily sharing with another household due to lack of suitable alternatives, which are included in the total homeless population for some countries. New Zealand has a relatively large proportion of people temporarily sharing with another household, but in part this reflects the census approach and a broader definition to that used in other countries. For example, Australia applies stricter rent and income thresholds for those sharing temporarily to be considered homeless. For details, see https://www.oecd.org/els/family/HC3-1-Homeless-population.pdf.

Source: OECD, *Affordable Housing database,* http://www.oecd.org/social/affordable-housing-database.htm and national sources underlying the database.

SatLink https://doi.org/10.1787/888933949176

Table 11. Past OECD recommendations on housing

Recommendations in past Surveys	Actions taken since the previous *Survey*
Improve house price supply response: • Adopt spatial planning for all urban areas • Reform the Resource Management Act to better incorporate urban development needs. • Reduce the scope for vested interests to thwart rezoning and development that would be in the wider public interest.	The government's Urban Growth Agenda seeks to rectify urban planning problems (Box 2).
Consider diversifying revenue sources for infrastructure funding. Enhance councils' incentives to accommodate growth, for example by sharing in a tax base linked to local economic activity. Apply user charging more broadly for infrastructure, including congestion charging.	Work is underway on developing special purpose vehicles for infrastructure funding, as is a Productivity Commission inquiry into Local Government Funding and Financing. A Joint Auckland and central government project is investigating potential application of congestion charging.
Facilitate competition in construction through a Commerce Commission market study and extending suspension of anti-dumping actions on residential building materials.	The suspension of anti-dumping actions on residential building materials was extended in 2017.
Limit the tax deductibility of losses from rental property investments by only allowing them to be offset against future rental income.	The government has proposed ring fencing of rental losses.
Raise the supply of social housing for low-income households. Increase targeted housing subsidies for low-income households that are not in social housing.	An additional 6 400 social housing units are planned over the next four years. The Maximum Accommodation Supplement payments was increased from 1 April 2018 to reflect increased housing costs.
Begin regular tenancy re-assessments for all occupants of social housing, accompanied by increased efforts to help tenants achieve financial independence and self-sufficiency.	Social housing tenancy reviews were put on hold between September 2018 and February 2019. Exemptions were broadened to cover 81% of tenants, including those with children aged 18 or under and those aged 65 or over.
Evaluate whether state housing tenants requiring more permanent housing provision, such as the elderly and disabled, may benefit from placement in specialised long-term housing facilities better adapted to their needs.	The government has funded registered charities that provide specified housing options for older people. Some local authorities are also active in the provision of pensioner housing.
Remove water rate subsidies to tenants paying market rents.	No action taken.
Treat Kiwisaver withdrawals for first-home purchases as interest-bearing loans or limit to low-income members.	No action taken.

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Thematic chapters

Chapter 1. Well-being: performance, measurement and policy innovations

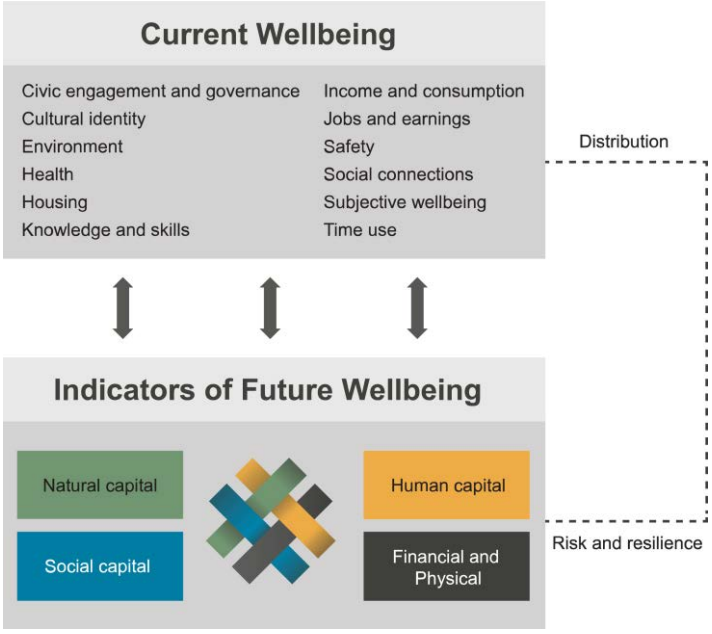
From an international perspective, New Zealand fares well in several aspects of current well-being, but faces challenges in housing affordability, household income and earnings, mental health, and child well-being. There are also large inequalities for health and educational outcomes, and a high share of economically vulnerable people. Social capital is a particular strength, but New Zealand's natural assets are being depleted. The Treasury has developed its Living Standards Framework and associated Dashboard to integrate well-being evidence more systematically in its advice to the Government. The Dashboard is consistent with international measurement practice, but has some indicator gaps, particularly for natural capital. The New Zealand Government is applying a well-being approach to policy and budget decision-making, including legislating for well-being objective-setting and reporting. Continuing to develop the evidence base that supports the well-being approach is critical. Effective implementation requires further investment in methodological development, civil service capacity-building, and strong leadership across government.

Introduction

The past decade has seen increasing interest in using well-being evidence in a more systematic way to support policy making. Evidence-informed policy is core practice in OECD countries, yet all governments struggle to integrate evidence effectively across the wide range of well-being outcomes that matter to people. An emphasis on GDP growth, economic efficiency, and managing fiscal pressures can mean that the wider impacts of policies on people's lives - including household living standards, social and environmental outcomes - are often less systematically quantified and assessed. The sustainability of outcomes over time, and their distribution across the population, also often get less focus than shorter-term and aggregate outcomes. And although much policy evidence goes well beyond the analysis of economic and fiscal impacts (for example in health, education and environmental spheres), this is often constrained by departmental silos. This means that policy trade-offs are not always well evidenced and debated, and there are missed opportunities for synergies across policy settings. As a result, opportunities for efficiency savings are lost, priority-setting is less well-informed, and accountability for the broader impact of policy on people's lives is reduced.

In recognition of these challenges, the New Zealand Treasury began to develop a Living Standards Framework in 2011 (Figure 1.1 shows the most recent version). Its primary aim is to improve the depth, breadth and quality of Treasury's policy advice to current and future Governments (New Zealand Treasury, 2018[1]), prompting analysts to consider the broad well-being impacts of policy options. The Living Standards Framework has supported the current Government's strategic emphasis on improving the well-being of New Zealanders and their families (New Zealand Government, 2018[2]). Nevertheless, the Framework remains first and foremost a tool developed by and for Treasury analysts, to provide high quality policy advice in the context of the priorities set by the government of the day.

Figure 1.1. New Zealand Treasury's Living Standards Framework, 2018 edition



Source: New Zealand Treasury (2018), *Living Standards Framework: Introducing the Dashboard*, https://treasury.govt.nz/publications/tp/living-standards-framework-introducing-dashboard

Measurement challenges hinder people-centred policy analysis, but high-quality and internationally comparable measures of well-being and sustainability are increasingly becoming part of national statistical practice in OECD countries. Since the early 2000s, several governments have developed multidimensional frameworks and dashboards of well-being indicators. In New Zealand, measures of well-being have been collected in various forms for nearly two decades. In December 2018, the Treasury publicly released its first Living Standards Framework Dashboard, with 55 indicators spanning the dimensions shown in Figure 1.1 (New Zealand Treasury, 2018[3]). Quantifying well-being outcomes can raise their profile in public policy debates, but frameworks and measurement initiatives are only the first step in building and applying a broader evidence base to policy. The challenge now faced by governments is how to embed well-being evidence more systematically throughout policy decision making, including in budgets, cabinet committees and other routine processes, such as policy evaluation. Recent applications of the Living Standards Framework, including through a "Wellbeing Budget" in 2019, are important steps in this direction.

This chapter examines the use of well-being frameworks and evidence as tools for better policy-making, and offers recommendations for New Zealand in three key areas. The first relates to opportunities for raising well-being in New Zealand, as viewed from an international perspective. The second concerns the Treasury's Living Standards Framework and measurement Dashboard, exploring how these compare to other initiatives internationally, as well as New Zealand's current policy priorities. The third addresses integrating the Living Standards Framework more systematically into the machinery of government, to improve the evidence base and how policy advice is generated and used.

New Zealand's well-being in an international context

Improving the well-being of New Zealanders and their families is one of three strategic priorities for the coalition government (New Zealand Government, 2018[2]), alongside building a productive, sustainable and inclusive economy, and providing new leadership by government. Applying the OECD approach to measuring well-being (OECD, 2017[4]; OECD, 2011[5]), this section offers an international perspective on opportunities to raise New Zealander's outcomes from three different viewpoints: comparative current levels, trends since 2005, and the size of inequalities relative to those observed in other OECD countries. It also discusses how the priorities selected for the 2019 Budget align with this international analysis.

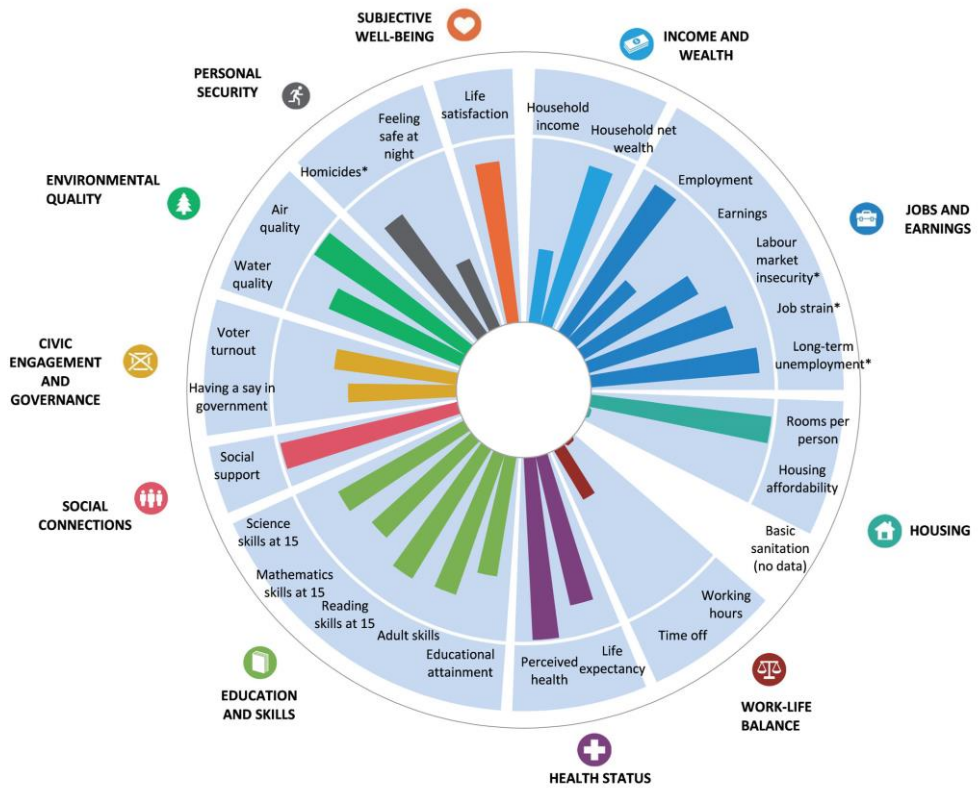
The big picture on New Zealand's well-being

The OECD's *How's Life?* framework measures well-being through a set of more than 50 indicators (Figure 1.2). These are drawn from nationally representative data, generally sourced from national statistical office or OECD datasets. The majority of indicators are based on objective data, used to capture aspects of people's living conditions today and the four capitals (financial and physical, natural, social and human) that help to sustain well-being over time. These are complemented by a limited number of subjective measures, such as life satisfaction, to take into account how people experience their lives.

Relative to other OECD countries, New Zealand performs well across several headline indicators of the *How's Life?* framework (Figure 1.2).[1] Nevertheless, there is still room for improvement, and some negative trends need to be counteracted. Good average performance sometimes also masks well-being inequalities that are larger than the OECD average.

Figure 1.2. On average, New Zealand performs well on several OECD *How's Life?* indicators

A. Current well-being



B. Capitals for future well-being

NATURAL CAPITAL		FINANCIAL & PHYSICAL CAPITAL		HUMAN CAPITAL		SOCIAL CAPITAL	
GHG emissions from domestic product on	❸ ➡	Produced fixed assets	❷ ➡	Young adult educational attainment	❷ ➡	Trust in others	❶ ⬌
CO2 emissions from domestic consumpt on	❷ ⬅	Gross fixed capital formation	❷ ⬅	Educational expectancy	❷ ..	Trust in the police	❶ ..
Exposure to PM2.5 air pollution	❶ ➡	Intellectual property assets	❷ ➡	Cognitive skills at age 15	❶ ⬅	Trust in the national government	❶ ⬌
Forest area	❶ ⬅	Investment in R&D	❸ ⬌	Adult skills	❶ ..	Voter turnout	❶ ⬌
Renewable freshwater resources	❶ ..	Household debt	❷ ⬅	Long-term unemployment	❶ ⬅	Government stakeholder engagement	❶ ..
Freshwater abstractions	❸ ..	Household net wealth	❶ ..	Life expectancy at birth	❷ ➡	Volunteering through organisations	❶ ⬌
No comparative data on threatened species		No comparative data on Financial net worth of government, Financial net worth of the total economy, and Banking sector leverage		Smoking prevalence	❶ ➡		
				Obesity prevalence	❸ ⬅		

Note: This chart shows New Zealand's relative strengths and weaknesses in well-being compared with other OECD countries. For the current well-being wheel, for both positive and negative indicators (marked with an "*"), longer bars always indicate higher well-being. No comparative data is available on basic sanitation. For the future well-being dashboard: ❶ = top-performing OECD tier, ❷ = middle-performing OECD tier, ❸ = bottom-performing OECD tier. Change is shown from 2005 to the latest available year, which is generally 2016. Forward arrows (in green) signify improvement over time, backward arrows (in black) indicate worsening, and level arrows (grey) indicate little change. Missing time trend data is indicated as "..".
Source: Adapted from OECD *How's Life? 2017* (2017[4]) unless otherwise indicated in the StatLink.

StatLink https://doi.org/10.1787/888933948625

Combining comparative well-being performance with data on changes since 2005, and the distribution of outcomes across population groups, can inform priorities for policy action (Figure 1.3). Outcomes to safeguard are those where New Zealand performs well internationally, and recent changes have been either positive or stable (top right quadrant). These include a comparatively high employment rate, strong social capital and civic outcomes, and good air quality. In other areas, New Zealand starts from a comparatively lower base but has made progress in recent years which requires further strengthening (bottom right). This includes rising household disposable income and earnings, fewer people working very long hours, growing investment in research and development, and increases in people's feelings of safety. A companion paper (Fleischer, Frieling and Exton, forthcoming[6]) discusses these in greater detail.

Figure 1.3. Opportunities for improving New Zealand's well-being: an international perspective using the OECD approach

		Change over time since ~ 2005	
		Worse than before	Same or better than before
International comparison: Current OECD ranking	Good	**WATCH CLOSELY** Falling cognitive skills at age 15 Rising long-term unemployment	**SAFEGUARD** High employment rate Strong social support and civic engagement Strong social capital High life satisfaction
	Bad	**COUNTERACT** High economic vulnerability, rising household debt, and rising labour market insecurity Low housing affordability High and rising obesity prevalence Mental health problems High per capita greenhouse gas emissions, threats to water quality and biodiversity	**STRENGTHEN** Rising disposable household income and earnings Fewer people working long hours Increased feeling of safety Low investment in R&D
Inequalities			
REDUCE LARGE INEQUALITIES IN:			
Health and educational outcomes Employment and material well-being outcomes Child well-being			

Note: OECD time series data are not available for all indicators, including renewable freshwater resources, freshwater abstractions, threatened species, household net wealth, adult skills, educational expectancy, trust in the police and government stakeholder engagement. These indicators have therefore not been included here.

Indicators in which New Zealand still ranks well but has lost ground over the past decade should be watched closely (top left). They include rising long-term unemployment and falling cognitive skills at age 15. Areas of poor and worsened performance require urgent action to counteract them (bottom left). This includes low and worsening housing affordability, high economic vulnerability, rising household debt, high per capita greenhouse gas emissions, high and rising obesity rates, and mental health problems. New Zealand's water quality and biodiversity are also under threat (OECD, 2017[7]). Analysis of inequalities points to the importance of reducing gaps in health and educational

outcomes, which are particularly high by international standards, as well as child well-being, and large ethnic differences in a broad range of well-being dimensions.

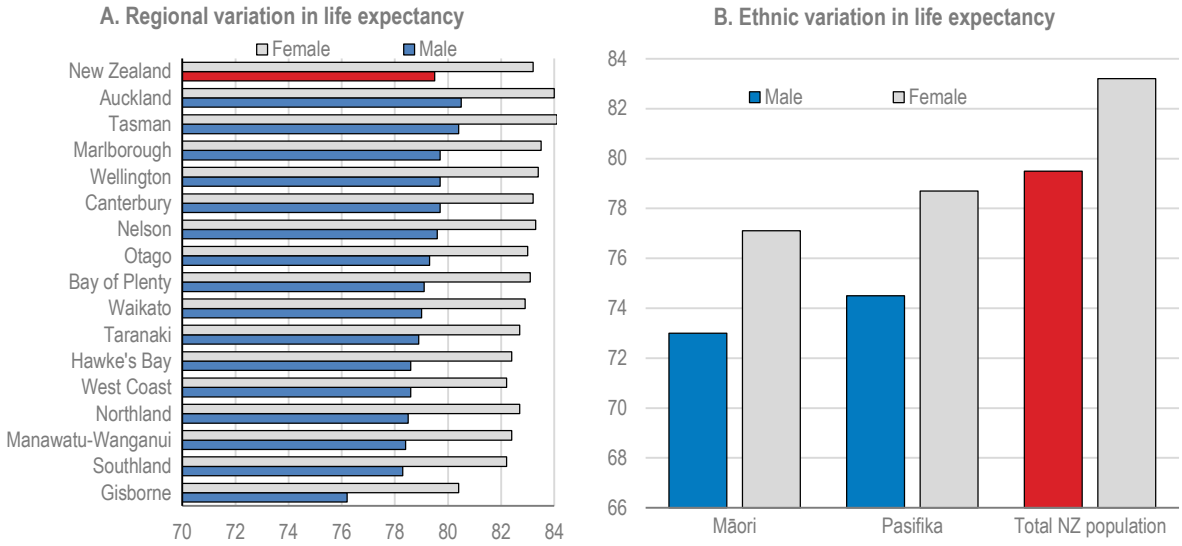
Key opportunities for improving New Zealand's well-being

Reduce health inequalities, and address mental health and obesity challenges

88% of New Zealanders report being in good health, and life expectancy is about 1.5 years above the OECD average. Nevertheless, inequalities in life expectancy, measured as the standard deviation in age of death, are among the largest in the OECD (OECD, 2017[4]). Life expectancy varies considerably between regions and ethnic groups (Figure 1.4). Rates of amenable mortality - i.e. deaths under age 75 that could potentially be avoided given effective and timely healthcare - are about 2.5 times higher for Māori and Pasifika than for the rest of the population (Ministry of Health, 2017[8]).

Figure 1.4. Inequalities in health outcomes in New Zealand

Median years of life, average 2012-14



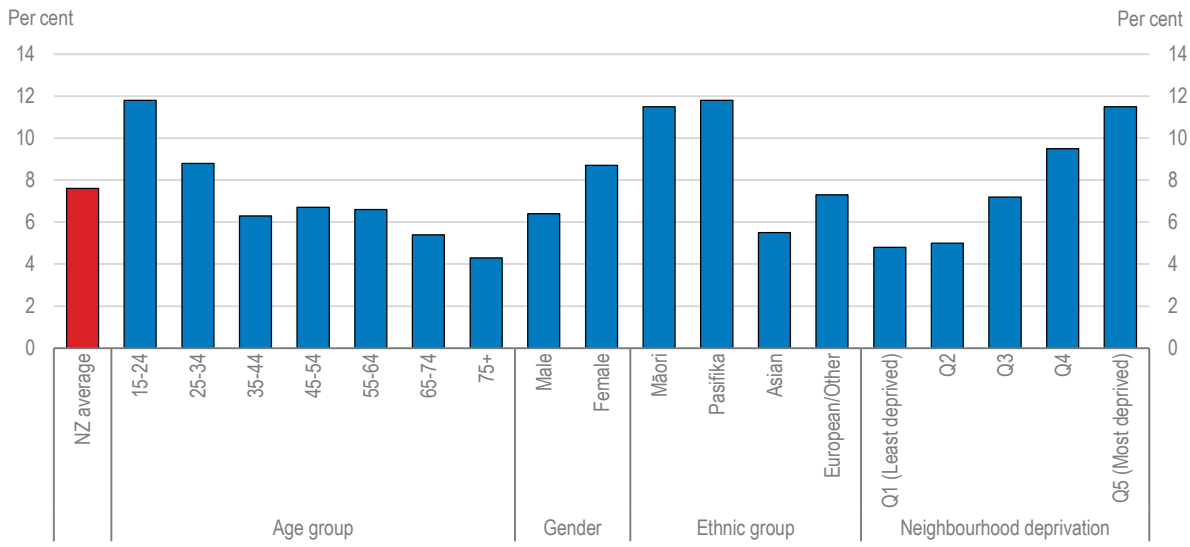
Source: Stats NZ, *New Zealand Period Life Tables 2012-14,* http://archive.stats.govt.nz/browse_for_stats/health/life_expectancy/NZLifeTables_HOTP12-14.aspx.

StatLink https://doi.org/10.1787/888933949195

Between 2006 and 2017, New Zealand's prevalence of serious non-fatal intentional self-harm injuries increased substantially (to 5.3 per 100 000 people, up from 3.1 in 2006) and provisional data indicate an increase in suicides between 2015 and 2017 (Stats NZ, 2018[9]). New Zealand's overall suicide rate is close to the OECD average (OECD, 2019[10]; Stats NZ, 2018[9]), but its teenage suicide rate is among the highest in the OECD (discussed below). Mental health risk in New Zealand varies considerably with age, gender, ethnicity, and neighbourhood conditions (Figure 1.5): people living in the most socio-economically deprived areas are nearly three times more likely to report having experienced psychological distress in the past four weeks than people in the least deprived areas (adjusting for age, sex and ethnicity differences among neighbourhoods).

Figure 1.5. Large variation in the prevalence of psychological distress in New Zealand

Share of the population with "(very) high" probability of anxiety or depressive disorder, K10 score ≥ 12



Note: Unadjusted prevalence rates for each group. Ethnic groups are based on total response groups, meaning that each person has been allocated to all ethnic groups that they have identified with.
Source: Ministry of Health, *Annual Data Explorer 2016/17,* https://minhealthnz.shinyapps.io/nz-health-survey-2016-17-annual-data-explorer.

StatLink https://doi.org/10.1787/888933949214

In contrast with its low overall smoking prevalence (OECD, 2017[4]), New Zealand has the third highest adult obesity rate in the OECD, rising from 27% in 2006/07 to 32% in 2017/18 (Ministry of Health, 2019[11]). The prevalence of key health risks including obesity, physical inactivity and smoking is higher among Māori, Pasifika and people living in socio-economically deprived areas (Ministry of Health, 2017[12]).

Improve well-being for children and youth

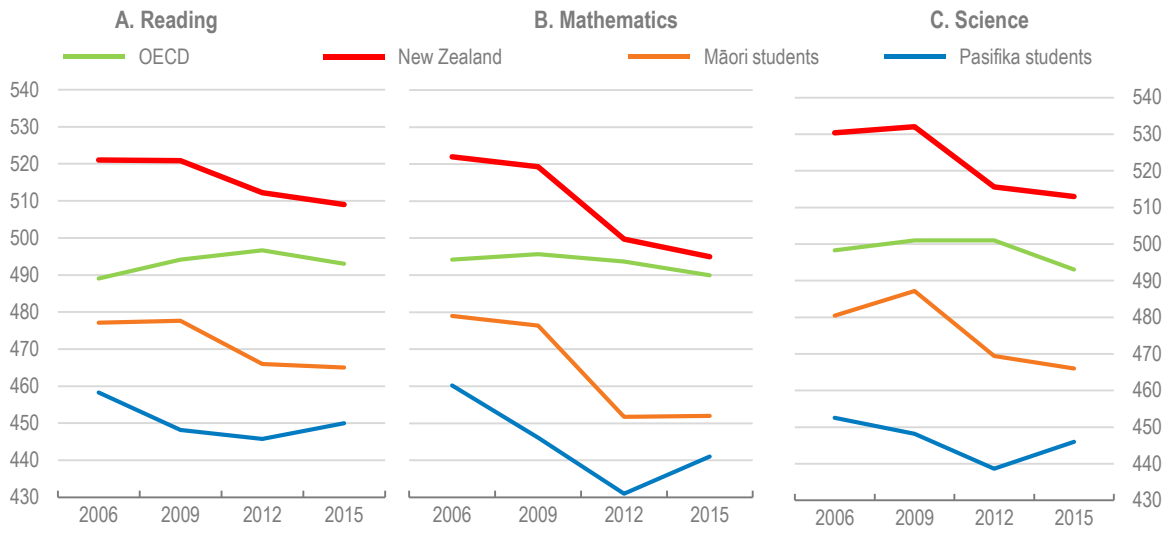
New Zealand's child poverty rate (based on a threshold set at half of the median income of each country, before housing costs) was 16.5% in 2018 (Stats NZ, 2019[13]), three percentage points above the OECD average in 2016 (OECD, 2019[14]). Rates are higher among Māori and Pasifika children, as well as for those living in sole-parent or jobless households (Ministry of Social Development, 2017[15]). Children in New Zealand are disproportionately affected by household crowding, with 16% of 0-19 year-olds living in crowded houses in 2013, as compared to a 10 % population average (Stats NZ, 2019[16]).

Child health concerns include a relatively high teenage birth rate (16 per 1000 women aged 15-19 in 2016, compared to an OECD average of 12.4 (OECD, 2018[17]), and high rates of obesity in children aged 2-14 years - which have risen from 8% in 2006/7 to 12% in 2016/17 (Ministry of Health, 2017[12]). New Zealand's suicide rate among young people aged 15-19 is over three times higher than the OECD average, and has increased by one third since 2000, counter to the OECD average fall of nearly 15% (OECD, 2017[18]).

Cognitive skills of students at age 15 fell between 2006 and 2015, and educational inequalities are wide (Figure 1.6). In general, the gap in achievement between students from advantaged and disadvantaged socio-economic backgrounds is relatively large in

New Zealand (May, Flockton and Kirkham, 2016[19]). Other student outcomes are also worrying: in 2015, New Zealand had the second worst score on the OECD Index of Exposure to Bullying, with 18% of students reporting frequent instances of being bullied. New Zealand students have also reported a weakening sense of belonging in school since 2003 (OECD, 2017[20]; TIMSS & PIRLS International Study Center, 2016[21])

Figure 1.6 Average cognitive skills for students aged 15 have fallen in New Zealand



Source: OECD, *PISA Results,* various years; S. May, J. Flockton and S. Kirkham (2016), *PISA 2015 - New Zealand Summary Report*, Ministry of Education.

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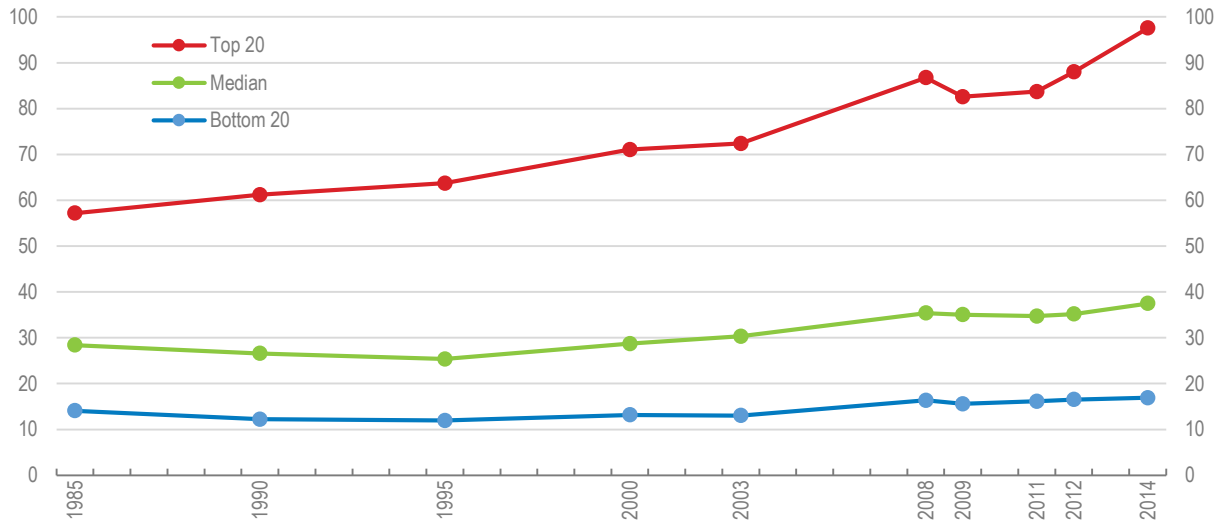
Secure better material conditions for all and reduce high economic vulnerability

Income inequalities in New Zealand have increased since the mid-1980s (Figure 1.7). Disposable income for New Zealand's top income quintile is 5.8 times larger than that for the bottom quintile (OECD, 2017[22]).[2] Between 2015 and 2018, the net worth of the richest 20% of New Zealand households increased (by NZD 394 000), while that of the bottom 40% did not change (Stats NZ, 2018[23]). In 2015, the age-standardised median net wealth of New Zealand Europeans was more than three times higher than that of the Asian population, five times that of Māori, and nine times that of Pasifika - though collective assets, such as Māori land and trusts, are not well captured by these statistics (Stats NZ, 2016[24]).

Compared to other OECD countries, the economic vulnerability of individuals is high: nearly two thirds of New Zealanders would be at risk of falling into poverty if they had to forgo three months of their income (Figure 1.8). Poor housing affordability in New Zealand (OECD, 2017[4]) further aggravates these vulnerabilities, with the burden disproportionately falling on those with lower incomes. Low-income households are less likely to own their home, and the majority of low-income renters now spend more than 40% of their gross income on housing (Chapter 3). Household debt as a share of income increased from 99% in 1998 to 164% in 2018 (Reserve Bank of New Zealand, 2019[25]).

Figure 1.7. Incomes for the top 20% have far outpaced the rest

Real annual equivalised household disposable income, thousand 2010 NZD



Note: Households' annual equivalised disposable income is calculated as the income of each household adjusted by the square root of household size. The figure shows absolute levels of median income as well as averages for people in the top 20% and the bottom 20% of the income distribution. This differs from the approach taken in the Living Standards Framework Dashboard, which reports income by percentiles. Data collections have been carried out periodically since 1985; the horizontal access indicates the years for which data are available. *Source:* OECD calculations based on the OECD *Income Distribution database,* http://stats.oecd.org/Index.aspx?DatasetCode=IDD.

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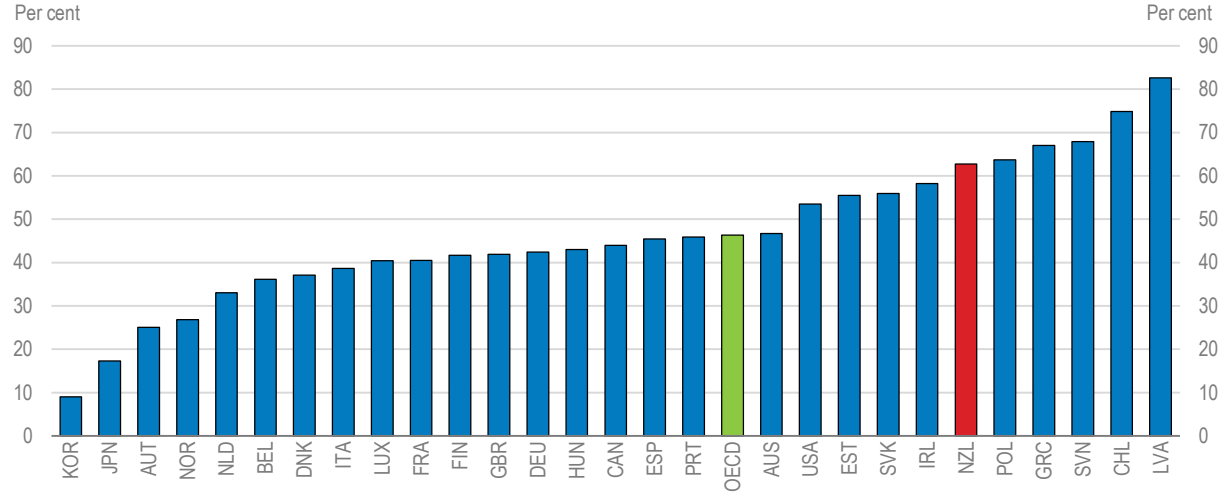
Figure 1.8. Asset-based poverty

Share of individuals with liquid financial wealth below 3 months (25%) of the national annual income poverty line, 2015 or latest available year



Source: Balestra, C. and R. Tonkin (2018), "Inequalities in household wealth across OECD countries: Evidence from the OECD Wealth Distribution Database", *OECD Statistics Working Papers,* No. 2018/01, OECD Publishing, Paris, https://dx.doi.org/10.1787/7e1bf673-en.

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New Zealand has a high level of employment, and a low rate of long-term unemployment. Nevertheless, both long-term unemployment and labour market insecurity increased following the global financial crisis, and have not yet returned to pre-crisis levels (OECD, 2017[22]), consistent with wider OECD trends. In 2018, the number of New Zealanders unemployed for over one year was four times higher than in 2008 (Stats NZ, 2018[26]), while labour market insecurity was 70% higher in 2015 than in 2007 (OECD, 2017[4]).

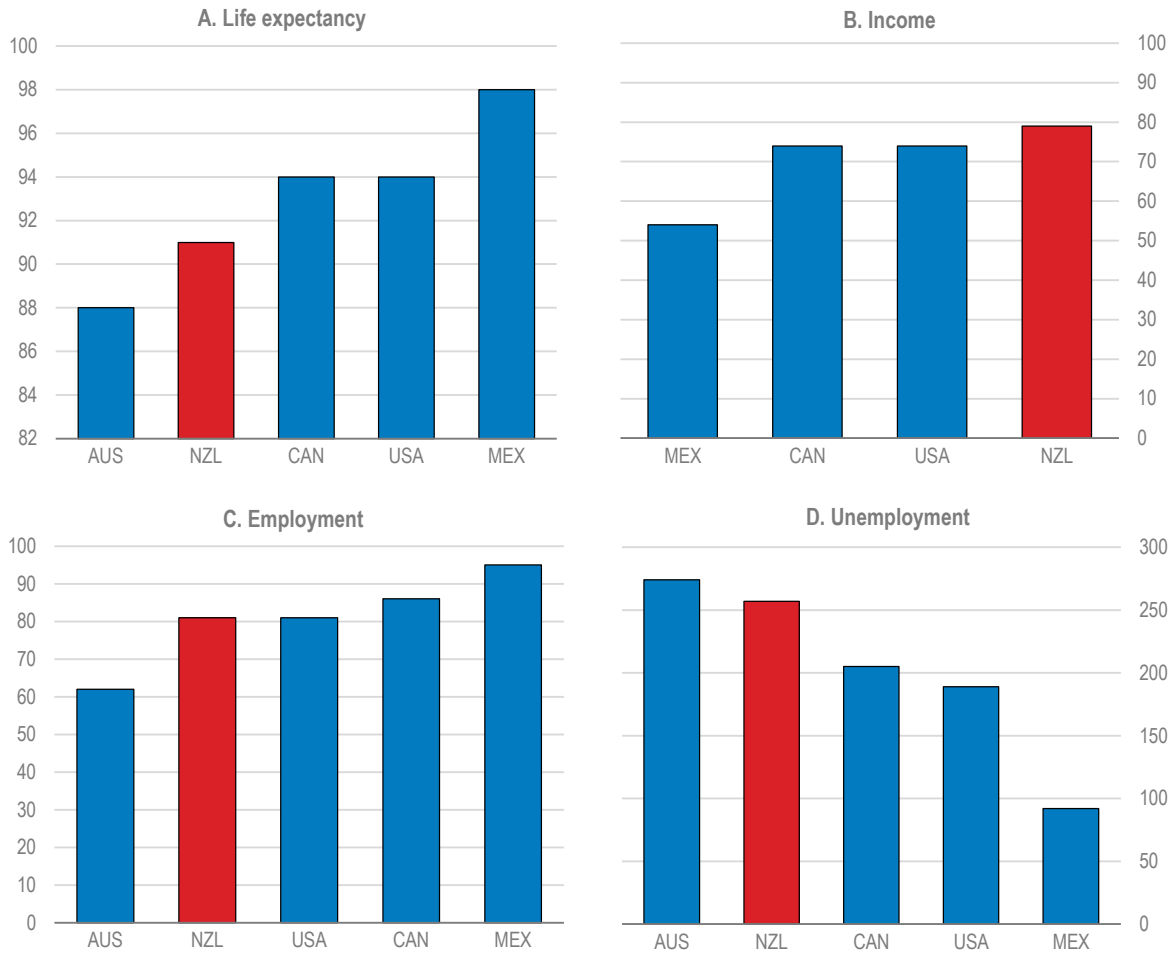
Raise outcomes for Māori

Gaps between Māori and non-Māori on life expectancy, employment and unemployment are larger than gaps between indigenous and non-indigenous peoples in Canada, the United States and Mexico (Figure 1.9).[3] Over the last intercensal period (2006-2013 in New Zealand) the differences between Māori and non-Māori widened for income, employment, unemployment and upper secondary educational attainment, while many of these gaps were shrinking in other OECD countries (OECD, 2019[27]).

The Treasury's Living Standards Framework Dashboard provides an analysis of outcomes for four major population groups (European, Māori, Pacific, and Asian), each of which have different profiles of well-being strengths and challenges (New Zealand Treasury, 2018[28]). For example, New Zealand Europeans report high levels of cultural identity (feeling they are able to be themselves in New Zealand), and have comparatively high housing, income and consumption outcomes. Although Māori experience lower well-being across most domains, differences in cultural identity for Māori are relatively small. Asians fare well on knowledge and skills, health, and safety, but have lower housing, income and consumption outcomes, and feel less able to be themselves in New Zealand. Pacific people report high social connections and subjective well-being, but poor housing, income and consumption, and cultural identity outcomes. Addressing inequalities and better understanding the requirements for strong well-being will be important for sustaining New Zealand's well-being over time, as Māori, Pasifika and Asians are projected to make up an increasing proportion of New Zealand's population over the next 20 years (Stats NZ, 2017[29]).

Figure 1.9. Māori fare better than other OECD indigenous peoples on income gaps, but often worse on life expectancy, employment and unemployment gaps

Values show indigenous levels as a percentage of non-indigenous levels



Note: The life expectancy rate of Indigenous Canadians is the weighted average of First Nations, Métis and Inuit women and men. Median income refers to total personal income for Canada; median household income for Mexico; median personal income for New Zealand; and median earnings for the United States. Non-Indigenous peoples' income corresponds to the median earnings of the total population for the United States. Employment and unemployment refer to people aged 15-64, as a percentage of the population of the same age, except for Canada where it refers to populations aged 15 and over.

Source: Adapted from OECD (2019), *Linking Indigenous Communities to Regional Development,* OECD Publishing, Paris. See StatLink for data sources and reference years.

StatLink https://doi.org/10.1787/888933949290

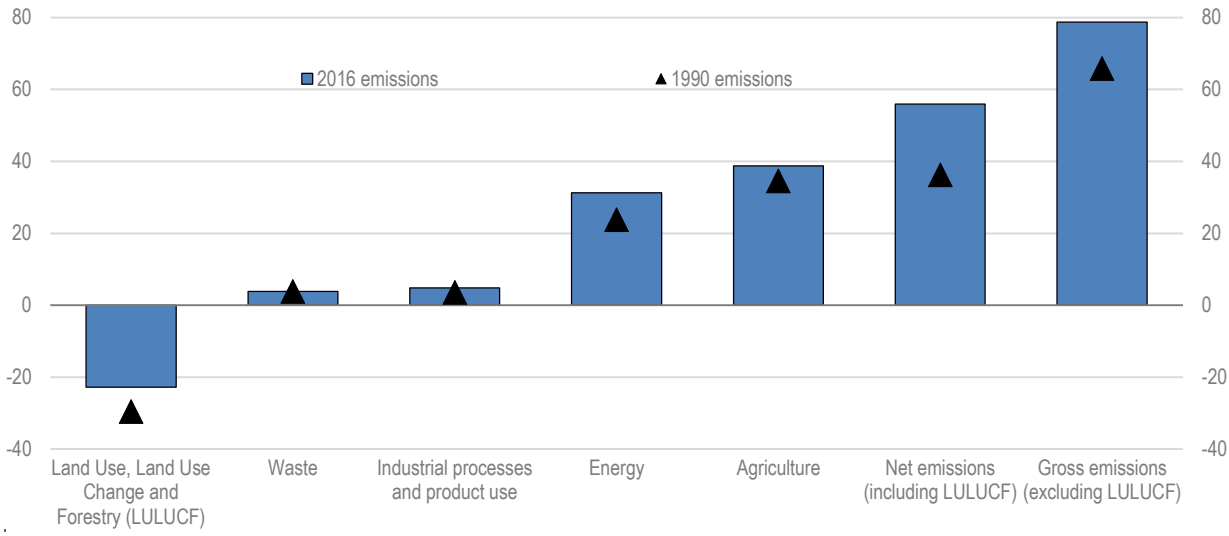
Curtail greenhouse gas emissions and biodiversity loss; improve water quality

The natural environment is an essential part of New Zealand's national identity, receiving a top rating from New Zealanders in terms of its importance in defining their country (Stats NZ, 2017[30]). New Zealand's air quality is very good by international standards and has improved over the past decade, driven mainly by a shift to cleaner home heating (Ministry for the Environment and Stats NZ, 2018[31]) (OECD, 2018[32]). However, expansion of primary production over the past decades, in particular dairy farming, has increased net

greenhouse gas emissions since 1990 (Figure 1.10), freshwater contamination, and threats to biodiversity (OECD, 2017[7]). High rates of population growth are placing further pressure on the environment, particularly in urban areas.

Figure 1.10. New Zealand's greenhouse gas emissions by sector

Megatons CO2-equivalent



Note: Net emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector are shown as a negative number because the sector removes more CO2 from the atmosphere than it emits. Columns may not sum up to the total due to rounding. Percentages are calculated from unrounded values.
Source: Ministry for the Environment (2018), *New Zealand's Greenhouse Gas Inventory: 1990-2016*, mfe.govt.nz/sites/default/files/media/Climate%20Change/final_greenhouse_gas_inventory_snapshot.pdf

StatLink https://doi.org/10.1787/888933949309

New Zealand's gross greenhouse gas emissions per capita and per unit of GDP are among the five highest in the OECD, largely due to its sizeable agricultural sector which accounts for nearly half of New Zealand's total emissions (OECD, 2019[33]). New Zealand forests offset just under a third of its gross emissions. Net emissions increased by 54% between 1990 and 2016 (Figure 1.10), as more forests were harvested, fewer trees were planted, and gross emissions rose (Ministry for the Environment, 2019[34]).

The 2019 Budget priorities and the international evidence on well-being

Five priorities for New Zealand's first well-being budget were set out in the 2019 Budget Policy Statement (New Zealand Government, 2018[35]):

a) Creating opportunities for productive businesses, regions, iwi (Māori tribes) and others to transition to a sustainable and low-emissions economy;
b) Supporting a thriving nation in the digital age through innovation, social and economic opportunities;
c) Lifting Māori and Pasifika incomes, skills and opportunities;
d) Reducing child poverty and improving child well-being, including addressing family violence;
e) Supporting mental well-being for all New Zealanders, with a special focus on under 24-year-olds.

The budget priorities were developed through analysis of New Zealand well-being evidence, in consultation with Chief Science Advisors, and sector experts. They are in line with some of the well-being challenges identified through comparison with other OECD countries (e.g. Figure 1.3). The first budget priority addresses the urgency to counteract New Zealand's high per capita greenhouse gas emissions and deteriorating natural capital. The second resonates with the identified need to strengthen investment in research and development. The third priority responds to the large ethnic inequalities in well-being outcomes in New Zealand. The fourth and fifth priorities are in line with the finding that child well-being and mental health are areas of high concern for New Zealand. However, many of these priorities reflect long-term systemic challenges that are unlikely to be reversed by a single short-term funding injection. Consideration must therefore be given to what can be done to foster better outcomes on a longer-term basis, through both budgetary and non-budgetary mechanisms.

While prioritisation means focusing on a relatively narrow set of issues, international evidence points to other opportunities to raise New Zealand's well-being, in addition to those identified in the 2019 Budget priorities. For example, housing affordability is not explicitly mentioned in the five priorities – although the government has argued that better housing will be a key mechanism for delivering the priorities (Institute of Public Administration New Zealand, 2019[36]) and has several ongoing initiatives to address this (Chapter 3). New Zealand's comparatively high rates of economic vulnerability, rising labour-market insecurity, and falling cognitive skills among students at age 15 are also not directly considered among the budget priorities, nor are high rates of obesity and large health disparities – though many of these outcomes are interrelated with the priorities selected. Ethnic inequalities are in need of urgent attention, but there are also other fault lines in New Zealand's well-being, including challenges faced by people in low-income households and single-parents. One test of the five budget priorities will be the extent to which they drive programmes that have positive spill-overs for these other well-being outcomes, which would indicate that efficient and effective policy levers have been selected.

New Zealand's Living Standards Framework from an international perspective

Frameworks for well-being in OECD countries

New Zealand Treasury's Living Standards Framework, launched in 2011, was one of the earliest well-being policy frameworks to be developed among OECD countries. In December 2018, the Treasury publicly released its Living Standards Framework Dashboard, which operationalises the conceptual framework through a concrete set of indicators (New Zealand Treasury, 2018[37]). Information in the Dashboard is organised on three different levels: current well-being among different population groups, which also considers the relationships between well-being domains (our people); trends over time and international comparisons (our country); and the four capitals (our future) (New Zealand Treasury, 2018[3]). This builds on a long history of well-being measurement across the New Zealand Government more broadly (Box 1.1).

Among other OECD countries, a general distinction can be made between frameworks focused on the measurement, monitoring and reporting of well-being (often, but not exclusively, led by national statistical offices), and those developed to support more direct policy applications (often led by treasuries, or other central bodies such as the Prime Minister's Office) (Table 1.1).

Table 1.1. National well-being frameworks across the OECD, selected countries

	Lead body	Launch year	Public consultation	Number of dimensions	Number of indicators
OECD Well-being Framework	OECD	2011		15	53
Well-being measurement, monitoring and reporting					
Measures of Australia's Progress	Australian Bureau of Statistics	2002	✓	26	147
Australia's Welfare	Australian Institute of Health and Welfare	2015		19	61
How's Austria?	Statistics Austria	2012		3	21
Belgium Complementary Indicators to GDP	National Accounts Institute + Federal Planning Bureau	2016		13	67
Belgium Sustainable Development Indicators	Federal Planning Bureau	2019		17	70
Finland Findicators	Statistics Finland	2009		12	97
Well-being in Germany	Federal Chancellery	2016	✓	11	48
Italy Measures of Equitable and Sustainable Well-being (full set)	National Institute of Statistics + National Council for the Economy and Labour	2013	✓	12	129
Israel Well-being, Sustainability and National Resilience Indicators	Central Bureau of Statistics	2015	✓	11	88
Korea Quality of Life Indicators	Statistics Korea	2014		12	81
Luxembourg Index of Well-being	Statec, Economic and Social Council + the Higher Council for Sustainable Development	2017	✓	11	63
Indicators Aotearoa New Zealand	**Stats NZ**	**(forthcoming)**	✓	**24**	**99**
Norway - How We Are Doing	Statistics Norway	2017		10	41
Indicators of Well-being in Slovenia	Institute of Macroeconomic Analysis and Development, Statistics Slovenia, Slovenian Environment Agency + National Institute of Public Health	2015	✓	20	90
United Kingdom Measures of National Well-being	The UK Office for National Statistics	2011	✓	10	43
Well-being policy application					
Australian Treasury's Well-being Framework	Treasury	2004		5	N/A
Canadian Federal Sustainable Development Strategy	Minister of Environment and Climate Change	2008	✓	13	25
Finland Strategic Government Programme Indicators	Prime Minister's Office	2015		5	29
France New Indicators of Wealth	Prime Minister's Office	2015	✓	3	10
Italy Measures of Equitable and Sustainable Well-being (short set)	Ministry of Economics and Finance	2016	✓	8	12
Latvia 2030	Cross-Sectoral Coordination Centre, under the authority of the Prime Minister	2010	✓	7	55
Netherlands Monitor of Well-being	Netherlands Cabinet + Statistics Netherlands	2017		15	47

New Zealand Living Standards Framework Dashboard	**Treasury**	**2011/18**	**✓**	**16**	**55**
Northern Ireland Outcomes Delivery Plan	Northern Ireland Executive Office	2018		12	54
Poland Responsible Development Index	Polish Economic Institute	2019		3	8
Scotland National Performance Framework	Scottish Government	2007	✓	11	81
Slovenia National Development Strategy 2030	Slovenian Government	2017	✓	12	30
Sweden New Measures of Well-being	Ministry of Finance	2017		15	15
United Kingdom Personal and Economic Well-being bulletin	Office for National Statistics	2019		2	12
Well-being of Wales	National Assembly for Wales + Welsh Government Chief Statistician	2015	✓	7	46

Note: Launch time refers to the actual release of a framework, rather than commissioning of its development. Number of indicators refers to the dashboards as of May 2019. Measures of Australia's Progress was discontinued in 2013, and the Australian Treasury's Well-being Framework in 2016. Australia's Welfare reports have been published since 1993. The Canadian Federal Sustainable Development Strategy refers to the 2016-19 version. The Scottish Government's National Performance Framework was first launched in 2007; the number of dimensions and indicators refers to the refreshed 2018 edition.
Source: Exton and Shinwell (2018[38])

The Living Standards Framework's conceptual underpinnings

The Living Standards Framework has undergone several iterations (Exton and Shinwell, 2018[38]). The December 2018 edition (Figure 1.1) is in line with international practice in terms of the dimensions and concepts covered (Figure 1.12, further down). For example, all existing national frameworks across the OECD feature well-being as a multidimensional construct, and take into account both objective and subjective aspects of people's lives. Common domains of current well-being include income, jobs, housing, health, skills, safety, time use, environment, social connections and subjective well-being. The Living Standards Framework also reflects the specific New Zealand context, most notably through the inclusion of a cultural identity dimension, recognising New Zealand's unique culture, including the partnership enshrined in the Treaty of Waitangi, multicultural origins and diverse immigrant population.

A comparative strength of the Living Standards Framework is that it makes a conceptual distinction between individual well-being outcomes "today" and the broader systems and means to sustain these over time (New Zealand Treasury, 2018[39]). Differentiating between current and future well-being helps to monitor whether a country is maximising the former at the cost of the latter, to clarify intertemporal trade-offs in policy design, and to emphasise the intergenerational character of well-being (Stiglitz, Sen and Fitoussi, 2009[40]; UNECE, 2013[41]; UNU-IHDP and UNEP, 2014[42]; OECD, 2015[43]) While several dashboards mix sustainability indicators with current well-being outcomes, only three other initiatives – the OECD Well-being Framework, Belgium's Complementary Indicators to GDP and the Dutch Well-being Monitor – currently make explicit this distinction between current well-being and sustainability. In a further step, the Living Standards Framework also acknowledges the roles of risk and resilience, which are key components of a systems approach to sustainability that emphasises interactions among the four capitals, and their joint role in producing current well-being outcomes (De Smedt, Giovannini and Radermacher, 2018[44]).

Box 1.1. New Zealand's long history of well-being measurement and evidence-building

Well-being measurement in New Zealand has a long history and spans multiple ministries and public bodies. As early as 2001, the Ministry of Social Development published its first Social Report (Ministry of Social Development, 2011[45]), with very similar domains to those for current well-being included in both the OECD approach and the Living Standards Framework Dashboard. The Social Report also strongly influenced the design of the biennial New Zealand General Social Survey, first fielded in 2008 to collect information about multiple well-being outcomes and their distribution across groups (Stats NZ, 2017[46]; Fleischer, Smith and Viac, 2016[47]).

Data availability expanded significantly in subsequent years, particularly in the social and environmental domains. In 2008 and 2010, Stats NZ produced two iterations of Measuring New Zealand's Progress using a Sustainable Development Approach, building on the earlier Monitoring Progress Towards a Sustainable New Zealand Reports from 2002 and 2003 (Stats NZ, 2011[48]). In 2011, a paper by the Treasury provided a snapshot of New Zealand's Living Standards (New Zealand Treasury, 2011[49]). Also in 2011, Stats NZ released the first prototype of its Integrated Data Infrastructure, a large database containing microdata about people and households from a wide range of government agencies, Stats NZ surveys and Census, as well as non-government organisations (Stats NZ, 2018[50]). This infrastructure provides a rich source of information for the Social Investment Agency, which strategically advises the government on improving outcomes for New Zealanders. Since its establishment in 2015, the Agency has produced various case studies on using a well-being approach to public policy, including on the well-being impacts of social housing (SIA, 2018[51]; SIA, 2018[52]; SIA, 2018[53]). The Ministry for the Environment and Stats NZ launched their Environmental Reporting series the same year (Ministry for the Environment and Stats NZ, 2015[54]).

The Treasury's 2018 Living Standards Framework Dashboard is a natural extension and consolidation of this previous work. Stats NZ's Indicators Aotearoa New Zealand, is a further large-scale well-being and sustainability dataset due to be launched in mid-2019.

Broad-based stakeholder support for well-being frameworks is an important factor for their uptake and longevity. Public consultation has often played a role in the development of measurement frameworks in other countries (Table 1.1). The Treasury invited feedback on its Living Standards Framework Dashboard proposal by publishing it on its website. 500 responses were received, as well as 60 submissions from the business and NGO sectors, academics, individuals, and government agencies (New Zealand Treasury, 2018[37]). While this implies a high per capita response rate when compared to similar consultations in other countries, these remain relatively low numbers.[4] Nevertheless, the Treasury was able to build on previous public outreach over the past four decades (e.g. consultations by the Royal Commissions on Social Security, as well as for the Ministry of Social Development's Social Report, Stats NZ's New Zealand General Social Survey, Measuring New Zealand's Progress Using a Sustainable Development Approach, and the Environmental Reporting Series). In developing its well-being approach, the Treasury has been transparent in putting material, from discussion papers to the budget guidance and cost-benefit analysis tools, into the public domain (e.g. (King, Huseynli and Macgibbon, 2018[55]; Janssen, 2018[56]; Van Zyl and Au, 2018[57]; Frieling, 2018[58]; Morrissey, 2018[59]; Yong, 2018[60]; Tavita and Levi-Teu, 2018[61]; New Zealand Treasury, 2018[62]), providing a platform for engagement and debate within New Zealand, and a valuable resource for other governments.

From frameworks to measurement: the Living Standards Framework Dashboard

Across OECD countries, the shape and size of well-being frameworks, and the associated dashboards of indicators, have varied according to their use. Frameworks focused on monitoring and reporting typically involve building a large evidence base on the state of a country's well-being (i.e. an indicator set) and making this information publically available.[5] The goal of these diagnostic exercises is usually to provide a comprehensive account of how life is going for people, including trends over time and inequalities among population groups. At the other end of the spectrum, frameworks that have been developed for specific policy applications often have far fewer indicators, as in France, Italy and Sweden, where a small set of indicators are reported during budgetary discussions. The Living Standards Framework Dashboard falls in the middle of this spectrum (Figure 1.11). It covers 554 indicators, including a few indicators for each of the 12 domains of current well-being and the four capitals.[6]

From mid-2019, Stats NZ's Indicators Aotearoa New Zealand (IANZ) initiative is expected to provide a suite of nearly one hundred well-being and other contextual indicators (Stats NZ, 2019[63]). This places it among the larger indicator sets in OECD countries (Figure 1.11), alongside several other broad-based well-being monitoring initiatives from national statistical offices. When the IANZ and Living Standards Framework Dashboard begin to be published in parallel, it will be important to clarify their different functions and complementarities. In the future, the Treasury's Dashboard, and the well-being approaches in several other New Zealand government agencies, are expected to draw from data provided in IANZ (see Figure 1.13, below). At the same time, some in-depth features of the Treasury's Dashboard, such as international comparisons, are not expected to feature in the IANZ data set, and will need to be drawn from other sources of data and analysis.

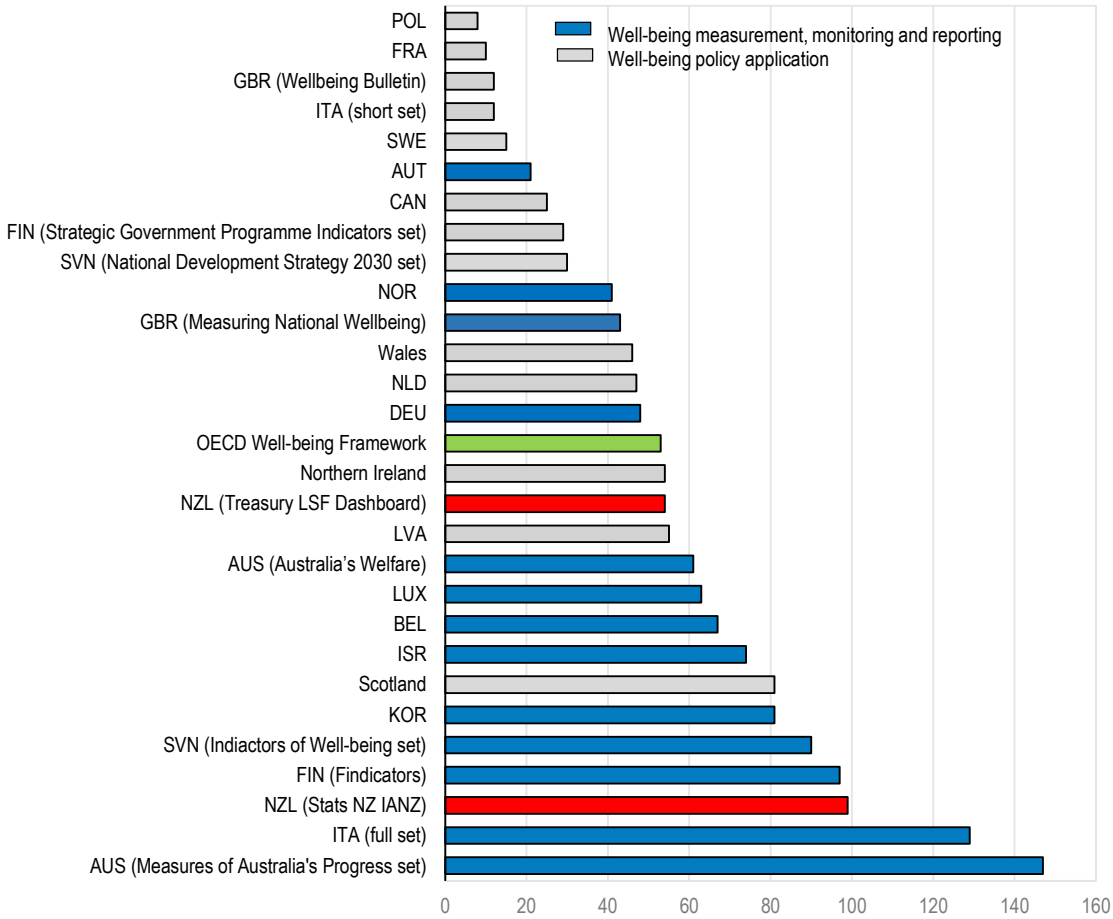
The Dashboard's indicator coverage is broadly consistent with that in other countries, but includes some gaps

The Living Standards Framework Dashboard is consistent with an emerging international consensus on the key "ingredients" of well-being: detailed content mapping of the Living Standards Framework dimensions and indicators against other well-being frameworks across the OECD shows a large degree of overlap, even if indicators are organised into domains in slightly different ways across countries (Figure 1.12).

Despite the overlap with other well-being frameworks, several themes and indicators consistently included in other countries' approaches do not feature in the Living Standards Framework Dashboard (Table 1.2). A variety of factors may explain these differences, ranging from data availability issues, to conceptual issues, to the need for parsimony and to focus on areas of greatest importance in the New Zealand context. When the Dashboard was introduced, the Treasury noted that further work was needed in particular to integrate Te Ao Māori perspectives and concepts of well-being; to develop indicators for New Zealand cultural identity; and to recognise the critical role of child well-being in intergenerational outcomes (New Zealand Treasury, 2018[1]). In addition, the Treasury signalled the need for future work on the risk and resilience components of the framework, institutions, knowledge and skills, human capital, the environment and natural capital, and trade-offs among the domains.

Figure 1.11. The LSF Dashboard has a middling number of indicators

Number of indicators per well-being framework



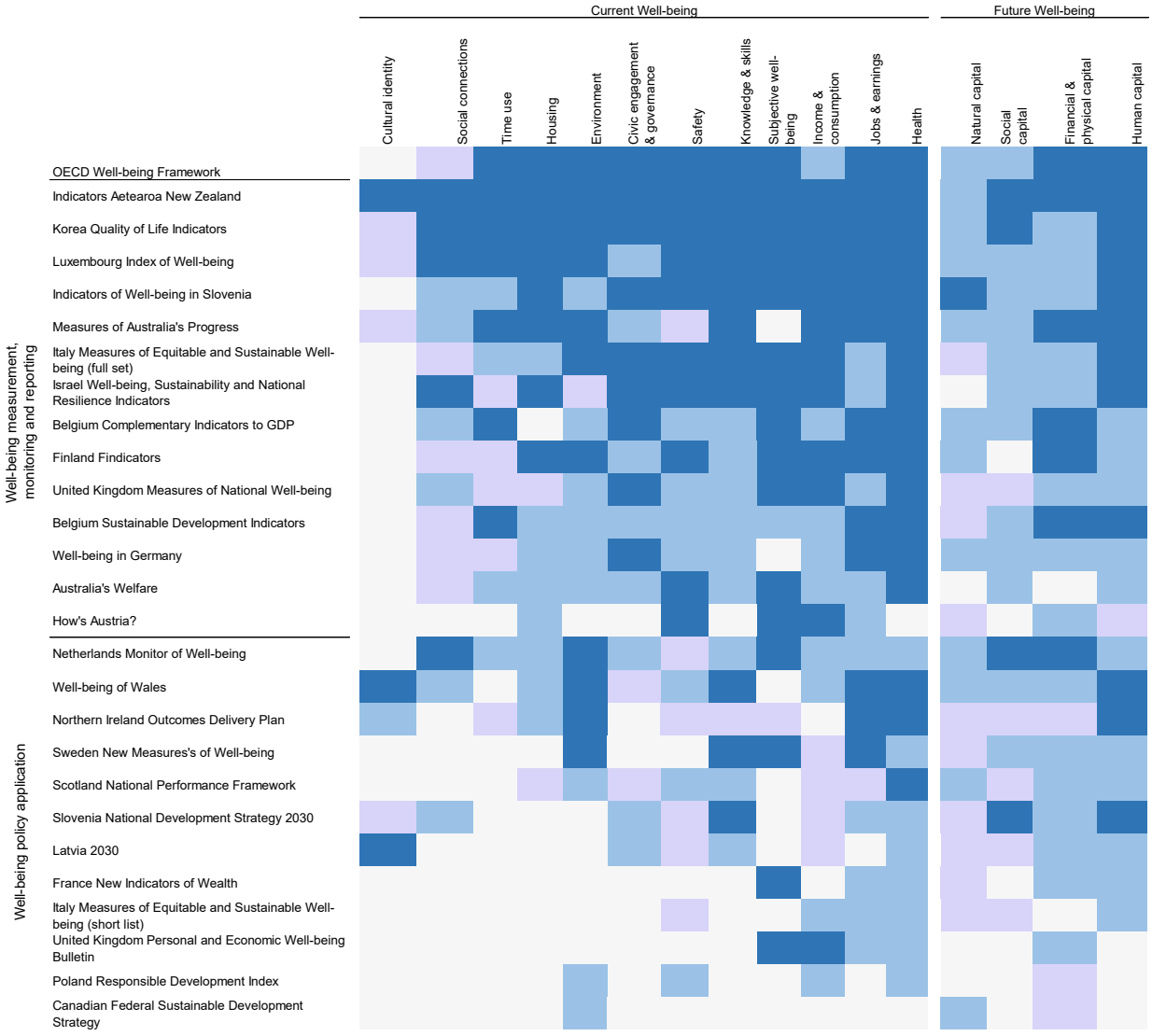
Note: The number of indicators refers to unique headline indicators as of May 2019. Information on Stats NZ's IANZ initiative is based on the proposed indicator list released on 9 April 2019.
Source: See StatLink for details of the data sources.

StatLink https://doi.org/10.1787/888933949024

In an international context, areas where the Dashboard's measurement gaps are greatest include natural capital, human capital and innovation (Table 1.2) (Fleischer, Frieling and Exton, forthcoming[6]). In some cases the data gaps in the current Dashboard mean that it is not reflecting existing indicators of high relevance, both to New Zealand's well-being performance internationally, and to the five priorities set out for the 2019 Wellbeing Budget. For example, maintaining and protecting New Zealand's unique natural capital base is of central importance for the sustainability of well-being and growth, as reflected in the priorities for the 2019 Budget (New Zealand Government, 2018[35]). Yet this is the area where the Treasury's Dashboard deviates the most from practice around the OECD (Table 1.2).[7] A further budget priority emphasises innovation, yet measures of investment in research and development or adult skills and lifelong learning, both of which feature in many other national well-being frameworks and speak to this priority, are currently absent.

Figure 1.12. The Living Standards Framework compared to other well-being frameworks

Comparison at the indicator level per Living Standards Framework dimension



Note: A dark blue shade indicates that 50% or more of the indicators included in the Living Standards Framework dimensions are also contained in the other well-being dashboard. Light blue indicates that less than 50% (but more than 0) are contained in the other well-being dashboard. Purple indicates that a dashboard includes the concept envisioned by the respective Living Standards Framework dimension, but in a very different way and with no comparable indicators. White indicates that the dimension of the Living Standards Framework is not covered in other frameworks. Only fully operationalised indicators (as of May 2019) are considered. Norway - How We Are Doing and the Finland Strategic Government Programme Indicators are not included as indicator details in English were not available.

Source: Fleischer, Frieling and Exton (forthcoming[6])

Table 1.2. Missing indicators commonly included in other well-being frameworks

Selected indicators not featured in the Living Standards Framework Dashboard

	Indicator	Other well-being frameworks featuring this indicator	# Frameworks
Natural capital	• Climate (greenhouse gas emissions, CO2 emissions, carbon footprint)	OECD, Australia (MAP + Welfare), Austria, Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Canada, Finland (Findicators+ Government Programme Indicators), France, Germany, Italy, Korea, Latvia, Indicators Aotearoa New Zealand, Netherlands, Northern Ireland, Scotland, Slovenia (Indicators of Well-being + National Development Strategy), Sweden, UK (Measures of National Well-being), Wales	23
	• Biodiversity (protected areas)	Australia (Welfare), Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Canada, Italy, Latvia, Netherlands, Northern Ireland, Scotland, Slovenia (Indicators of Well-being + National Development Strategy), Sweden, UK (Measures of National Well-being), Wales	14
	• Energy (renewable energy)	Canada, Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Finland (Findicators+ Government Programme Indicators), Latvia, Netherlands, Indicators Aotearoa New Zealand, Scotland, Slovenia (Indicators of Well-being + National Development Strategy), UK (Measures of National Well-being), Wales	13
	• Water quantity and quality (freshwater abstractions, nitrates/ nutrient pollution in rivers and lakes)	Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Canada, Finland, Latvia, Luxembourg, Netherlands, Northern Ireland, Slovenia (Indicators of Well-being + National Development Strategy), Wales	11
	• Waste recycling	Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Korea, Latvia, Luxembourg, Northern Ireland, UK (Measures of National Well-being), Wales, Finland (Government Programme Indicators)	9
Safety	• Crime victimisation	Australia (MAP + Welfare), Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Finland, Germany, Italy, Israel, Korea, Luxembourg, Netherlands, Indicators Aotearoa New Zealand, Northern Ireland, Scotland, Slovenia (Indicators of Well-being + National Development Strategy), UK (Measures of National Well-being)	17
	• Road accidents	Belgium (Complementary Indicators to GDP + Sustainable Development Indicators, Finland, Italy, Israel, Korea, Slovenia (Measures of Well-being)	7
Human capital	• Health behaviours (smoking, obesity rate, alcohol consumption, physical activity)	OECD, Australia (MAP), Belgium (Complementary Indicators to GDP + Sustainable Development Indicators, Finland, France, Italy, Israel, Korea, Netherland, Scotland, Slovenia (Indicators of Well-being), UK (Measures of National Well-being), Wales	14
	• Long term unemployment	OECD, Australia (MAP + Welfare), Finland, Israel, Luxembourg, Netherland, Slovenia (Measures of Well-being)	8
	• Early school leavers	Austria, Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), France, Italy, Korea, Latvia, Luxembourg, Northern Ireland, Slovenia (Indicators of Well-being)	11
	• Young people (not) in training or education	Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Italy, Israel, Finland (Government Programme Indicators), Indicators Aotearoa New Zealand, Scotland, Slovenia (Indicators of Well-being), UK (Measures of National Well-being)	9

Social capital	• Volunteering; social and political engagement	OECD, Australia (MAP), Germany, Italy, Israel, Korea, Latvia, Luxembourg, Netherlands, Indicators Aotearoa New Zealand, UK (Measures of National Well-being), Wales	12
	• Justice (time on remand of unsentenced prisoners, length of civil proceedings, prison density, guaranteeing of fundamental rights	Australia (MAP), Germany, Italy, Northern Ireland, Scotland, Slovenia (National Development Strategy)	6
Financial and physical capital	• Investment in R&D	OECD, Australia (MAP), Belgium (Complementary Indicators to GDP), Canada, Finland (Findicators + Government Programme Indicators), France, Germany, Italy, Latvia, Poland, Scotland	12
Knowledge and skills	• Adult skills and lifelong learning	OECD, Belgium (Complementary Indicators to GDP), Germany, Israel, Italy, Korea, Scotland, Slovenia (Indicators of Well-being + National Development Strategy)	9
Time use	• Satisfaction with work-life balance/ leisure time	Germany, Italy, Israel, Korea, Luxembourg, Netherlands, Indicators Aotearoa New Zealand, Northern Ireland, Slovenia (Indicators of Well-being), UK (Measures of National Well-being)	10
	• Commuting time	Finland, Germany, Italy, Korea, Luxembourg, Netherland, Northern Ireland	7
Social connections	• Someone to rely on in times of trouble	OECD, Australia (MAP + Welfare), Belgium (Sustainable Development Indicators), Italy, Israel, Korea, Latvia, Indicators Aotearoa New Zealand, UK (Measures of National Well-being)	10
Income and consumption	• Risk of poverty	Belgium (Complementary Indicators to GDP + Sustainable Development Indicators), Finland, Germany, Italy, Latvia, Luxembourg, Slovenia (Indicators of Well-being)	8
Jobs and earnings	• Job satisfaction	Australia (MAP), Germany, Italy, Israel, Korea, Indicators Aotearoa New Zealand, Wales	7
	• Labour market insecurity (real and perceived)	OECD, Italy, Luxembourg	3
	• Job strain and stress	OECD, Belgium (Complementary Indicators to GDP), Indicators Aotearoa New Zealand	3
Civic engagement and governance	• Having a say (in the community/what government does)	OECD, Australia (MAP), Germany, Scotland, Wales	5
Health	• Self-reported limited functioning	Australia (Welfare), Belgium (Sustainable Development Indicators), Luxembourg, Slovenia, UK (Measures of National Well-being)	5
Housing	• Satisfaction with housing/local area	Israel, Korea, Scotland, UK (Measures of National Well-being), Wales	5
	• Homelessness	Australia (MAP + Welfare), Wales	3
Subjective well-being	• Affect (experience of positive and negative emotions and states)	Korea, Slovenia (Indicators of Well-being), UK (Measures of National Well-being)	3
Cultural identity	• Feeling of belonging to an area where people from different backgrounds get on well and treat each other with respect	Northern Ireland, Wales	2
	• Uptake of citizenship by long-term immigrants	Australia (MAP)	1

Note: For Indicators Aotearoa New Zealand, only already developed indicators are listed.
Source: Fleischer, Frieling and Exton (forthcoming[6])

Natural capital measurement is a particularly challenging area in need of further investment. It is a domain that is poorly covered in the OECD's well-being framework, strongly hindered by a lack of internationally comparable data, and by the very wide range of indicators needed to capture environmental resources and ecosystem services comprehensively (OECD, 2017[4]; OECD, 2013[64]; OECD, 2015[43]). Nevertheless, several international indicators are available, and OECD data indicate that New Zealand performs poorly relative to other countries in terms of greenhouse gas emissions and soil nutrient balance, while Stats NZ data indicate worsening nitrogen pollution in rivers, measures that are currently missing from the Living Standards Framework Dashboard (Fleischer, Frieling and Exton, forthcoming[6]; OECD, 2017[7]). Most other well-being frameworks in OECD countries include related indicators (e.g. greenhouse gas emissions, CO2 emissions, carbon footprint) and energy (e.g. share of energy renewably produced). Likewise, the Living Standards Framework Dashboard includes no information on the state of New Zealand's protected areas. Although the Dashboard has measures of drinking water quality and water 'swimmability' (i.e. the share of tested river sites deemed safe to swim in under normal conditions), measures used elsewhere include nitrates/nutrient pollution in rivers and lakes, a particularly important issue in New Zealand (OECD, 2017[7]; New Zealand Treasury, 2011[49]).[8]

New Zealand is generally well-placed in terms of existing data infrastructure to fill some of these comparative gaps (Fleischer, Frieling and Exton, forthcoming[6]). Where these indicators are considered beyond scope by the Treasury, they could be considered for inclusion in other agency-specific frameworks (Figure 1.13), or in the forthcoming Indicators Aotearoa New Zealand dataset from Stats NZ – which is expected, over time, to address around half of the data gaps identified here (Stats NZ, 2019[63]). To ensure a good read-across with other international approaches, the international comparability of these measures will also be key.

Applying a well-being lens to policy in New Zealand

Implementing a well-being approach to policy

New Zealand is among a small but growing group of countries taking steps to embed well-being more deeply and systematically into policy processes (Exton and Shinwell, 2018[38]; Durand and Exton, 2019[65]). Since 2015, France, Italy and Sweden have each introduced well-being indicators in their budget deliberations. Slovenia, Scotland, Paraguay, Ecuador and Colombia have drawn on well-being evidence to inform their National Development Strategies and performance frameworks. Wales, the United Kingdom, Ecuador, Bhutan and the United Arab Emirates have each experimented with creating new institutional structures to champion well-being or to support a strengthening of the evidence base (such as Commissioner or Ministerial-level posts, or dedicated centres for gathering and disseminating evidence). The United Kingdom What Works Centre and Treasury have meanwhile provided analysts with methodological guidance and support to consider well-being impacts in ex ante appraisal and ex post evaluation of policy proposals and programmes.

Box 1.2. Well-being policy in New Zealand and the Living Standards Framework

The New Zealand Government has identified a broad range of changes to the public finance and state sector system that are needed to support its well-being vision. Some of these changes are led by the Treasury, often with implications for other ministries and agencies (e.g. the 2019 Wellbeing Budget), but others are led in other agencies (e.g. the Department for the Prime Minister and Cabinet's Child Poverty and Well-Being work; Stats NZ's Indicators Aotearoa New Zealand). The government's well-being approach includes:

- Embedding well-being in the Public Finance Act (1989). The current proposals will require the government to set out each year how its well-being objectives, together with its fiscal objectives, will guide its budget. The well-being objectives themselves will be set by the government of the day.
- The 2019 Wellbeing Budget, in which well-being evidence was used to shape the Budget priorities (New Zealand Government, 2018[35]), as well as to assess budget bids from government departments (New Zealand Treasury, 2018[62]). Agencies were also strongly encouraged to collaborate when developing budget bids.
- The Child Poverty Reduction Act, passed in late 2018, requires the government of the day to set long-term (10-year) and intermediate (three-year) targets on a defined set of child poverty measures, and to report annually on those measures. On Budget day, the government must report on progress towards its child poverty targets, and how measures in the Budget will affect child poverty. The Children's Act 2014 was also amended to require successive governments to develop and publish a child and youth well-being strategy, with a particular focus on improving the well-being of all children and young people; children with greater needs; reducing child poverty and mitigating the impacts of child poverty and of socio-economic disadvantage experienced by children; and improving the wellbeing of the core populations of interest to Oranga Tamariki-Ministry of Children. This includes setting desired outcomes, actions to achieve them, and reporting on measures of progress (Department of the Prime Minister and Cabinet, 2019[66]).
- The Local Government (Community and Well-Being) Amendment Act (2019) reinstates wording that was previously included (from 2002-2012) in the Local Government Act, stating that the purpose of local government is to "promote the social, economic, environmental and cultural well-being of communities, in the present and for the future".
- Embedding well-being into agencies' performance reporting. The government expects agencies to describe their contribution to improving inter-generational well-being. The Treasury is currently working with agencies to understand how best to embed a focus on intergenerational well-being in accountability documents. This is based on principles such as taking a longer-term view; thinking broadly about impacts, both positive and negative; working collectively towards shared outcomes; and recognising and building on existing frameworks, strategies or indicators. This ties into the government's wider proposals to revise the State Sector Act (1992) and to enable a more coordinated, joined up public service.

The Treasury has been developing its Living Standards Framework since 2011. It was developed as a conceptual tool to support improvements in the quality of the Treasury's advice through reminding Treasury analysts of the wider dimensions of well-being that

should be taken into account when formulating policy advice, and in considering the trade-offs between alternative policy options (Au and Karacaoglu, 2015[67]; Exton and Shinwell, 2018[38]). Although not initially intended as a well-being measurement initiative, illustrative indicators were put forward for discussion, even in the early stages of developing the Framework (New Zealand Treasury, 2011[49]). The work has been stepped up since 2017 to support the government's well-being approach:

- The Living Standards Framework was updated in 2018, and a new Dashboard of well-being indicators was released. Amongst other uses, the Dashboard aims to complement the standard macroeconomic and fiscal reporting that the Treasury publishes as part of the Budget process. For example, the 2019 Budget Policy Statement included a "Wellbeing Outlook", based on the Dashboard, to complement the standard Economic and Fiscal Outlook.
- Proposed amendments to the Public Finance Act will require the Treasury to produce a periodic report on current and future well-being every four years (Institute of Public Administration New Zealand, 2019[36]).
- The Treasury has also adopted a well-being approach in its longer-term statutory reporting. In the 2018 Investment Statement, which analyses the government balance sheet and its management, the Living Standards Framework provided an organising framework. The Statement, required at least every four years, also includes a chapter on how to broaden it to include natural capital considerations.
- The Community for Policy Research was launched in November 2017 as a multidisciplinary network of external researchers whose work could be used to improve the advice of Treasury. To steer this, Treasury has published a short booklet listing its key research interests, clarifying the broad areas and research questions of greatest relevance to addressing priority gaps in the Treasury evidence base (New Zealand Treasury, 2017[68]).

Despite the different origins and context of the Living Standards Framework, New Zealand often faces policy implementation challenges similar to those in other countries. One challenge is simple awareness: communicating clearly what well-being is, how it can be measured, and why it matters for policy. The tools typically used to generate policy advice, and the theoretical and applied analysis on which these rest, are rarely centred on well-being, and often struggle consider economic, environmental and social impacts in an integrated way – even if recent work is beginning to turn this around. Well-being policy makes new demands on the evidence base, and the research response will take time to build. Much of the evidence will be generated outside of government departments, and perhaps even New Zealand itself, so evidence demands must be stated clearly, and communicated effectively. Signalling a long-term commitment to using well-being evidence will enable actors within the evidence pipeline to invest the long-term resources needed to meet these demands.

Further challenges include joining up across sectors, adopting a multidimensional approach to policy impact appraisal and evaluation that can forge collaboration across departmental silos, surfacing trade-offs and capitalising on synergies. The robustness of policy analysis tools must be maintained throughout, with good quality checks in place. Tackling these issues will require clear direction and leadership, continuous learning, and culture change, not only within government and the civil service, but also the wider community that shapes policy. These challenges, discussed in more detail below, should inform the next steps

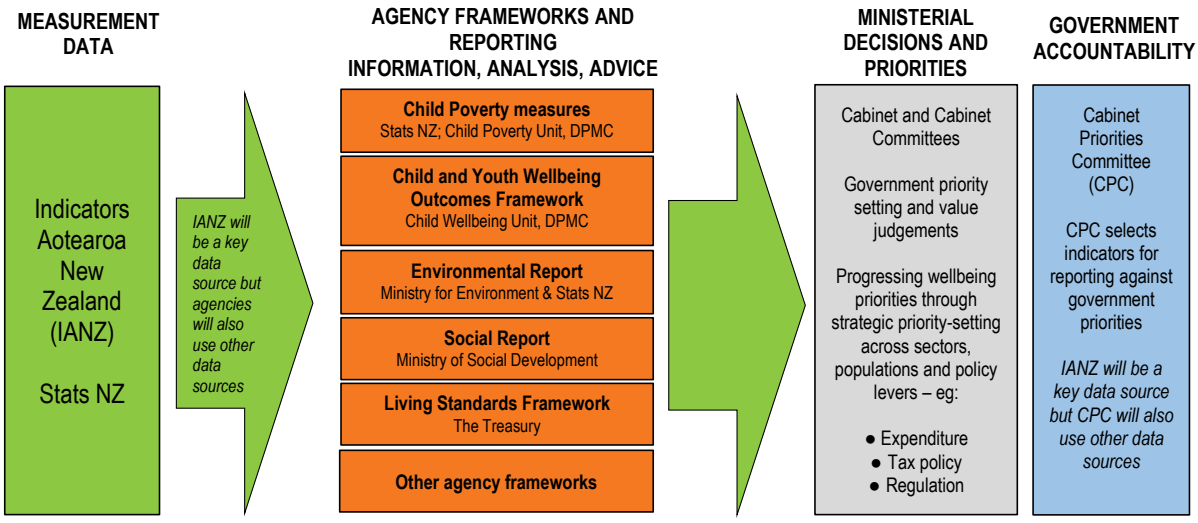
planned by the New Zealand Government, as well as the review and update of the Living Standards Framework and its Dashboard of measures, currently planned for 2021 (New Zealand Treasury, 2018[3]).

Building a joined-up well-being information system that can meet new policy needs

Good quality, timely, and comprehensive data play a crucial role in policy advice

The 2018 Living Standards Framework Dashboard represents an important step in consolidating well-being evidence for New Zealand. It draws data from several different sources including Stats NZ, the OECD, the Ministries of Health, Education, Environment and Justice. Despite some important data gaps (discussed above), a long tradition of measuring well-being in New Zealand means that The Treasury has a range of quality data to draw from (Box 1.1). The release of Indicators Aotearoa New Zealand by Stats NZ in mid-2019 will provide a key data source, feeding into the Living Standards Framework Dashboard and several other well-being reporting initiatives across government (Figure 1.13).

Figure 1.13. The anticipated Indicators Aotearoa New Zealand data pipeline



Source: New Zealand Treasury (2019), Presentation by Gabriel Makhlouf to the OECD, 22 January.

The steps being taken to implement a well-being approach across government (Box 1.2) place new demands on the statistical system, which is already under some strain (Stats NZ, 2018[69]). To build up the necessary well-being evidence base, data should be collected frequently, and reported in a timely manner. Doing so will provide policy makers with more rapid and regular information, as well as a richer source of material for the necessary research on critical policy levers. However, these demands are at odds with current statistical practice both in New Zealand and throughout the OECD, where well-being measures are often collected and reported with very low frequency and timeliness (Fleischer, Smith and Viac, 2016[47]). In New Zealand, the General Social Survey, a major source of well-being data, is conducted every two years. The Census, conducted every five years, is another important source. Time use data, critical for the Living Standards Framework's time use domain, and for analysing unpaid work, leisure, social

connectedness, cultural participation, health behaviours, etc. was last collected by Stats NZ in 2009/10, 11 years after the preceding data collection in 1998/99. In addition, around one-third of the proposed indicators for the Indicators Aotearoa New Zealand dashboard are currently still to be developed (Stats NZ, 2019[63]) – meaning that investment in new data sources and methods will be needed.

With any comprehensive well-being indicator set that aims to inform policy making, the cost burden of filling data gaps, providing more frequent and more granular data collections and more timely reporting must be considered. To help manage these pressures, it may be necessary for the government to identify a narrower set of top priority indicators (see below). Indeed, Stats NZ have stated their intention to select a core set of 20-25 indicators to provide a broad overview of progress, accompanied by 80-90 second tier measures in Indicators Aotearoa New Zealand (Stats NZ, 2018[70]). Some Stats NZ survey instruments, such as the Household Labour Force Survey and the Quarterly Employment Survey, are already fielded quarterly. The General Social Survey could be conducted on an annual, rather than two-yearly, cycle, and could incorporate some items currently only captured in the five-yearly Census. Additionally, Stats NZ should consider the use of administrative data and other Big Data sources. Some of these are already being explored in the context of the Census Transformation Programme (Stats NZ, 2019[71]).

A more joined-up approach to defining well-being is needed in government

The Living Standards Framework is a tool owned by the Treasury, rather than the wider New Zealand Government. Since it is neither a development strategy, nor a performance monitoring framework, it does not set specific goals or targets that unite government departments around a set of common objectives - an approach adopted in Scotland and Slovenia, for example, to galvanise government action and cooperation (Exton and Shinwell, 2018[38]; Durand and Exton, 2019[65]). The decentralised approach to well-being reporting in New Zealand, with several different frameworks and indicator sets operating in parallel, enables government ministries and agencies to tailor the breadth and depth of their analysis to the needs, audiences and policy problems at hand. Yet one important downside of this decentralised system is that there is no definitive account of New Zealand's well-being – nor one consistent framework under which the different approaches are nested. For example, the "four well-beings" referred to in the Local Government (Community Well-being) Amendment Bill (Box 1.2, above) are quite different to the Treasury's Living Standards Framework. The lack of coordination risks creating confusion among both stakeholders and the research community tasked with generating the evidence base, and will frustrate attempts to map indicators at the different levels of policy-making (Burton, Morrissey and Ng, 2018[72]). It also means that creating a more collaborative "whole-of-government" approach, another key objective for the current government, may become harder to realise.

Chief Executives across the public service should consider adopting a common conceptual framing of well-being – such as the Living Standards Framework - as an organising construct within which agency well-being frameworks can be nested. Greater clarity should also be provided on the respective roles of and connections between the approaches used in different parts of the public sector. This does not mean that all departments and agencies should adopt the same indicators as the Living Standards Framework Dashboard, since greater or less granularity may be required in specific domains. Nor would it necessarily mean covering all domains of the framework, since some may be of lesser relevance for a specific government agency. But it would mean that all indicator sets would be articulated in relation to one central framework, and stakeholders could easily understand how they

interrelate. Although the Treasury did consult with other ministries, and the current approach builds on more than a decade of well-being work in New Zealand, the speed with which the current Living Standards Framework and Dashboard have been developed left little room to seek cross-government consensus. This goal should be pursued in the future, not least because the 2019 Wellbeing Budget already required all departments to use the Living Standards Framework in preparing their budget spending bids.

A small set of priority indicators could help raise awareness and focus attention

Comprehensive dashboards produced by independent public bodies, such as national statistical offices, are essential for general well-being monitoring. They also play an important role in ensuring that well-being is not defined as (or associated with) a narrow set of political priorities. Nevertheless, to capture the attention of senior leaders, politicians, media and the wider public, a smaller dashboard can be a valuable addition to larger diagnostic data sets (Jeffrey and Michaelson, 2015[73]; Kanbur, Patel and Stiglitz, 2018[74]; France Stratégie, n.d.[75]; Scott and Boyd, 2017[76]). This approach has been followed in a number of OECD countries. For example, implementation of the new budget laws in France and Italy resulted in 10 and 12 indicators respectively, while Sweden's well-being dashboard, also presented to inform the budget process, contains 15.

The process for selecting small headline sets of indicators has varied across countries: in France, the 10 New Wealth Indicators were the product of public consultation, with final decisions then taken by the government; in Italy, decisions on 12 budget indicators were made by an expert committee established by the Prime Minister; in Sweden, Statistics Sweden developed the framework, in consultation with government offices (Exton and Shinwell, 2018[38]). In the United Kingdom, the national statistical office has released a new quarterly Personal and Economic Well-being Bulletin, which features 12 indicators (ONS, 2019[77]). The Welsh Government is currently undertaking a public consultation on a set of around 12 National Milestones, which will incorporate specific target levels (Welsh Government, 2018[78]), to complement its 46 measures of well-being (Table 1.1, above). One critical input in this selection should be key findings from the larger-scale well-being monitoring dashboards, which in New Zealand would be the Indicators Aotearoa New Zealand data set and the current Living Standards Framework Dashboard. Without these, priority selection will have less of an empirical basis, and be less transparent (Fleischer, Frieling and Exton, forthcoming[6]).

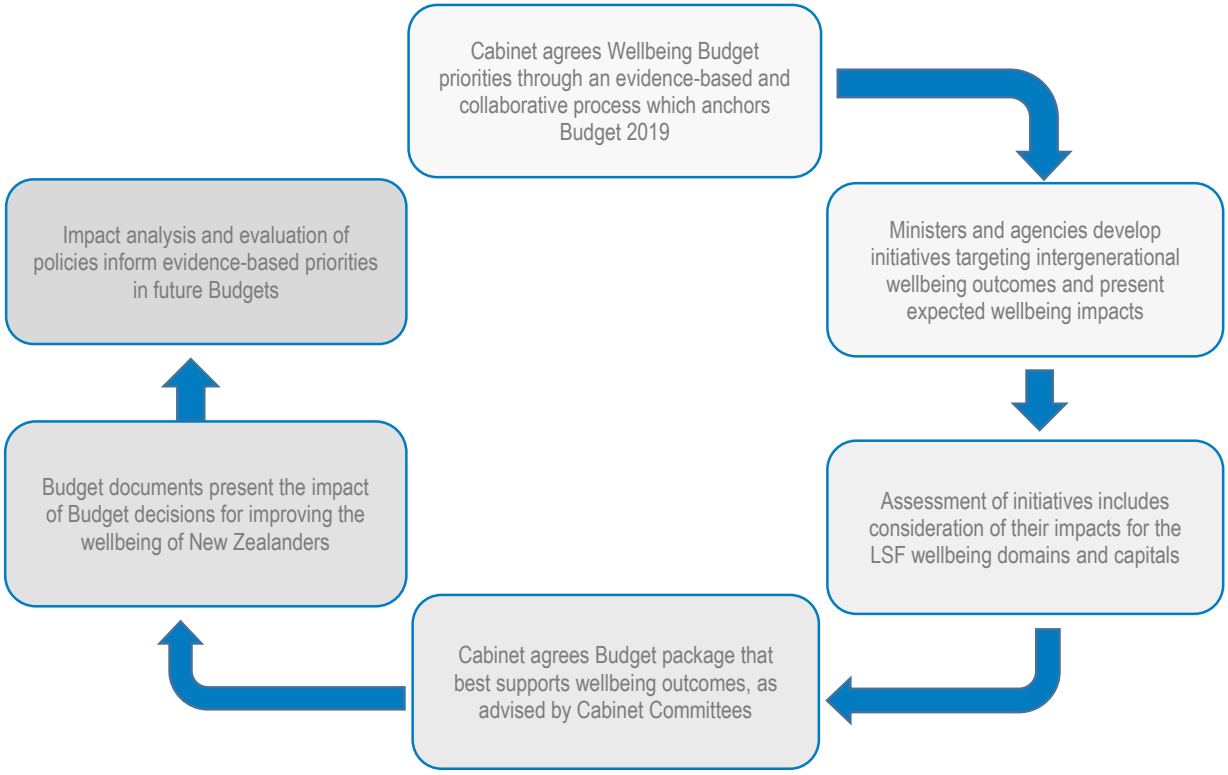
The well-being objective-setting that the New Zealand Government would be required to undertake in the currently proposed amendments to the Public Finance Act (Institute of Public Administration New Zealand, 2019[36]) could be accompanied by a set of priority headline indicators. These could in turn provide the basis of the annual reporting required under the proposed amendments. In the more immediate future, the five priorities set out for the 2019 Wellbeing Budget (New Zealand Government, 2018[35]) could provide one stimulus for a smaller set of indicators – though (particularly in light of the current frequency and timeliness of well-being data) these should be adopted for a longer time horizon, rather than an annual budget cycle. For example, the targets required by the new Child Poverty Reduction Act (New Zealand Parliament, 2018[79]), which must span both medium (three-year) and longer term (ten-year) timeframes, will provide clear focus and accountability over what should be realistic time horizons for policy-related changes to occur.

Adapting the policy toolkit to put well-being at the centre

The budget process is a key mechanism to operationalise a well-being approach

New Zealand's 2019 Budget aims to use well-being evidence at every stage of the cycle, from setting priorities to evaluating results (Figure 1.14). Since the budget process engages all government departments, it offers a lever for capacity-building among analysts across the public service, and a way to forge more collaborative approaches and evidence-sharing. It also has the potential to generate savings through reconciling misaligned bids; consolidating those bids that should produce strong synergies in terms of outcomes; and, by looking across a number of bids that all impact on the same well-being outcome(s), choosing the one(s) associated with the strongest evidence and greatest impacts. The impact of greater alignment can be substantial. For example, the Treasury has assessed that, even under highly restrictive assumptions, better aligning policy could be fiscally equivalent over 40 years to raising the age of eligibility for the state pension by two years (Burton et al., 2016[80]).

Figure 1.14. New Zealand's Wellbeing Budget process



Source: New Zealand Government (2018), *Budget Policy Statement, Budget 2019,* www.budget.govt.nz/budget/2019/fiscal-strategy/bps2019.htm.

To support the 2019 Budget, the Treasury required all initiatives seeking new funding to include a well-being analysis and intervention logic. First, the template for funding proposals asked departments to quantify how their initiative is expected to impact on twelve current well-being domains (New Zealand Treasury, 2018[62]). Not every domain of current well-being was assessed for every initiative: departments were instead asked to outline one primary and up to three secondary well-being domains impacted. The template also

required a description of who is affected; the magnitude of the impact; the timeframes in which the impact will be realised; and a description of the evidence base and quality. In addition, initiatives were assessed on whether they were expected to "increase", "decrease" or "maintain" each of the four capital stocks. Finally, departments were also asked to consider whether initiatives help to build resilience or respond to risks to well-being.

Guidance to agencies submitting bids indicated that initiatives that align with one or more of the five Budget 2019 priorities, and show cross-agency and cross-portfolio collaboration, would be prioritised. As is commonly found in budgets across the OECD, a majority share of New Zealand's budget is reserved for baseline spending, which limits the discretionary funds available for new initiatives. New spending announced in the 2019 Wellbeing Budget constitutes only around 4% of core Crown expenditure. One of the Treasury's future challenges will therefore be to develop approaches for reviewing how effectively the baseline spending of government agencies supports New Zealanders' well-being. As a first step in the 2019 Budget, each Minister was asked to undertake a review of spending and identify at least 1% of baseline spending that is not aligned with the government's aims, or is of lowest priority.

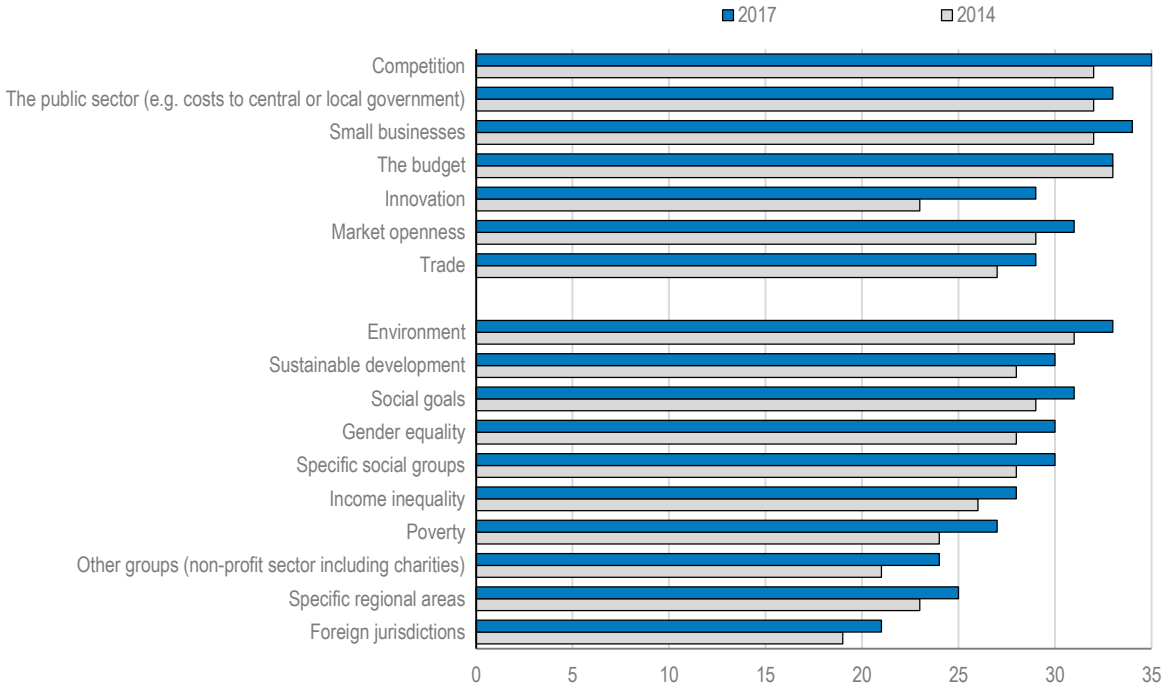
Existing policy tools already account for several aspects of people's well-being, albeit unevenly

While France, Italy and Sweden have each recently introduced new dashboards of well-being indicators in their budget processes, the approach taken in New Zealand is a much more comprehensive and integrated one than seen elsewhere to date. Nevertheless, several countries have started to address the question of how to go beyond GDP when performing ex ante policy appraisal and ex post policy evaluation. For example, international practice on regulatory impact assessments has seen a gradual shift towards considering the wider benefits and costs of regulation (Figure 1.15). Nevertheless, economic impacts, such as on competition and small businesses, impacts on the environment, and on the public sector and budget remain the most frequently assessed types of impacts. The analysis of social impacts, such as income inequality and poverty, is expanding but not as developed (OECD, 2018[81]; Deighton-Smith, Erbacci and Kauffmann, 2016[82]).

In New Zealand, regulatory impact assessments are a formal Cabinet requirement for regulatory changes (OECD, 2016[83]). The Treasury provides guidance and quality assurance of this process, including periodically commissioning independent reviews (OECD, 2015[84]). New Zealand's response to the OECD Indicators of Regulatory Policy and Governance Survey 2017 indicated that each of the impacts in Figure 1.15 are assessed for some primary laws and subordinate regulations, but none are required to be assessed for all regulations. The templates provided for the purposes of impact assessment (New Zealand Treasury, 2017[85]) are very flexible: they require a statement about who is affected and how, as well as a summary of costs and benefits, and a description of stakeholder views, but there are no mandatory requirements to consider impacts for specific groups of citizens (e.g. by gender or ethnicity), or to assess equity concerns (e.g. income inequality) or specific outcomes (e.g. environmental or health impacts). The accompanying guidance (New Zealand Treasury, 2017[86]) notes that relevant impacts can include economic, fiscal, compliance, social, environmental and cultural impacts, but no further advice is provided on what social, environmental and cultural impacts are or how they might be considered.

Figure 1.15. Regulatory impact assessments in OECD countries are increasingly considering a wider range of impacts

Number of OECD jurisdictions considering impacts for at least some regulations



Note: Data is based on responses to the OECD Indicators of Regulatory Policy and Governance Surveys 2014 and 2017, from 34 OECD member countries and the European Union.
Source: Adapted from OECD (2018), *Regulatory Policy Outlook 2018,* OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264303072-en.

StatLink https://doi.org/10.1787/888933949328

Cost-benefit analysis, which is often part of regulatory impact assessments, is also often adapted to account for the non-market value of goods and services provided, or depleted, by policy interventions. Standard techniques include stated preference methods (i.e. asking people about their willingness to pay to receive a benefit, or avoid a cost) and revealed preference methods (i.e. observing people's behaviour in order to infer the value they place on a given good). Recently, a third method, based on subjective well-being (typically, life satisfaction) has been developed in an effort to capture well-being impacts more broadly (Fujiwara and Campbell, 2011[87]; OECD, 2013[88]; O'Donnell et al., 2014[89]; Layard, 2016[90]; Wright, Peasgood and MacLennan, 2017[91]; Clark et al., 2018[92]; OECD, 2018[93]).[9] Values generated through subjective well-being methods have been included in the New Zealand Treasury's CBAx Impacts Database (Box 1.3). The United Kingdom Treasury's *Green Book on Appraisal and Evaluation in Central Government* (HM Treasury, 2018[94]) also offers a detailed overview of methods to assess and evaluate non-market costs and benefits, including techniques based on subjective well-being.

Box 1.3. CBAx: A Treasury tool for improving the consistency of cost-benefit analysis

One barrier to the harmonised use of any type of cost-benefit analysis is that different teams of analysts may base their assessments on different sets of assumptions. To support analysts working across government departments, the New Zealand Treasury has developed a spreadsheet tool called CBAx. A key goal is to support consistency and transparency of methods: it encourages users to spell out clearly their assumptions, such as those made about effect sizes, as well as the valuations applied to different goods and services, so that these can be compared across different analyses. Through adoption of a 50-year time horizon, CBAx also aims to encourage long-term thinking.

For the 2019 Budget, the CBAx model was updated to enable impacts to be linked to well-being domains. It was made available to departments as a supporting tool, but its use was strictly optional. The CBAx tool can accommodate a variety of methods for generating monetized values, including values inputted by departments themselves. There are currently over 200 values for impacts provided by the Treasury in the CBAx Impacts Database. In 2017, the Treasury purchased a license to use around 60 shadow values estimated using the subjective well-being method, as compiled by the Australian Social Value Bank, and adjusted using New Zealand income levels. Other monetised values in the Impacts Database range from the cost of a general practitioner visit, to the value of additional educational qualifications (derived from marginal gains in earnings), health gains assessed through additional quality adjusted life years (QALYs), and the social cost of fatal transport accidents based on the value of a statistical life.

A recent evaluation (New Zealand Institute of Economic Research, 2018[95]) found that agencies have made significant improvements in the quality of their analysis of budget initiatives since the CBAx tool was introduced. However, this evaluation also highlighted that the additional burden created for agencies does not pay off in all cases, particularly where the supporting evidence used is of variable quality, for smaller initiatives (in terms of cost pressures), and for initiatives liable to political determination (where greater transparency from Treasury about budget priorities was recommended). Nonetheless, one important advantage of CBAx was in prompting greater clarity around the intervention logic – something that can enhance cost-benefit analysis, whether or not the logic is presented in monetised or quantified form. Indeed, the New Zealand Institute of Economic Research suggested re-framing CBAx as an intervention logic model, to encourage agencies to focus on the quality of their inputs, rather than on achieving a positive net present value or high overall returns on investment. While CBAx continues to be a cost-benefit analysis tool, updated Treasury guidance now puts more emphasis on the identification and quantification of impacts - i.e. the quality of inputs - and less emphasis on the monetisation of impacts and summary measures.

Source: New Zealand Treasury (2018d), CBAx Tool User Guidance
https://treasury.govt.nz/publications/guide/cbax-tool-user-guidance

A key advantage of these subjective well-being techniques is that they rely on people's lived experiences, rather than on their reactions to hypothetical future scenarios (as in the case for willingness to pay), or the wide array of factors that affect behaviour beyond rational choice (as in the case of revealed preferences). The potential for strategic responding is also reduced. Subjective well-being survey questions are generally cost- and time-effective to administer to large samples (Fujiwara and Campbell, 2011[87]). Nevertheless, challenges remain in terms of data availability, sensitivity, and estimating the

duration of impacts (OECD, 2013[88]; OECD, 2018[93]). Subjective well-being is only one element of the Living Standards Framework and the more policy focuses on a single metric, the more issues of measurement error and noise begin to matter. Due, in part, to the challenges of accurately estimating the relationship between income and subjective well-being (see OECD, 2013, 2018d), the monetary estimates obtained from the subjective well-being valuation method can sometimes seem implausibly large. Thus, while subjective well-being techniques can provide a valuable complement to other valuation methods (which also suffer from important biases), the methodology is still developing, and caution is needed in making direct comparisons of impact values derived from different valuation approaches.

One of the difficulties associated with all methods for monetising non-market impacts is the lack of transparency for non-technical audiences who have a critical stake in policy decisions. Reducing non-market goods to a list of monetary values can also damage public acceptability of the analysis (Corry, 2018). Cost-effectiveness analysis (describing costs incurred per unit improvement in subjective well-being) is thus sometimes viewed as a more palatable alternative (Layard, 2016[90]; O'Donnell et al., 2014[89]). Translating (decomposing) monetary values back into physical measures, whether for describing the number of people likely to be helped, or the ways in which their lives will change, remain important for the wider communication of policy decisions – including with Ministers.

Greater guidance and oversight to ensure truly multidimensional analysis

In broadening and deepening consideration of well-being impacts across its policy advice, the Treasury will need to carefully manage the additional burden this creates. A critical area in which to develop consistent guidance and practice will be how to select which well-being domains (and capitals) should be assessed under which circumstances (Deighton-Smith, Erbacci and Kauffmann, 2016[82]; Durand and Exton, 2019[65]). On the one hand, fully capturing trade-offs and synergies implies assessing impacts across all well-being domains, over all time frames, for all policy initiatives, even if impacts may be marginal (or nil) in some cases. Indeed, this whole-of-government perspective is a key distinguishing feature of a well-being approach, in contrast to "silos" of independent social, economic and environmental impact assessment (Whitby, Seaford and Berry, 2014[96]). On the other hand, this could push analysts beyond their areas of expertise, require very broad (and potentially fruitless) evidence searches, and create some considerable demands on time, training, and capacity-building.

The Treasury approach to the 2019 Budget combined precision with flexibility. Guidance made clear that the five budget priorities, and the degree of collaboration across departments, would play an important role in determining which proposals were retained. At the same time, the budget template offered a high degree of discretion for departments to describe impacts as they understood them, and for only a limited number of well-being domains - i.e. for one primary and up to two secondary domains (though they did have the option to cover more domains if considered relevant). Yet if "impact" and "relevance" are interpreted too narrowly (e.g. if an employment initiative is only assessed for its impact on jobs and earnings, rather than also on time use, health, social connections, income and consumption, knowledge and skills, etc.) then this is little different from existing practice: spill-overs and synergies will be at best only partially addressed, and opportunities for strategic alignment would be lost.

Treasury should review the 2019 Budget experiences, including how agencies went about selecting well-being domains for their assessments. This should be done with a view to

providing stronger methodological guidance on both the development and assessment of bids. Existing mechanisms of quality assurance and oversight for policy advice more generally could also be adapted to embed a well-being approach. There is already a process in place for quarterly assessments of the quality of Treasury policy advice, where papers are selected on a random basis for review by a panel of six experienced Treasury staff, an external reviewer from the New Zealand Institute of Economic Research and a staffer from a Finance Minister's office (New Zealand Treasury, 2018[97]). This process is conducted under the guidance set out by the Department of the Prime Minister and Cabinet's "policy project" (Department of the Prime Minister and Cabinet, 2019[98]; Washington and Mintrom, 2018[99]). Treasury is also responsible for the quality assurance of regulatory impact assessments across government. These cross-government processes could be enhanced through the Living Standards Framework. A regulatory scrutiny body would offer another method of oversight.[10]

Public procurement is a further policy area that governments are increasingly leveraging to achieve social, economic and environmental benefits. The OECD recently developed a framework for understanding and measuring public procurement's contribution to the economy and national well-being more broadly which was tested in Finland and Chile (OECD, 2019[100]). In a review of Germany's public procurement system the OECD found that the current challenges facing Germany, such as an ageing society with increasingly costly healthcare needs, air quality in cities and rising rent prices, map onto key well-being challenges relating to health status, air quality and housing affordability (OECD, 2019[101]). However an empirical assessment of public procurement's impact on well-being requires reliable sources of data and an appropriate methodology that are often lacking (OECD, 2019[101]).

The New Zealand Government spends approximately NZD 41 billion each year buying goods and services from third-party suppliers and providers (Office of the Minister for Economic Development, 2018[102]). The government has agreed in principle to four priority outcomes that government agencies will collectively leverage through this purchasing power: increasing New Zealand businesses' access to government procurement; construction sector skills, training and employment opportunities; employment standards and improving conditions for workers; and supporting the transition to a net zero emissions economy, and a significant reduction in waste by 2020 (New Zealand Government Procurement, 2018[103]). The Ministry of Business, Innovation and Employment is developing a monitoring and reporting framework to track agency adoption and outcomes achieved. These outcomes align with the government's objectives of a sustainable and inclusive economy, and resonate with the priorities set for the 2019 Well-being Budget.

A joint effort to develop the evidence base and map the intervention logic between policy levers and well-being outcomes

Linking outcomes back to policy systems

Adequately evidencing how public policy affects people's well-being is central to the success of the government's proposed amendments to the Public Finance Act, which will require an assessment of how spending contributes to well-being objectives. Yet well-being measures in themselves say nothing about the policy settings necessary to improve outcomes: they provide the diagnosis but without a prescription. Making well-being an operational tool therefore requires systematic evidence about the links between policy levers and well-being outcomes, mapped out for different levels of government (Burton, Morrissey and Ng, 2018[72]). This is a major research agenda – and one that might benefit

from initially being focused around a small set of priorities, such as those set out for the 2019 Budget. The *OECD Inclusive Growth Framework for Policy Action* (OECD, 2018[104]) is one example of efforts to trace the intervention logic from the characteristics of policy systems and the wider economy, to the ultimate well-being outcomes that those systems help to produce.

Identifying intermediate outcomes, which respond fairly rapidly to changes in policy systems but can be linked empirically to final well-being outcomes, may prove pivotal. New Zealand's recent experience with interagency performance targets, the Better Public Services Results Programme, implemented in 2012-17, generally focused on this mid-layer of indicators. An assessment of the programme concluded that of the ten targets selected, the most successful proved to be intermediate outcomes that would both respond to policy intervention over a reasonably short period - making it possible to galvanise cross-sector teams through the momentum built - but are also related to real-life results of value to people (Scott and Boyd, 2017[76]). Nevertheless, there are myriad intermediate goals that a government could focus on, all of which might gain popular support from some constituencies. It is therefore critical to have some way of assessing which should be tackled first, and which will deliver the highest returns. A comprehensive approach might therefore embed such a target-setting programme into a wider exercise that first identifies the priority domains of well-being where the greatest gains can be made (e.g. based on international evidence, trends over time, inequalities, expert advisors etc.), and then where the rationale for government intervention is strongest. The intermediate outcomes could then be defined based on the evidence about key drivers of those high-level outcomes, and on how those drivers interact with policy systems.

Existing networks for evidence-informed policy should be encouraged to adopt a multidimensional well-being approach

Well-being approaches are closely related to wider initiatives to bring evidence into policy, and thus suffer the same types of barriers (Acquah, 2018[105]; OECD (forthcoming), n.d.[106]). While the Treasury, together with other government departments, can contribute to knowledge generation through their work, they also rely on knowledge generated by external researchers such as those working in universities, think tanks, etc. (New Zealand Treasury, 2017[68]). A pivot towards well-being within government therefore needs to be supported, to a large extent, by a corresponding pivot towards well-being in the research community on which much government analysis relies. In particular, as noted above, more evidence is needed about how specific policy levers impact right across the spectrum of well-being outcomes – rather than more traditional research focused on the drivers of just one outcome, or one dimension of well-being.

Steps towards this type of whole-of-government analysis are being taken. For example, OECD work on the wider benefits of learning has adopted a well-being approach to consider outcomes in adulthood across a range of domains, from job performance to life satisfaction, job satisfaction and health risks (OECD, 2015[107]). A new study on the well-being impacts of digitalisation, *How's Life? in the Digital Age*, considers the opportunities and risks of digital technology across the 11 dimensions of the OECD's current well-being framework (OECD, 2019[108]). And forthcoming OECD work on both climate change mitigation and public procurement rests on the OECD well-being framework for considering the impacts of policies beyond GDP (OECD, forthcoming[109]; OECD, 2019[101]). In the New Zealand context, policy approaches to migration have also been considered through a multidimensional well-being lens (Fry and Wilson, 2018[110]); Chapter 2).

Internationally, the absence of clear responsibility in departments for how officials should engage with research evidence, and the quality of evidence required to inform effective policy making, are some of the largest obstacles to better use of evidence in policy (Sasse and Haddon, 2018[111]). In addition, there is often little coordination across government in how evidence is incorporated in the policy process. To address these challenges, the United Kingdom's What Works Centres act as evidence hubs and knowledge brokers between research and policy communities. An important finding by the What Works network is that creating online resources is not enough. Knowledge mobilisation is a social process and opportunities need to be actively created through sustained engagement with individuals and organisations, to help bring relevant research to the right people at the right time (What Works Network, 2018[112]).

New Zealand's existing policy evidence infrastructure could be encouraged to adopt more of a multidimensional well-being approach. For example, New Zealand's Social Investment Agency has been building on a holistic model to assess whether social policy interventions are making a difference to people's well-being (SIA, 2018[52]) – expanding its focus beyond its original goal of increasing fiscal returns from reducing long-term social benefit dependence (Acquah, 2018[105]). The Productivity Commission could similarly enhance its existing focus on maximising well-being through a multidimensional lens. Starting in 2009, New Zealand government agencies have appointed Chief Science Advisors and Chief Economists to help bring external capacity for evidence use into the heart of government. Sasse and Haddon (2018[111]) suggest that such Chief Advisors have an important role to play in generating more cross-government coordination in incorporating evidence into policy-making. For example, Chief Advisors can jointly identify priority research questions and work with academia to address these, or they can jointly review government's use of tools for bringing insights from diverse academic disciplines into policy-making. Doing so could be supported by Treasury's Community for Policy Research (New Zealand Treasury, 2017[68]).

Making a long-term commitment and embedding the approach in the machinery of government

At its heart, the move to adopt a well-being approach should simply be about supporting good policy advice: providing a clear structure under which it is easier to spell out the costs and benefits of policy action; quantify the trade-offs and synergies at work; and identify the population groups that might be differentially affected by different policy options. This needs to be supported by a strong evidence base, which in turn relies on well-being indicators collected with sufficient frequency, timeliness and granularity to meet the needs of policy makers.

Budgeting and regulatory impact assessments offer powerful levers to implement broader well-being frameworks. Well-being approaches have also been anchored in legislation to secure long-term commitment, as well as to garner cross-party political support. For example, laws such as the Scottish Community Empowerment Act 2015, the French 2015-411 law and the Italian Budget Law which entered into force in 2016, all place a duty on government to regularly report on a set of well-being indicators. In Wales, the Well-being of Future Generations Act 2015 (Welsh Government, 2015) requires all public bodies to place seven well-being goals at the centre of their decision-making. However, in all of these international examples, the intent has been to encourage policy-makers to consider a broader set of outcomes, rather than to require the use of a specific indicator set – thus allowing for priorities to shift as circumstances change. For example, Scottish Ministers

have a duty to consult on, develop and publish a new set of National Outcomes for Scotland, and to review them at least every five years.

In New Zealand, the government is currently consulting on possible mechanisms to embed well-being in the Public Finance Act 1989 (New Zealand Treasury, 2018[113]). Currently proposed revisions would introduce requirements for the government of the day to set well-being objectives and report on these annually, while the Treasury would be required to report on current and future well-being every four years (Institute of Public Administration New Zealand, 2019[36]).

One challenge in using legislative processes is to ensure that they are backed up with real change in civil service and Parliamentary practice – which means focusing on the infrastructure and evidence base that supports implementation, as well as the capability-building needed to make it a reality. Making legislation flexible enough to accommodate new priorities, while at the same time purpose-driven enough to ensure that it has teeth, can be difficult. National accountability mechanisms can support this. For example, in Wales, implementation of the Future Generations Act is overseen by both the Auditor General and the Future Generations Commissioner, who monitors and reports the extent to which the different public bodies are setting and reaching their well-being objectives, and reviewing them accordingly. These structures were put in place partly in reaction to the closure of the wider United Kingdom Sustainable Development Commission in 2011; solidifying these monitoring roles in legislation was seen as a way to ensure their continued survival through changes of government (Wallace, 2019[114]).

In New Zealand, several other Commissioner roles already exist, whose responsibilities often have a strong bearing on well-being (e.g. the Parliamentary Commissioner for the Environment, Children's Commissioner, Health and Disability Commissioner, Chief Human Rights Commissioner, Race Relations Commissioner and Equal Employment Opportunities Commissioner). A well-being Commissioner could be asked to adopt a cross-government coordination responsibility that would mirror the greater coordination expected across departments, as targeted by proposed revisions to the State Sector Act. The changes currently being explored as part of a fundamental review of the New Zealand Civil Service (State Services Commission, 2019[115]) should include critical capacity issues for delivering a well-being approach, including the need to develop expertise and evidence.

New Zealand is in a strong position to maintain momentum on well-being, but this will require continued investments, over time, in all four of the critical pillars needed to uphold it: the data and evidence base; the civil service capacity and policy tools; the political will and leadership; and the support of wider civil society. Any form of public sector innovation will also come with risks and resource costs that will need to be managed and mitigated. The New Zealand Treasury has positioned the Living Standards Framework as a tool developed by the Treasury and for the Treasury, rather than the whole of the public service. This is in keeping with the speed and manner in which it has developed over the past two years. Nevertheless, other government departments have been required to use the Living Standards Framework when preparing budget bids, and the consequences of Treasury tools are usually felt well beyond the Treasury. Developing a shared ownership would therefore be a valuable goal for its future development. This will require clear leadership and strong communication around the framework from the Treasury. In addition, although different government departments each have their own needs and audiences in terms of their well-being analysis and reporting, providing a more cross-government view on the broad framework and definition of well-being will be valuable for communicating with and engaging external audiences.

FINDINGS [main findings shown in bold text]	RECOMMENDATIONS [key recommendations shown in bold text]
Opportunities to improve well-being in New Zealand	
New Zealand has high levels of well-being on average but less so for some groups.	Prioritise improving well-being for Māori, Pasifika, sole parents and children, through better targeted income, education, health and housing policies.
New Zealand faces poor and worsening housing affordability, high economic vulnerability, rising labour market insecurity and household debt, and growing income and wealth gaps. Mental health, health inequalities and outcomes for children and youth are key concerns. Natural capital is under threat: pollution from farming and population growth is reducing water quality, and water scarcity is a problem in some regions. Per capita greenhouse gas emissions are high.	The government should regularly report on progress towards achieving its well-being objectives (e.g. the 2019 Budget priorities) through an agreed set of indicators, as per the child poverty reduction targets and indicators and child well-being strategy.
Concepts and measures of well-being	
Treasury's 2018 Living Standards Framework reflects good practice internationally, in terms of concepts covered and the intergenerational focus. It has been adapted for the New Zealand context, but is not yet widely adopted across the public sector.	Ensure that future development of the Framework is done in partnership with departments, and resonates across the public sector and wider civil society. Achieve broad-based public and stakeholder support to embed the approach.
Treasury's Living Standards Framework Dashboard has some data gaps, including in some areas where New Zealand fares poorly. The data infrastructure and evidence base require further development.	**Strengthen measurement of natural capital, innovation, human capital, cultural identity and integration of indigenous perspectives, within the Dashboard or the Stats NZ Indicators Aotearoa New Zealand database.** **Ensure sufficient resources to collect key indicators on a regular basis and with appropriate granularity.** **Subjective well-being indicators should continue be used as a complement to, rather than a replacement for, objective data.**
At present, the Dashboard serves dual purposes - as a tool to monitor New Zealand's well-being, and as a more direct policy instrument. It is unclear how this role will change once Stats NZ's Indicators Aotearoa New Zealand database is published.	Clarify the relationship with Stats NZ's Indicators Aotearoa New Zealand database. Stakeholders and data users across government, business and civil society should know where to go for what information.
Applying well-being measures to policy	
Data collection for several aspects of people's well-being rely on survey vehicles that are fielded infrequently. This is at odds with the pressing need to build a better well-being evidence base.	Select a smaller number of headline indicators that are monitored with a higher frequency, and use them to structure communication with Parliament and the public. Invest in statistical capacity to fill data gaps and provide more frequent and granular information for policy makers.
The approach to monitoring well-being across the New Zealand government is strongly decentralised, with different departments developing their own approaches.	Chief executives across the public service should provide greater central direction, encouraging development of agency well-being approaches within a common conceptual well-being framework.
The optional CBAx spreadsheet tool provides a valuable way to structure a consistent approach to cost-benefit analysis. It includes monetised impact values derived using a range of methodologies.	Further develop the CBAx with input from other government departments, but keeping it optional. Assess the comparability of impact values derived from different valuation methods, including those based on subjective well-being.
Current guidance on regulatory impact assessment defines economic, fiscal and compliance costs, but lacks structured discussion of how to assess wider well-being costs and benefits of regulation.	Link guidance on regulatory impact analysis to the Living Standards Framework, as a structured way for departments to consider the costs and benefits of regulation. Strengthen oversight of well-being impact assessment by departments.
As in several other OECD countries, legislation is being considered to put the use of well-being evidence on a longer-term footing within government processes.	Combine legislation with strong leadership and capacity building to achieve real, durable change in policy practice. A dedicated function (e.g. an independent Commissioner) should have responsibilities for oversight, advice and guidance on well-being implementation.
Applying well-being to policy development remains at an early stage. Civil service implementation capacity needs strengthening.	**Review experiences from Budget 2019 and further develop the methodological guidance on the preparation and assessment of spending bids.** **Integrate well-being into other policy advice and tools, such as regulatory impact assessment, and evaluation.**
Evidence on linkages between policy levers and outcomes is not well developed. This will hinder governments' ability to set well-being objectives, as proposed under the Public Finance Act amendments.	Carry out research to identify intermediate outcomes that respond to policy changes and can be empirically linked to final well-being outcomes.

Notes

[1] The Treasury's Living Standards Framework draws on the OECD's *How's Life?* framework, but there are a number of differences in detail. In this paper, we refer to the *How's Life?* assessment (OECD, 2017[4]) unless otherwise indicated.

[2] This estimate is based on household survey data, which typically underestimate incomes at the top end of the distribution

[3] Ethnic comparisons are complicated as ethnic groups have different demographic profiles (e.g. in terms of age structures) and geographical dispersions. Moreover, responses to ethnicity questions in surveys and censuses are fluid and groups are not mutually exclusive (almost half of Māori also identified with the NZ/European ethnic group in the 2013 Census (Stats NZ, 2014[116]) (Balestra and Fleischer, 2018[119]). Some of New Zealand's notable regional differences in well-being outcomes, such as lower outcomes in Northland, intersect with ethnicity and access to public services, which further complicates the identification of driving factors (OECD, 2016[117]).

[4] Approximate per capita response rates for public consultations that involved reactions of the public to a published proposal: 27 people/million in the UK in 2012 (1800 responses, 66 million inhabitants), 72 people/million in France in 2015 (4802 responses, 67 million inhabitants), 57 people/million in Wales in 2016 (171 responses, 3 million inhabitants), 112 people/million in New Zealand in 2018 (560 responses, 5 million inhabitants). Consultations are not directly comparable in terms of consultation time or quality of responses received.

[5] Either a statistical office (e.g. in Australia, Austria, Israel, Korea, Finland), or a central government agency or Ministry (e.g. the German Federal Chancellery, the Australian Institute of Health and Welfare) usually leads this process, hosts and updates online databases, and publishes regular reports. "Lead body" refers to the main government entity responsible for developing and maintaining the well-being initiative, though several additional public bodies are often involved. In some cases, the centre of government kick-started processes by requesting the lead body to develop and publish indicators of well-being (e.g. in Israel, the United Kingdom and Italy).

[6] Six indicators appear more than once in the Dashboard (for example, discrimination appears in both the "civic engagement and governance" dimension and the "social capital" dimension). The total of 55 indicators refers to unique indicators only (i.e. discrimination is counted only once).

[7] The Millennium Ecosystem Assessment framework was used as a guide for the selection of natural capital indicators in the Dashboard, with the ecosystem services prioritised from a New Zealand perspective. Given New Zealand's unique biodiversity and hydroelectricity characteristics, there are good grounds for some differences in approach compared to other OECD countries.

[8] The planned Stats NZ IANZ data set is expected to cover a wide array of natural capital indicators, including both net and gross greenhouse gas emissions. However, many of the proposed IANZ natural capital measures are still in development, with no data currently available. This includes measures of waste flows in waterways and coastal marine environments, energy and material intensity, freshwater resources and water stress, and several aspects of biodiversity (Stats NZ, 2019[63]).

[9] Under this set of methods, data on subjective well-being are either used to estimate monetary values for non-market factors (based on equivalent income) or are used as the common currency itself, so that policy options are examined as the monetary cost per unit of improvement in subjective well-being (a form of cost-effectiveness analysis).

[10] For example, the EU Regulatory Scrutiny Board (RSB), established in 2015, reports directly to the European Commission President. Its role is to provide expert and arm's length central quality control of draft RIAs prepared by all EC Directorates General, as well as of major evaluations. RIAs must receive a positive opinion from the Board before regulatory proposals are allowed to proceed,

and the Board's assessments are made publicly available. This type of "arm's length" body also exists in the Czech Republic, Finland, Germany, the Netherlands, Norway, Sweden and the United Kingdom (OECD, 2018[118]).

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Chapter 2. Improving well-being through migration

New Zealand's immigration system aims to enhance well-being by promoting economic development, reuniting families and meeting humanitarian objectives. Immigration is high and residence admissions are focused on the high skilled to enhance economic outcomes. Empirical evidence suggests that immigration has had small positive effects on per capita incomes and has not adversely affected the wage or employment outcomes of the average NZ-born worker. However, temporary migration has had small negative impacts on new hires of some groups of people, notably social welfare beneficiaries not in the (16) most urbanised areas. Immigrants have high well-being outcomes on average but suffer an initial shortfall in employment and wages relative to the comparable NZ-born. New Zealand has refined the migration system over the years to attract those who are more likely to ease labour shortages and, should they apply for residence, have better earnings prospects. It has also deployed settlement and integration programmes to improve labour market and other outcomes that affect well-being. This chapter looks at further adjustments to the system to enhance its well-being benefits for both the NZ-born and immigrants.

New Zealand has experienced high emigration and immigration in recent decades. Emigration picked up in the late 1960s, when income levels in New Zealand slipped below those in Australia, and subsequently grew as New Zealand's economic performance deteriorated relative to that in Australia and other English-speaking countries. Partly in response, and in the context of a wider structural reform programme to improve economic performance, immigration policy was overhauled in the late 1980s and early 1990s to attract many more high-skilled immigrants. Immigration has been high since then, more than compensating for the population loss and brain drain through emigration in most years.

Immigration has had small positive effects on GDP per capita and has not adversely affected wage or employment opportunities of the average NZ-born worker (Brunow, Nijkamp and Poot, 2015[1]; Maré and Stillman, 2009[2]). Temporary migration has had some positive effects on the earnings of New Zealanders 25 years and older, but not of youth (Ministry of Business, Innovation and Employment, 2018[3]). Immigration has also had favourable effects on government finances overall, although not at the local government level. On the other hand, infrastructure and housing supply have not kept pace with the demand generated by high net migration, resulting in traffic congestion, water pollution and large increases in house prices, which has redistributed wealth to property owners from non-property owners, who tend to be less well off; this issue is discussed in the next chapter. More research is needed to understand fully the wider well-being impacts of immigration on the local population.

Immigrants in New Zealand tend to experience similar well-being outcomes to the native-born, whereas in most other OECD countries they have mostly worse outcomes. They and their children are better integrated into society on a variety of indicators than in most other countries (OECD and European Union, 2015[4]). Immigrants' children succeed well in education and the labour market. Immigrants selected for their skills earn substantially more than other immigrants, indicating that selection effectively identifies immigrants with the greatest potential for labour market integration.

As in other countries, immigrants initially tend to perform less well in the labour market than the comparable native-born but in most cases gradually close the gap. Enhancing their labour market outcomes would increase their well-being and that of others, through higher productivity and stronger government finances. New Zealand has refined immigrant selection over the years to favour those with better earnings prospects and has deployed settlement and integration programmes to improve labour market and other outcomes. Further adjustments to immigration policy and integration programmes would enhance migrant well-being with positive spill-overs to the well-being of the rest of the population.

After discussing migration trends and the main features of migration policy, this chapter reviews the effects of migration on per capita incomes, government budgets, and employment and wage outcomes of the NZ-born. The causes of the shortfall in immigrant labour market outcomes relative to those of the comparable NZ-born are addressed in the next section followed by a discussion of measures to improve immigrants' labour market outcomes and other aspects of well-being. These broadly fall into the categories of selecting immigrants with better labour-market prospects and improving integration of those already in New Zealand.

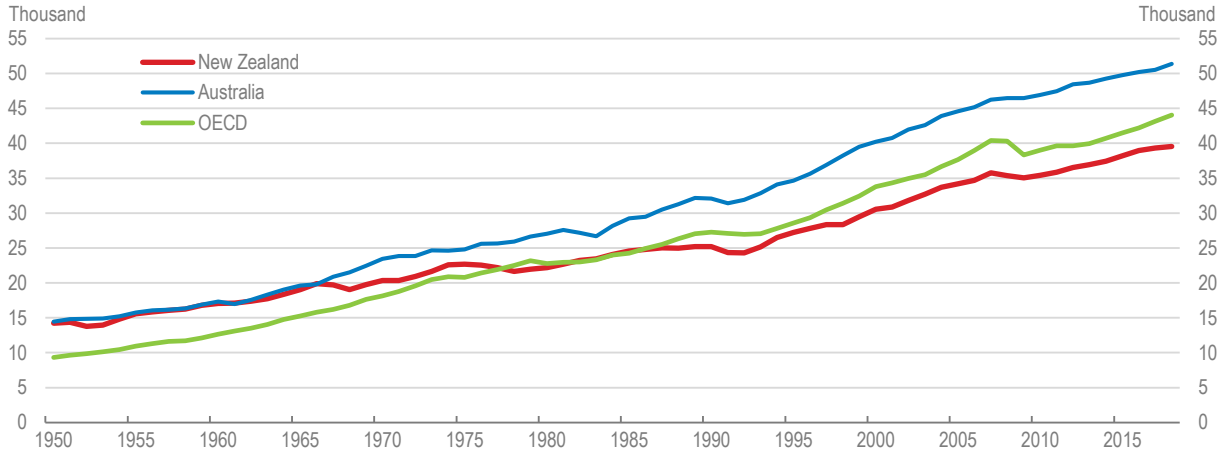
Emigration has been high in recent decades

Emigration increased in response to better economic opportunities abroad

Emigration increased significantly from the late 1960s, when income levels in New Zealand started to fall below those in Australia, and soared in the 1970s and 1980s, when the income gap grew markedly (Figure 2.1 and Figure 2.2). Emigration to Australia, with which New Zealand has an agreement (1973 Trans-Tasman Travel Agreement (TTTA)) that allows New Zealanders and Australians to settle in each other's country, accounted for most of the increase; the TTTA formalised practice since colonial times (Carmichael and Warwick, 1993[5]). Since the 1990s, incomes in Australia and New Zealand have broadly grown in line and emigration has declined, albeit with large fluctuations that depend on the relative states of the labour markets in the two countries. Even so, at around 1.3% of the population on average over the past four years, emigration remains high relative to the rate in Canada but, in contrast to earlier periods, is only somewhat higher than in Australia. Emigration to Australia has represented around 40% of total emigration in recent years, somewhat less than the long-run average, with the vast majority (80%) being New Zealand citizens. Emigration of non-NZ citizens has increased as a share of total emigration in recent years, largely reflecting substantial increases in temporary migration (see below).

Figure 2.1. A large income gap with Australia emerged over the 1960s-1990s

GDP per capita computed at 2017 USD PPP



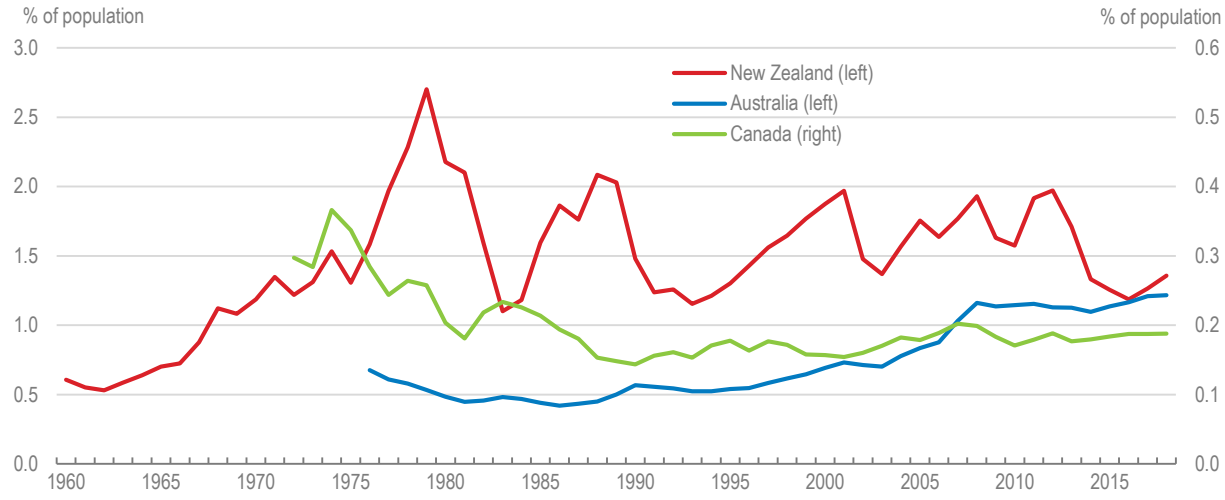
Source: The Conference Board, *Total Economy database*, April 2019.

StatLink https://doi.org/10.1787/888933949347

New Zealand's diaspora has grown markedly in recent decades (Figure 2.3, Panel A) to one of the largest relative to population in the OECD (Panel B). In 2015/16, 583 thousand NZ-born people lived in other OECD countries, which at 13.5% of the national population was the fourth highest share among OECD countries. Most of New Zealand's diaspora lives in Australia, followed by other English-speaking countries (Table 2.1). However, New Zealand's diaspora outside Australia is inflated by many young New Zealanders living abroad for short periods. Over the past 20 years, around 90% of the 355 000 New Zealanders who departed for countries other than Australia were matched by New Zealanders returning. In contrast, most New Zealanders who depart for Australia don't return, with arrivals of New Zealanders from Australia being only 34% of the 630 000

departures over the past 20 years. Over the past five years, net emigration of New Zealanders has fallen, with fewer departing for Australia and more returning from other countries.

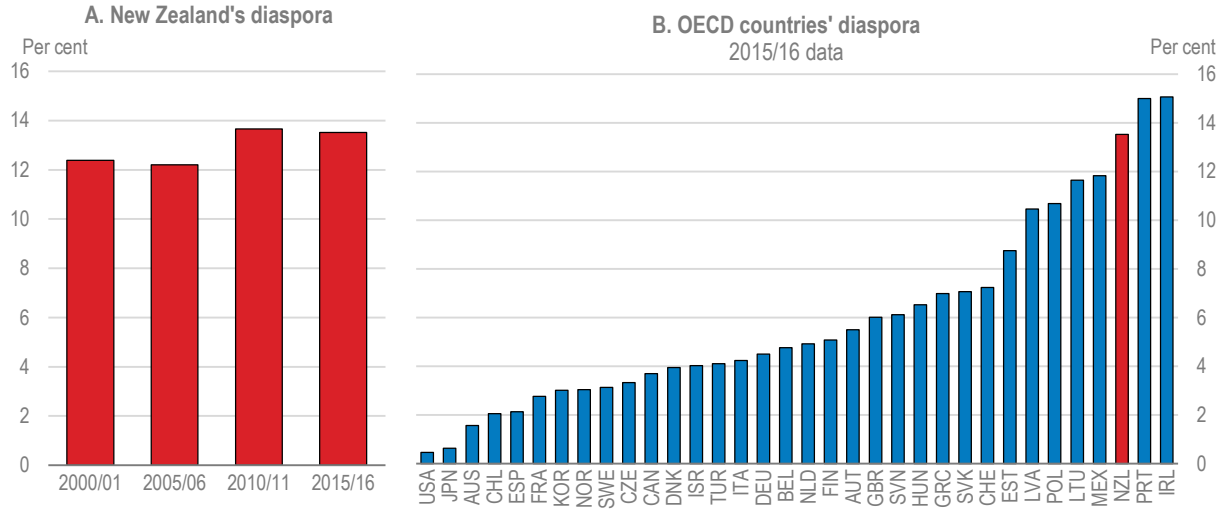
Figure 2.2. Emigration from New Zealand is high



Source: Stats NZ; Statistics Canada; and Australian Bureau of Statistics.

StatLink https://doi.org/10.1787/888933949062

Figure 2.3. New Zealand's share of the native-born population living abroad is high



Source: Data on Immigrants in OECD Countries (DIOC) database.

StatLink https://doi.org/10.1787/888933949366

Table 2.1. Most NZ emigrants live in Australia and many are highly educated

	Population 15+ (thousands)	%	Highly educated[1] (%)
Australia	471.1	80.9	34.5
United Kingdom	50.1	8.6	61.5
United States	31.8	5.5	52.6
Canada	11.5	2.0	71.7
Japan	3.6	0.6	..
Netherlands	3.0	0.5	34.7
France	2.0	0.3	55.2
Ireland	1.8	0.3	55.5
Switzerland	1.5	0.3	57.6
Other OECD	6.1	1.0	45.9
Total	582.5	100.0	39.2

1. Individuals with tertiary education.
Source: Database on Immigrants in OECD Countries (DIOC).

High-skilled emigration is a drag on the economy

New Zealand's diaspora is increasingly more highly educated than the NZ resident population. The share of New Zealand's diaspora aged 15 and over with tertiary education attainment increased from 29% in 2000/01 to 39% in 2015/16, a higher rate than for the NZ resident population (29% in 2013). The tertiary attainment rate of the diaspora was only slightly higher in Australia than for the NZ resident population but was much higher in the other main destination countries (Table 2.1). As a share of the university-educated population in New Zealand, the university-educated diaspora was 15% in 2015/16, far higher than in other English-speaking countries except Ireland (14%); the corresponding shares for Australia, Canada, the United Kingdom and the United States were 3%, 4%, 11% and 1%, respectively.

Digging a little deeper into the education attainment of the New Zealand-born population in Australia, there appears to be something of a 'trades drain'. The share of the NZ-born population aged 15 and over with post-secondary qualifications below university degree level is higher in Australia than in New Zealand (Table 2.2). By contrast, the share of the NZ-born with a Bachelor's degree or higher is similar in Australia and New Zealand.

Table 2.2. Education attainment, 2016

Population aged 15 and over

Qualification	NZ-born in Australia	NZ-born in New Zealand[1]	Australian-born in Australia
Post-secondary, non-university degree	35	30	32
University degree	18	17	20

1. 2013. Had the share of the NZ-born in New Zealand at each qualification level evolved in line with the shares for all NZ residents over 2013-16, there would have been 28% with post-secondary non-university degree qualifications in 2016 and 19% with university degree qualifications (no breakdown by place of birth is available for 2016).
Source. Australian Bureau of Statistics 2071.0; Statistics New Zealand, 2013 Census.

Salaries for persons with trades qualifications are 28% higher in Australia than New Zealand adjusting for differences in purchasing power, encouraging the NZ-born with these qualifications to emigrate there; pay differentials are smaller for occupations requiring fewer years of education and training (Table 2.3). In the other main countries to which New

Zealanders emigrate, many such qualifications are unlikely to be sufficient to qualify for residence under their selective immigration rules. Earnings for people with university education attainment are considerably higher in most of the countries to which the NZ-born emigrate (Table 2.4), helping to explain the large share of the NZ-born with tertiary qualifications in these countries.

Table 2.3. Earnings for professional and trade occupations are much higher in Australia than New Zealand[1]

Annual median earnings from main job (US Dollars, PPPs 2018)

	Australia	New Zealand	Ratio
Occupation[2]			
Managers	112 619	90 848	1.2
Professionals	99 307	75 229	1.3
Technicians and trade workers	93 228	73 003	1.3
Community and personal service workers	62 133	58 176	1.1
Clerical and administrative workers	77 104	66 476	1.2
Sales workers	59 666	52 894	1.1
Machinery operators and drivers	80 827	73 192	1.1
Labourers	60 787	53 385	1.1

1. For New Zealand, trade qualifications include Level 1-3 (Post-school certificate), and Level 4-6 (Certificate/Diploma) qualifications. For Australia, trade qualifications include Certificates III and IV, and Advanced Diploma/Diploma qualifications.
2. Occupations are ranked in terms of the Australian and New Zealand Standard Classification of Occupations (ANZSCO). ANZSCO is a skill-based classification system used to classify all occupations and jobs in the Australian and New Zealand labour markets. Occupations are organised on the basis of their similarities in terms of both their skill level and skill specialisation.
Source: Statistics New Zealand and Australian Bureau of Statistics.

Table 2.4. Earnings for people with university degrees are higher in most in OECD countries to which university educated New Zealanders emigrate[1]

Ratio of earnings of full-time workers with university degrees (25-64 years old) abroad to New Zealand, 2016

Countries	Bachelor's or equivalent	Master's, doctoral or equivalent
United States	1.6	1.8
Switzerland	1.5	1.5
Netherlands (2014)	1.3	1.5
Ireland	1.3	1.4
Germany	1.5	1.4
Denmark	1.2	1.3
Canada (2015)	1.2	1.2
Australia	1.2	1.2
France (2014)	0.9	1.1
United Kingdom	1.0	1.0
Korea	0.8	0.9

1. Earnings net of income tax converted to USD using PPP exchange rates for private consumption, 2016. Such earnings in New Zealand were USD 49 700 for a Bachelor's degree or equivalent and USD 58 600 for a Master's or doctoral degree or equivalent in 2016.
Source: OECD, Education at a Glance, Annex 3 Table X3.A4.b. (2018).

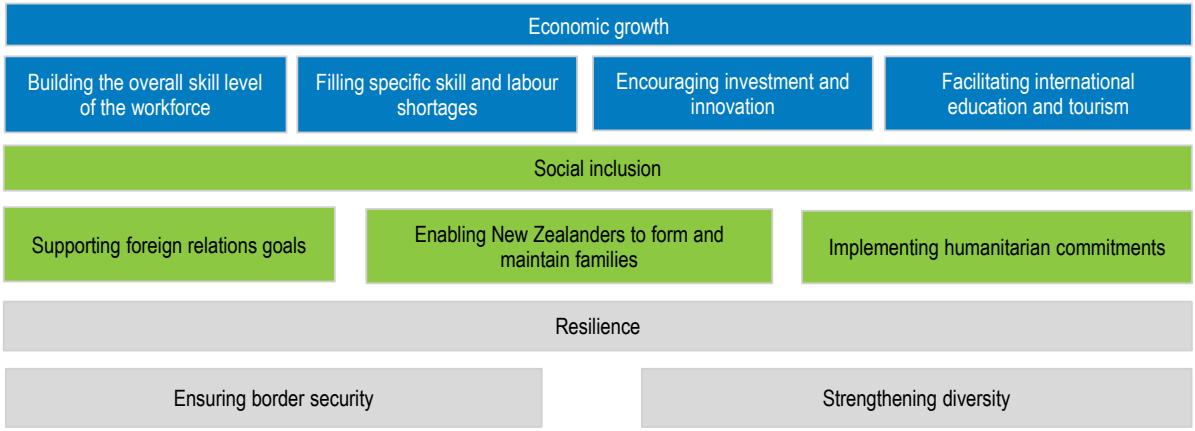
High-skilled emigration is also likely to cause skills shortages, disproportionately reduce high-skilled employment as complementarities between high-skilled jobs diminish and reduce agglomeration economies. The consequences of such effects are lower productivity and living standards.

Immigration is high with a focus on attracting high-skilled people

New Zealand has a managed immigration model that targets skilled people

New Zealand's immigration system is predominantly aimed at increasing the well-being of permanent NZ residents (both NZ-born and immigrants) and is well run. It has a managed immigration model with defined legal pathways for people to come and live in the country. The immigration system has multiple and sometimes competing objectives in the areas of economic growth, social inclusion and resilience (Figure 2.4). While each government articulates the objectives of the immigration system differently, there has been little change in the overall themes in recent decades. Since the early 1990s, when the points-based system modelled on those in Australia and Canada was first adopted, there has been a strong skills focus. High-skilled immigration helps to mitigate the adverse economic effects of high-skilled emigration.

Figure 2.4. The immigration system aims to support economic growth, social inclusion and resilience



Source: The Treasury, direct submission to the OECD.

The government sets a planning range for resident admissions to achieve a pace and mix of immigration that is judged best to contribute to economic and social well-being. For 1 July 2018-31 December 2019, the planning range is 50 000 to 60 000 resident admissions (around 0.7% of the population at an annual rate) (Table 2.5). The number of annual admissions increased in the early 2000s and has since fluctuated around current levels (Figure 2.5, Panel A). At the same time, the skilled migrant share increased to around the current level (Panel B), which is one of the highest shares in the OECD (Figure 2.6). Skilled migrant principal applicants make up about one third of the skilled intake. Spouses/partners of skilled principal applicants also tend to be well educated. The refugee intake is to rise from 1 000 per year currently, which is low as a share of the population by international comparison, to 1 500 in 2020.

The existing residence planning range and streams structure is to be replaced from 1 January 2020 by a framework in which the government controls residence numbers and

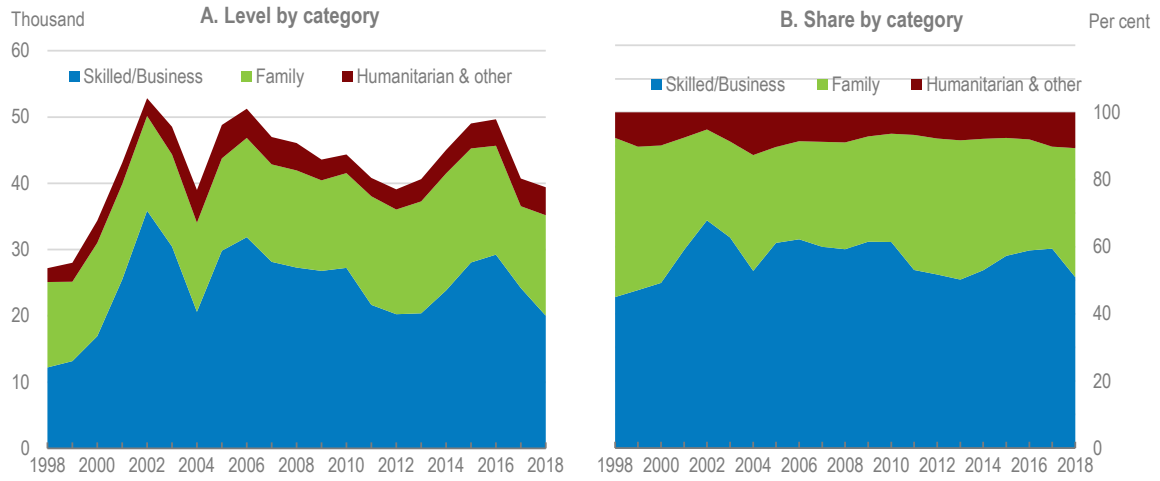
priorities directly through forecast individual policy settings for each of the individual categories in the New Zealand Residence Programme streams. This change will end the need to vary admission criteria (and hence immigrant quality) in the Skilled Migrant category, which is the main stream that can be readily adjusted, to conform to the overall planning range.

Table 2.5. The majority of residence approvals are in the skilled/business category

Years ending 30 June	2013/14	2014/15	2015/16	2016/17	2017/18	2018-2020[1]
Skilled/business	22 923	24 276	29 718	28 647	20922	
Skilled Migrant category	20 265	21 165	25 755	24 138	17085	
Residence from Work	1 419	1 716	1 947	2 355	2511	
Other skilled/business	1 236	1 398	2 013	2 154	1326	
Total skilled business, % of total	52.1	56.3	57.1	60.1	55.1	51
Family	17 718	15 168	18 192	15 021	13092	
Partnership	9 963	8 919	10 809	10 911	9576	
Parent	6 012	4 479	4 941	1 824	1671	
Other family	1 743	1 770	2 442	2 286	1845	
Total family, % of total	40.3	35.2	35.0	31.5	34.5	38
International/Humanitarian	3 369	3 639	4 140	4 020	3936	
Samoan quota scheme and Pacific access category	1 302	1 476	1 593	1 773	1758	
Refugee quota	759	900	1 458	1 218	1116	
Other international/humanitarian	1 308	1 263	1 089	1 029	1062	
Total international humanitarian, % total	7.7	8.4	8.0	8.4	10.4	11
Total	44 010	43 083	52 050	47 688	37950	50 000- 60 000

1. Planning range for 1 July 2018-31 December 2019. From 1 January 2020, the planning range will be replaced by a more targeted approach that focuses on the management of specific residence visa types.
Source: MBIE (2018), Migration Trends and Outlook 2016/17, https://www.mbie.govt.nz/info-services/immigration/migration-research-and-evaluation/trends-and-outlook/2016-17.

Figure 2.5. The skilled/business category has been dominant in residence approvals since the early 2000s



Note: Ending-June data.
Source: Ministry of Business, Innovation and Employment (2019), *Migration Data Explorer*.

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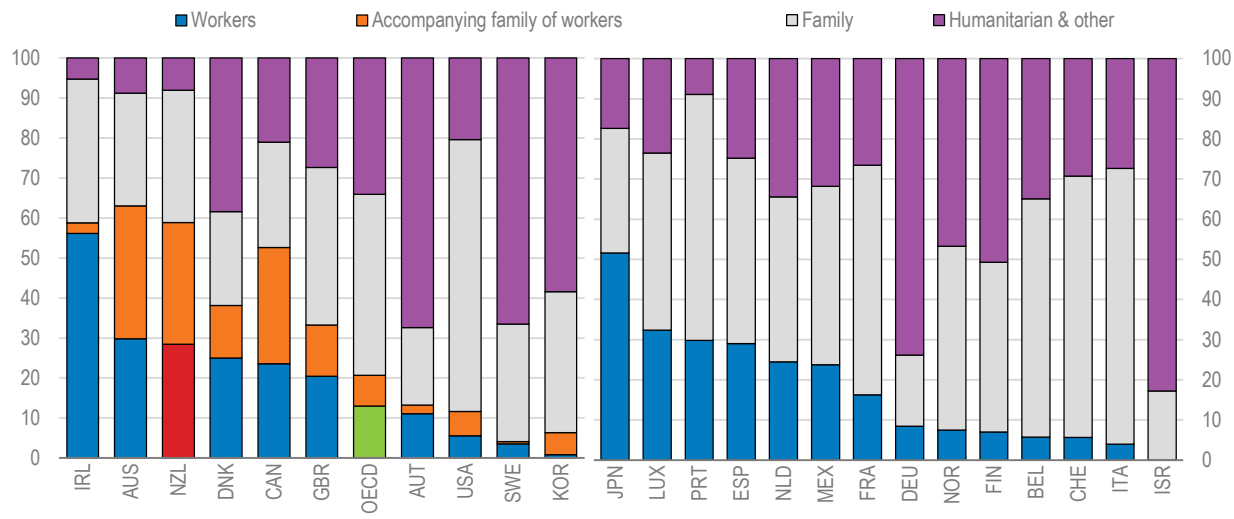
Figure 2.6. The share of skilled immigrants (and accompanying family) in residence approvals is one of the highest in OECD countries[1]

Per cent of total residence approvals excluding free movements and other, 2016



1. Countries that do not separately identify accompanying family of workers are shown on the right-hand side of the figure. In these countries, accompanying family of workers are included in the family category.
Source: OECD (2018), *International Migration Outlook 2018*, Annex Table 1.A.2.

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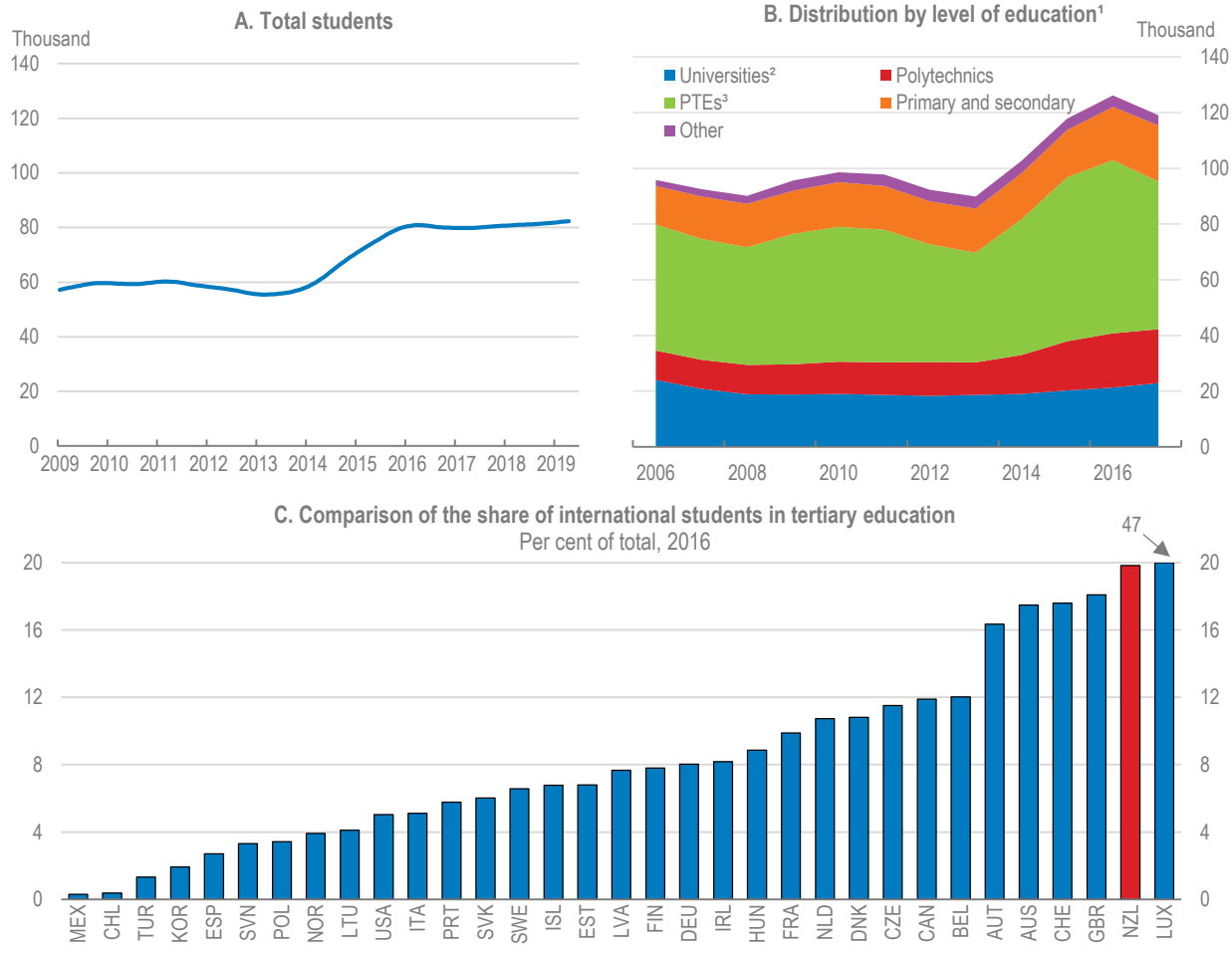
Temporary immigration has expanded markedly over the past two decades

Following a period of consolidation after the sharp increases in the late 1990s and early 2000s, the number of student visa holders has increased by one third since 2014 (Figure 2.7, Panel A). Three quarters of students are at post-secondary level (Panel B). Polytechnics and private training establishments have increased their shares of international students in recent years while universities have lost share. New Zealand has the second highest share of international students in tertiary education (20%) in the OECD (Panel C). International education has grown to be the fifth biggest export sector in New Zealand. It is also an important route for attracting skilled immigrants well acquainted with life in New Zealand – more than 30% of international students stay in New Zealand after their studies to work, at least temporarily.

Temporary work migrant numbers have soared during the past decade (Figure 2.8). The largest contribution to the increase in the stock came from Study to Work visas, which allow international students who have graduated to work in New Zealand for up to three years. The aim of this scheme is to enable former international students who want to stay in New Zealand to gain skilled work experience to help them to qualify for residence. Despite having grown more slowly than the other temporary work visa categories, Essential Skills migrants remain the largest temporary work migrant group. The Essential Skills scheme is a labour market tested policy that allows New Zealand's employers to recruit workers from abroad to meet shortages they cannot fill locally. In 2016/17, almost two thirds of Essential Skills workers were in medium- to high-skilled occupations according to the ANZSCO (levels 1-3 on a scale up to 5, with level 1 being the highest skill level). This scheme is undoubtedly an important part of the response to the 'trades drain' to Australia. It is also the cornerstone of New Zealand's immigration system, as more than half of new permanent migrants had such a visa at some stage (OECD, 2014[6]). In all,

temporary labour migrants represent almost 5% of the labour force in New Zealand, by far the highest share among OECD countries (Figure 2.9).

Figure 2.7. Student visa holders



1. International fee-paying students.
2. Includes Colleges of Education.
3. PTEs (Private Training Establishments) are tertiary education providers privately owned. They are registered by NZQA and to enrol international students, they must be signatories to the Code of Practice for the Pastoral Care of International Students.
Source: Ministry of Business, Innovation and Employment, https://www.educationcounts.govt.nz/statistics/international-education/international-students-in-new-zealand; OECD, *Education database*.

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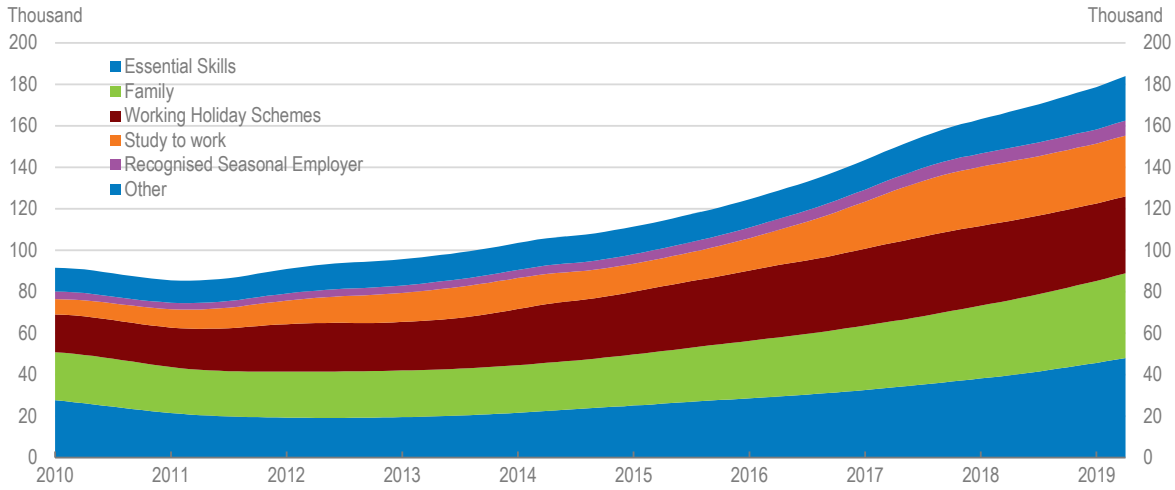
Figure 2.8. Stock of temporary work visa holders by work visa policy



Source: Ministry of Business, Innovation and Employment, https://mbienz.shinyapps.io/migration_data_explorer/.

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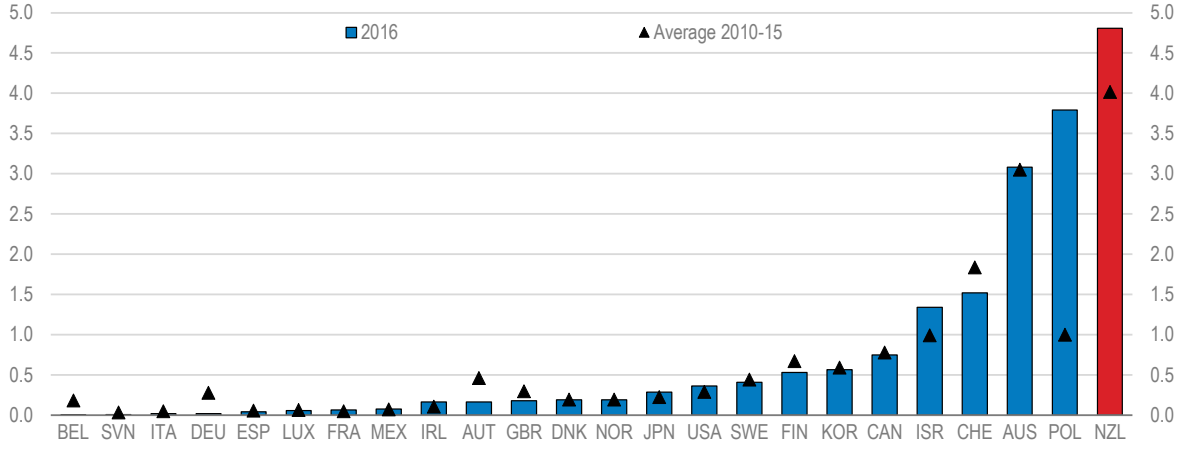
Figure 2.9. Temporary labour migration

As a percentage of the labour force



Note: The data consist of inflows of seasonal and non-seasonal (interns, intra-company transfers and working holidays) foreign workers who obtained a working visa.
Source: OECD, *International Migration database and Annual Labour Force Statistics database.*

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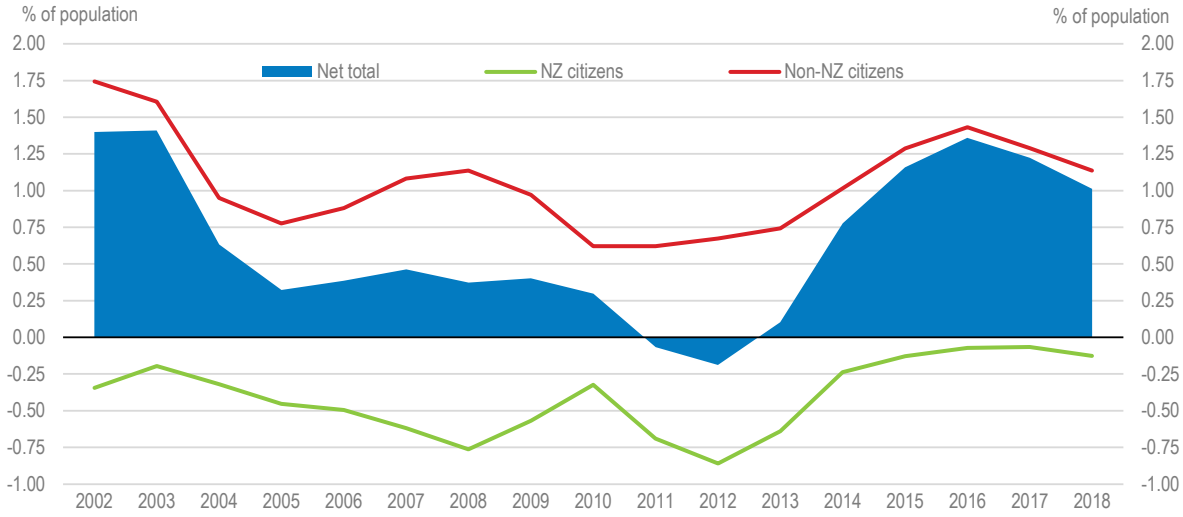
Net migration contributes to high population growth and 'brain exchange'

Net permanent and long-term migration has soared in recent years, peaking at 63 948 (1.4% of the total population; positive values reflect an inflow) in the year to July, 2016, well above the yearly average of 29 000 since 2002 (Figure 2.10); the methodology for collecting migration data has been overhauled, resulting in lower estimated net migration flows in recent years, as shown in Figure 2.10, than in the old intentions-based series (Box 2.1). Around one half of this net inflow went to Auckland (this share is likely to be somewhat lower when new, regional outcomes-based data become available), accentuating

pressures on its housing market (see Chapter 3). The surge reflected simultaneous peaks in net migration of both NZ and non-NZ citizens, which is unusual. Net migration of NZ citizens increased to around zero as labour market conditions in Australia deteriorated relative to those in New Zealand following the end of the Australian mining boom. Net migration of non-NZ citizens peaked at a higher level than in the previous cycle a decade ago but at a lower level than in the early 2000s. Net migration has contributed around 30% of annual population growth on average since the early 1990s, but has become the dominant driver in recent years (Figure 2.12) (albeit somewhat less so when the new outcome-based data are integrated).

Figure 2.10. Net permanent and long-term migration has been high in recent years[1]



1. Annual as of June. Data from 2002-14 are experimental series, 2015-18 are new series.
Source: Stats NZ.

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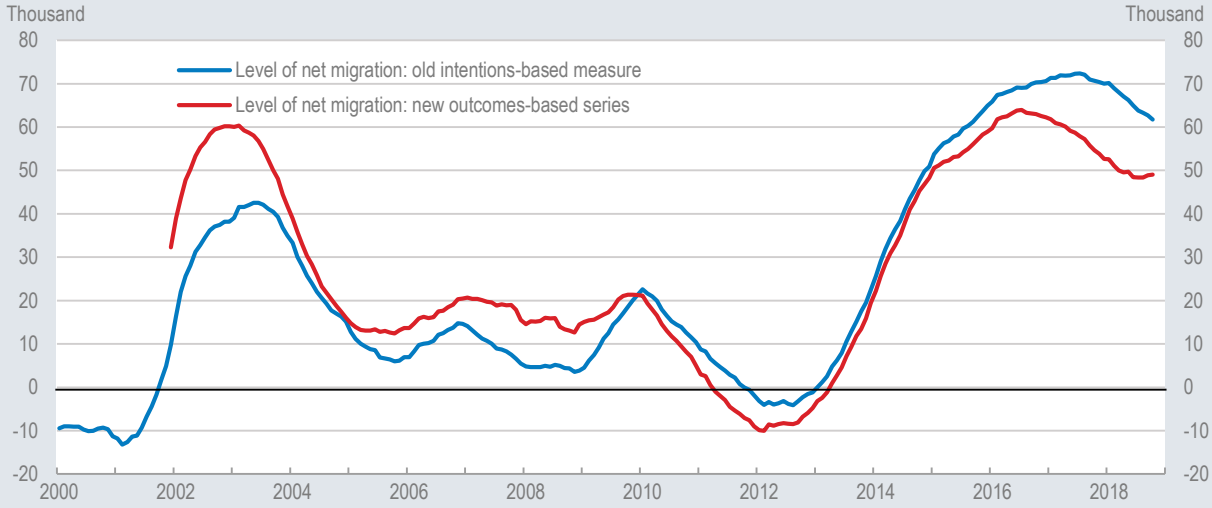
Box 2.1. Revisions to migration data

Statistics New Zealand recently overhauled its approach to measuring migration flows. Previously, net migration estimates were based on peoples' stated intentions on immigration arrival and departure cards. This approach ended in October 2018 with the removal of the requirement for travellers to complete departure cards. Under the new outcomes-based measure, border crossings are used to estimate how long people actually spend in New Zealand, giving a more accurate measure of actual rather than expected migration flows. However, it takes 17 months to finalise outcomes-based measures, so the most recent 16 months of data are provisional estimates constructed using a statistical model, with estimates for recent months subject to substantial uncertainty.

In principle, the change in approach could either increase or decrease measured migration, but in practice it has led to a substantial downward revision in net immigration over the past four years, when net inflows were 41 000 less than previously thought (Figure 2.11). Consequently, growth in the working-age (and total) population, employment, household

disposable income and new demand for housing has been lower than previously thought, as has household saving. Concomitantly, labour productivity has been higher.

Figure 2.11. New measures show lower net migration



Note: Cumulative data for the past four quarters. Before June 2014, the outcomes-based series has been extended using Stats NZ's discontinued experimental series.
Source: Stats NZ and Reserve Bank of New Zealand.

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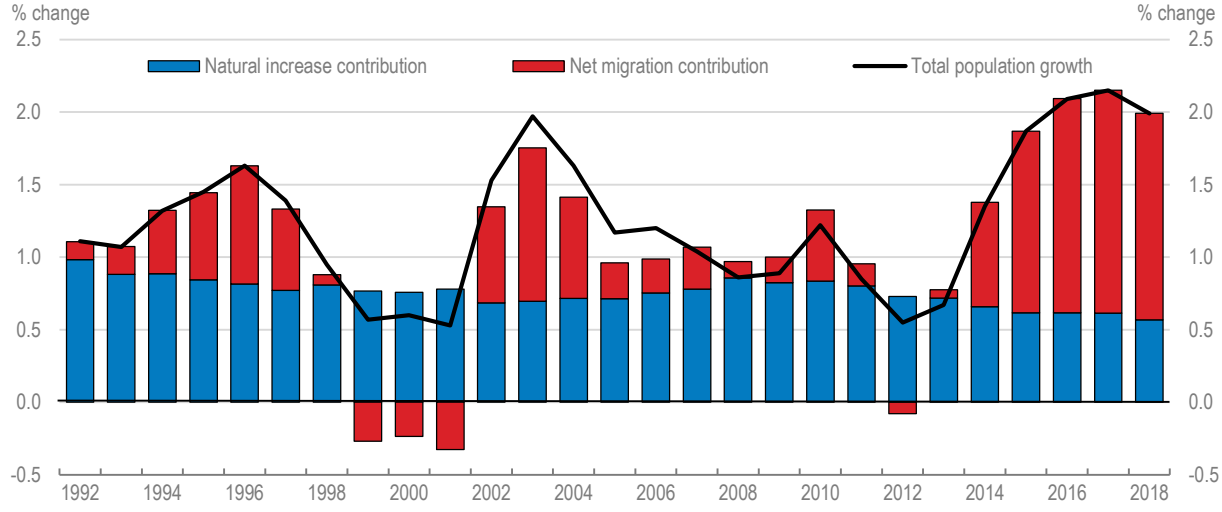
Figure 2.12. The contribution of net migration to population growth has increased



Note: Net migration is based on the old intentions-based series.
Source: Stats NZ, *Estimated Resident Population Change - End-March data*, Table DPE069AA.

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High-skilled immigration has more than offset New Zealand's brain drain, resulting in a 'brain exchange'. As a share of New Zealand's population aged 15 or over in 2015/16, immigrants comprised 40% of those with high (i.e., tertiary) education while NZ citizens with high education living abroad (i.e., emigrants) represented 21% (Table 2.6). Thus, net migration accounted for 19% of the population aged 15 or over with high education. By contrast, net migration only represented 11% of the population with less than tertiary attainment.

Table 2.6. Net migration by skills level

	Immigration	Emigration	Net migration
Education level[1]	Stock (thousands), 2015/16		
High education	399	210	189
Low-middle education	619	326	293
Total	1 018	536	482
	% of the total		
High education	39.2	39.2	39.2
Low-middle education	60.8	60.8	60.8
	% of population aged 15 and over, 2015/16		
High education	39.6	20.8	18.8
Low-middle education	23.9	12.6	11.3
Total	27.4	14.4	13.0

1. Low education refers to lower secondary education; medium education corresponds to upper secondary education and post-secondary non-tertiary education; and high education refers to tertiary education.
Source: Database on Immigrants in OECD Countries 2015/16 (DIOC).

Net inward migration is essential to working-age population growth over coming decades. Without it, New Zealand's working-age population (15-64 years) would decline by 7% over 2016-68 in Statistics New Zealand's (2016[7]) population projection compared with an increase of 42% in a high immigration scenario (30 000 per year).

Nevertheless, while net immigration helps to mitigate population ageing, it only has a small effect on the age structure of the population in the long run because immigrants age too. While the old-age dependency ratio increases from 23% to 54% in the zero net immigration scenario, it still rises to 45% in the high net immigration scenario. Consequently, net immigration can only help to mitigate the fiscal effects of population ageing, not largely offset them.

Migration is increasing the cultural diversity and education attainment of New Zealand's population

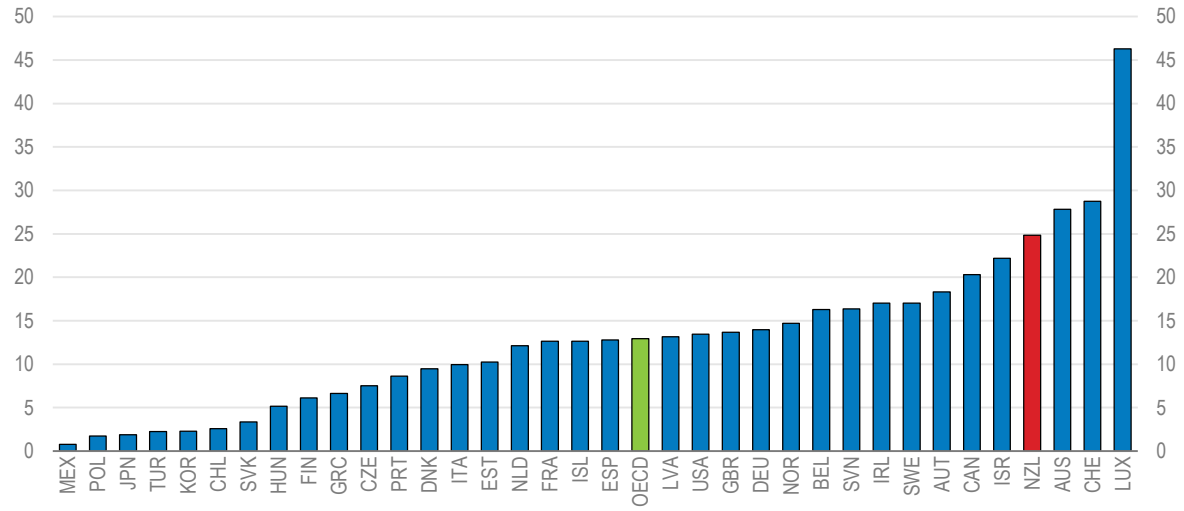
Immigrants have become a large and increasingly culturally diverse part of New Zealand's population

The share of immigrants in New Zealand's population has increased by one-half since the mid-1990s to 25% in 2016, one of the highest in the OECD (Figure 2.13). Almost half of the population is foreign-born in Auckland, where most immigrants settle. In 2014, one quarter of New Zealand's foreign-born population was born in the United Kingdom, by far the largest immigrant group, reflecting historical immigration patterns (Table 2.7). The next largest groups were from China and India. In terms of flows, China, India and the United Kingdom are the largest immigrant source countries. Birthplace diversity, which may positively affect economic prosperity (Alesina, Harnoss and Rapoport, 2016[8]), is

moderate by international comparison for the stock of immigrants but higher for recent arrivals (Figure 2.14).

Figure 2.13. The foreign-born share of the population is high in New Zealand

2016 or earlier year[1]



Note: 2015 for Chile, Greece, Mexico, Portugal and 2011 for Poland. For Japan and Korea, the data refer to the foreign population rather than the foreign-born population. The OECD is a simple average based on rates presented.
Source: OECD (2018), *International Migration Outlook 2018*, Table A.4 and Figure 1.12.

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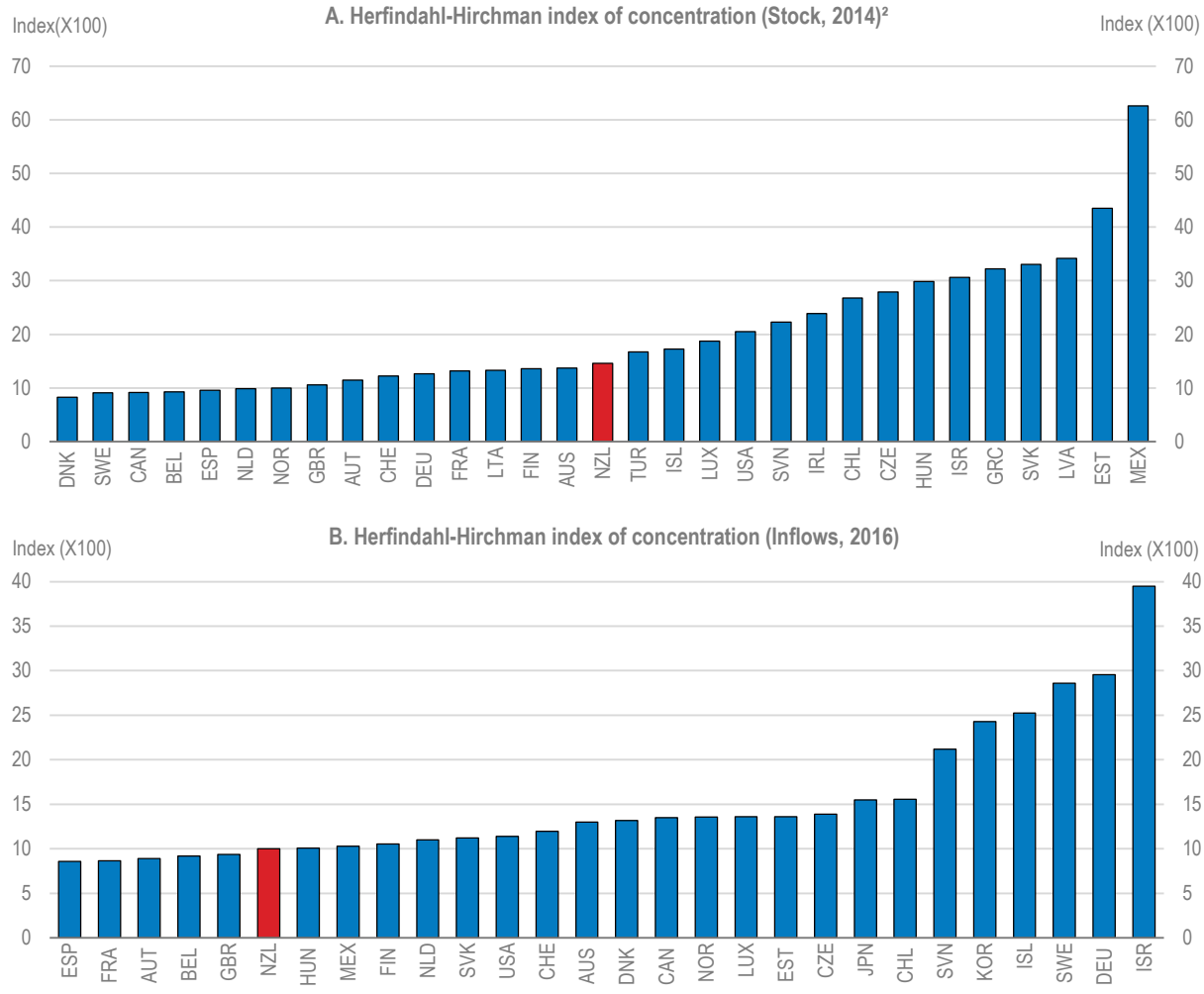
Table 2.7. Stock and inflows of foreign-born population by country of birth

	Stock				Inflow shares (%)	
	2007		2014		2006	2016
	Thousands	Share (%)	Thousands	Share (%)		
United Kingdom	243.6	27.7	255.0	25.5	25.2	11.3
China	78.1	8.9	89.1	8.9	7.4	12.7
India	43.3	4.9	67.2	6.7	5.3	11.6
Australia	62.7	7.1	62.7	6.3	8.2	6.3
South Africa	41.7	4.7	54.3	5.4	3.1	4.7
Fiji	37.7	4.3	52.8	5.3	4.3	2.0
Samoa	50.6	5.8	50.7	5.1	2.2	1.7
Philippines	15.3	1.7	37.3	3.7	4.5	6.3
Korea	28.8	3.3	26.6	2.7	3.3	2.6
Tonga	20.5	2.3	22.4	2.2	-	-
United States	18.3	2.1	22.1	2.2	3.9	3.4
Netherlands	22.2	2.5	19.9	2.0	-	-
Malaysia	14.5	1.7	16.4	1.6	2.1	1.3
Cook Islands	14.7	1.7	13.0	1.3	-	-
Germany	10.8	1.2	12.9	1.3	3.9	4.8
Other countries	176.6	20.1	199.5	19.9	26.6	31.3
Total	**879.5**	**100.0**	**1 001.8**	**100.0**	**100.0**	**100.0**

Source: OECD, International Migration Outlook 2018, Tables B.1 and B.4.

Figure 2.14. Birthplace diversity is average for the stock of immigrants but high for the flow[1]



1. Diversity is measured by one minus the Herfindahl-Hirchman (HH) index of immigrant birthplace concentration. Thus, a higher HH index value corresponds to lower birthplace diversity.
2. 2015 for Greece and Ireland, 2013 for Chile and France, 2012 for Canada and 2011 for the Czech Republic.
Source: OECD, *International Migration Outlook 2018*, Statistical Annex, Table B.1 and B.4; and OECD calculations.

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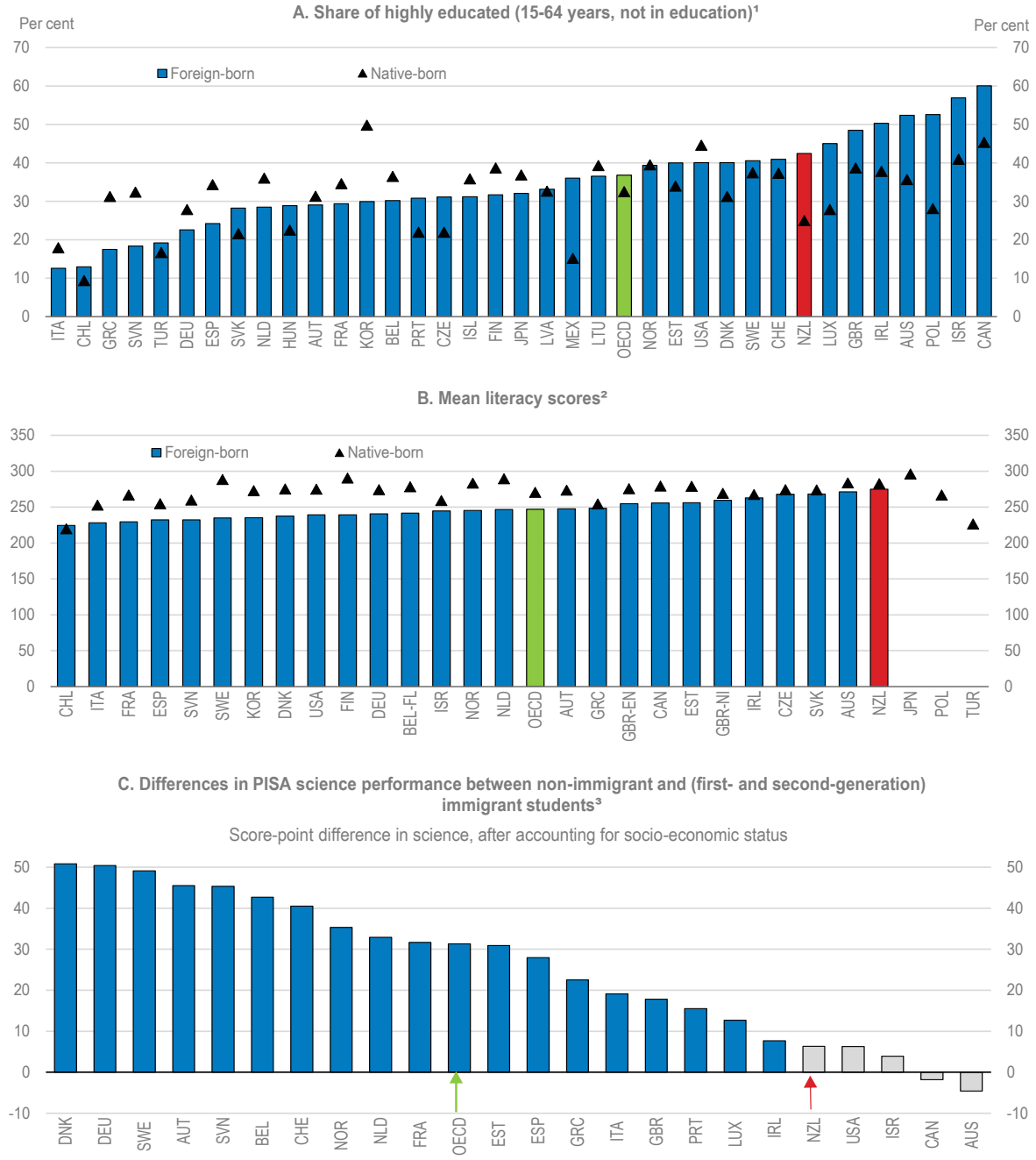
Immigrants and their children are more highly educated than the native-born population

Immigration is increasing the average education attainment of the NZ population (Figure 2.15, Panel A). A considerably higher share of immigrants than the NZ-born have tertiary attainment, reflecting the effectiveness of the immigration system in attracting such immigrants. Immigrants also boast higher literacy scores in New Zealand than in any other OECD country, contributing to a narrow gap in scores between the native-born and immigrants by international comparison (Panel B).

Figure 2.15. Immigrants in New Zealand are highly educated and their children's education achievement is on a par with that of non-immigrants



1. Highly-educated is tertiary (ISCED 5-8) attainment. Canada and New Zealand include people still in education. Immigrants are determined on the basis of nationality in Japan.
2. BEL-FL corresponds to Flanders, GBR-EN to England and GBR-NI to Northern Ireland.
3. A positive score indicates better performance for non-immigrants than immigrants. The blue bars denote that they are statistically significant and the grey bars that they are not.
Source: OECD (2018), *Settling In 2018: Indicators of Immigrant Integration;* OECD (2016), *Skills Matter: Further Results from the Survey of Adult Skills,* Annex A; OECD, *Survey of Adult Skills (PIAAC) (2012, 2015);* OECD (2016), *PISA 2015 Results (Vol I): Excellence and Equity in Education.*

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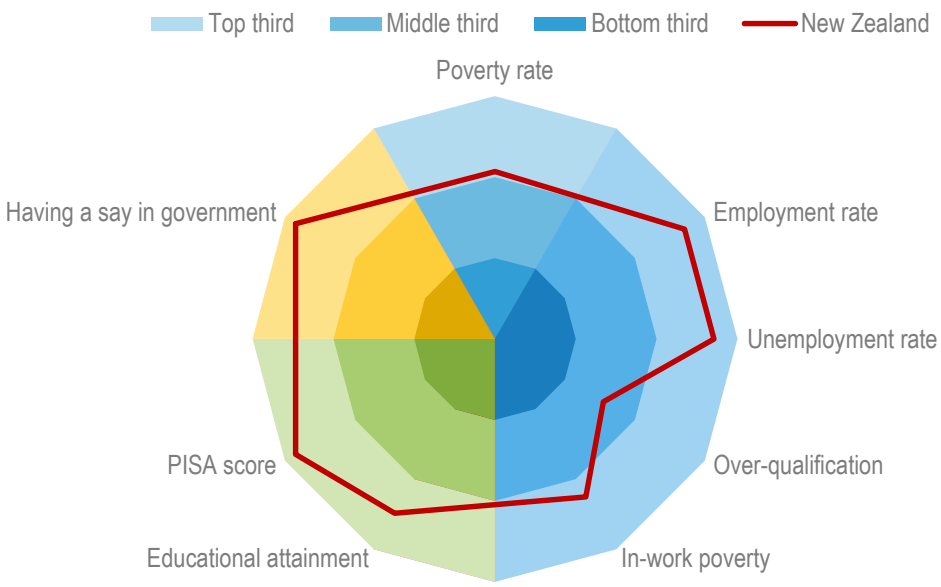
Immigrants' children also succeed well in education. Their PISA results are on a par with those for non-immigrant children controlling for socio-economic background, whereas in most other countries their scores are lower (Panel C). Among immigrant groups, Asian students do well and Pasifika students less so (May, Flockton and Kirkham, 2016[9]). Education attainment of second-generation immigrants is higher than for the native-born (OECD and European Union, 2015[4]).

Immigrants in New Zealand have high levels of well-being

Immigrants in New Zealand tend to have better well-being outcomes than those living in other OECD countries. Compared with immigrants in other countries, immigrants in New Zealand rank in the top third of OECD-country immigrants for well-being outcomes in the areas of education, employment, poverty and having a say in government (Figure 2.16). However, over-qualification outcomes are less favourable, with migrants settled in New Zealand only ranking in the middle third of OECD-country migrants.

Figure 2.16. Immigrants tend to have better well-being outcomes in New Zealand than in most OECD countries



Source: OECD (2017), *How's Life in New Zealand.*

StatLink https://doi.org/10.1787/888933949537

In contrast to the experience in most other OECD countries, where immigrants have mostly worse outcomes than the native-born, immigrants in New Zealand tend to experience similar well-being outcomes. In particular, NZ immigrants have similar levels of well-being outcomes to the native-born for life satisfaction, PISA scores, perceived health and having a say in government. They are more likely to feel safe than the native-born but are also more likely to express loneliness and to experience discrimination and tend to have slightly lower literacy scores. Immigrants in New Zealand also report relatively low

participation rates in elections relative to those for the native-born, which is a sign of weak civic engagement and hence social integration.

Immigration has small positive effects on long-run incomes

Immigration may increase GDP per capita modestly in the long run

In the simplest neo-classical growth model, net migration has no effect on GDP per capita in equilibrium. A net inward migration shock increases the labour supply and, with the capital stock fixed in the short run, reduces labour productivity and wage rates but increases the return on capital, which has become scarcer relative to labour. In the presence of international capital mobility, capital will be imported until the rate of return returns to the internationally going rate, leaving capital intensity on the same long-run path as before the population shock. In the long run, productivity and real wage rates will be the same as if the net migration shock had not occurred. In this model, net migration can only affect living standards in the long run if multifactor productivity (MFP) is affected. Given that the increase in investment that follows an increase in immigration will embody technical progress, positive long-run MFP effects are in fact likely.

Boubtane and Dumont (2013[10]) extend the above simple neo-classical model to take skills levels into account. Estimating their model using data for 22 OECD countries over 1986-2006, they find that an increase in net migration increases labour productivity growth slightly: for the EU15 countries, an increase in the net immigration rate of 1 percentage point would increase labour productivity growth by 0.1-percentage point. This result matches the average effect of net migration found in a meta-analysis by Ozgen et al. (2010[11]).

Brunow, Nijkamp and Poot (2015[1]) extend the analysis to cover a wider range of countries over a longer period (1950-2010) and control for income convergence (including effects by continent) but not for skills. They find that net immigration has no effect on GDP per capita growth in the current decade but that there is a weakly significant negative effect in countries experiencing net emigration. Focussing on 36 rich countries (including New Zealand) that have high rates of net migration, Brunow et al. find that net immigration has a positive effect on GDP per capita at a lag of two decades (although these results should be considered as indicative as it is technically difficult to estimate the long-run effects of net migration precisely). This would be consistent with the integration of new immigrants taking 10 to 20 years (see below), while endogenous productivity growth through new investment or other channels may take a similar time to be realised.

Using a computable general equilibrium (CGE) model of the NZ economy, Nana, Sanderson and Hodgson (2009[12]) find that doubling annual net immigration to 40 000 non-NZ-born migrants over 2006-21 would increase GDP per capita by 1.5% over the baseline by 2021. For this and a variety of scenarios with alternative assumptions for technical change, international trade propensities, the skills mix of immigrants and investment, the authors find that increased immigration: reduces production costs, improves export competitiveness, benefits domestic investment and/or consumer spending, and increases government net lending. The authors also tested the effects of cutting the net immigration flow to zero and found that this would result in GDP per capita falling to 1.8% below the baseline level by 2021. A critical assumption underpinning the positive effect of immigration on GDP per capita is that the capital-labour ratio is unaffected in the long run by changing levels of immigration. This may be a reasonable assumption for an advanced country with an open capital account, such as New Zealand, and in light of international

evidence that the long-run wage impact of immigration is very small (Hodgson and Poot, 2010[13]).

Immigration may boost productivity through agglomeration economies and innovation

An important channel through which net immigration may increase productivity is agglomeration economies, which are generated by concentrations of population in cities and industrial clusters (Glaeser, 2010[14]). Migrants are predominantly drawn to large cities by the benefits of greater agglomeration, including higher wages and greater amenities (Glaeser, 2011[15]). As noted above, this pattern also occurs in New Zealand, with around half of immigrants settling in Auckland, a city that accounts for around one third of New Zealand's population.

Based on longitudinal firm-level microdata, Maré (2016[16]) finds evidence that agglomeration economies contribute to higher productivity in Auckland. Value added per worker in Auckland is 17.9% higher than the average for other urban areas, with 4.4 percentage points of this premium attributable to industry composition. Controlling for Auckland firms' more intensive use of non-labour inputs, Auckland's productivity advantage falls further, to 7.9%, when labour inputs are measured as full-time-equivalent employment. However, Auckland firms disproportionately employ higher quality labour. Adjusting for labour quality, Auckland's productivity premium falls to 2.2%. This estimate controls for higher labour and input prices and lower output prices in Auckland than in other urban areas. Maré also demonstrates that failure to account for these spatial price differences biases downwards estimates of the Auckland productivity premium by 3 to 6 percentage points.

Agglomeration benefits in Auckland have been constrained by the failure of infrastructure investment and housing supply to keep up with population growth (see Chapter 3), which has resulted in growing traffic congestion (and water pollution) and rising house prices. Traffic congestion has directly reduced productivity and, together with rising house prices, made it more difficult for workers to move to a better skills-matched job where they would be more productive. Adalet McGowan and Andrews (2017[17]) estimate that reducing literacy skills mismatch in New Zealand to the best practice minimum could increase industry labour productivity by 7% through gains in allocative efficiency. They find that the biggest problem in this area is the relatively low long-run elasticity of new housing supply, which is only one third of the best practice level in the United States (Andrews, Caldera Sánchez and Johansson, 2011[18]).

McLeod et al. (2014[19]) report various ways in which inward migration could increase innovation, notably through increasing: the scale of the economy; the share of the workforce that is highly skilled; the cultural diversity of the workforce; and international knowledge transfers. Numerous empirical studies have identified a positive relationship between immigration at area level and innovation at the area or firm level in the United States and Europe (Kerr and Lincoln, 2010[20]); (Hunt and Gauthier-Loiselle, 2010[21]); (Ozgen et al., 2014[22]); and (Peri, 2007[23]). More recently, studies have begun to emerge using both migrant intensity and innovation outcomes at the firm level thanks to developments in linked employer-employee datasets. Using such a dataset for New Zealand, McLeod et al. (2014[19]) find that firms hiring greater numbers of recent immigrants and those hiring more recent returnee New Zealanders tend to innovate more than other firms. Furthermore, they find that it is the being new and high-skilled characteristics of these groups that are most important, at least for some forms of

innovation, as opposed to the outside perspective. They also find that the impact of high-skilled immigrants on innovation does not seem to be different from that of similarly high-skilled new employees. In other words, the main way that immigration policy facilitates innovation is through positive effects on the skills composition of the workforce.

Immigration seems to have a positive net fiscal impact

Immigrants appear to have a positive effect overall on public finances. Slack et al. (2007[24]) estimate that in FY 2005/06 immigrants contributed 24.7% of government revenue and accounted for 18% of government expenditure; government expenditure included education, health, benefits and allowances and superannuation but not infrastructure, which is difficult to attribute. Their net contribution to the budget balance (NZD 3 288 million) was greater than that of the NZ-born (NZD 2 838 million) despite comprising only 23% of the population. The larger net contribution of immigrants than the native-born is attributable to them being relatively young, often single and usually employed in relatively well-paid jobs.

Unfortunately, no NZ studies taking a life-cycle approach are available. Such studies would give a better indication of contributions to the budget and claims on it by immigrants and their children as they age. However, as Hodgson and Poot (2010[13]) note, the long-run net fiscal contribution on average of an immigrant is likely to be greater than that of a NZ-born person as an immigrant who enters New Zealand at working age will have been educated at another country's expense; for some categories of immigrants, such as elderly parents of immigrants, the opposite would hold. While the overall budget impact is likely to be positive, this is unlikely to hold for local government. Net inward migration tends to have negative effects on local government finances as it requires extra infrastructure investment but does not yield much more tax revenue for local government; most of the extra revenue flows to central government (see Chapter 3).

On average, immigration has no negative effects on the wage or employment of New Zealanders

In theory, immigrants reduce employment and/or wage rates of existing residents if the two groups are highly substitutable but have the opposite effects if they are largely complements. A vast international empirical literature has developed to estimate these effects in practice. Depending on model specifications, immigration has small negative or positive effects on the native-born in the labour market (Longhi, Nijkamp and Poot, 2010[25]). For example, Canadian studies generally find that overall immigration has no or only a small negative impact on the wage rates of Canadian workers but a relatively larger effect on those of other immigrants (OECD, 2018[26]).

Assuming that competition only occurs between recent migrants, earlier migrants and the NZ-born, Maré and Stillman (2009[2]) find that a 10% increase in the recent migrant share of the workforce is associated with 0.14 and 0.36 percentage point lower employment rates of the NZ-born and recent migrants, respectively, and 0.89% higher wages for the NZ-born. These positive wage effects suggest that recent immigrants are complements to NZ-born workers rather than substitutes. With these reduced-form regressions, the authors also find no significant impact on the wages of recent migrants themselves.

However competition is likely to occur across skills groups. To capture this effect, Maré and Stillman specify three different types of production function that allow the nature of competition and substitutability between migrants and non-migrants to differ. Regardless

of the production function used, the authors find little evidence that immigrants negatively affect either the wages or the employment opportunities of the average NZ-born worker. The only evidence of negative impacts of recent migrants on wages of the NZ-born is when the relative skill composition of recent immigrants is increased. This has a small negative effect on the wages of high-skilled NZ-born that is offset by a positive effect on wages of the medium-skilled NZ-born.

It has been argued that many empirical studies that find minor labour market impacts of immigration, such as Maré and Stillman (2009[2]), are biased because they do not take into account the effects beyond the local labour market (Borjas, 2003[27]), which in New Zealand's case would include effects on the Australian labour market. To test this hypothesis, Maré and Stillman (2010[28]) examine the relationship between inflows of migrants in particular skill groups and the geographical mobility of the NZ-born and earlier migrants. New Zealand is an ideal candidate to test this hypothesis given the overwhelming concentration of immigrants in Auckland. They find little support for the hypothesis that migrant inflows displace either the NZ-born or earlier immigrants with similar skills from the areas where immigrants are settling. If anything, their results suggest that there are positive spillovers between recent immigrants and other workers that encourage workers to move to or remain in the areas where similarly skilled immigrants are settling. Consequently, it appears unlikely that geographical mobility moderates any impacts of immigration on labour or housing markets in New Zealand.

The surge in migrants on temporary work visas in recent years (see above) has raised concerns about their impact on the employment and earnings of New Zealanders. Ministry of Business, Innovation and Employment (2018[3]) updates an earlier study (McLeod and Maré, 2013[29]) that was 'unable to find any evidence [of] adverse consequences for the employment of New Zealanders overall' (p. vii). The updated study, which uses 2000-15 data, finds that temporary migrants did not have negative effects on employment and new hires of New Zealanders on average, either in the same industry (direct effects) or when also taking into account effects in other industries (combined effects), and increased the average earnings of New Zealanders aged 25 years or more (but not of youth). Looking at different periods and subgroups, the study finds that there were:

- negative effects for beneficiary hires in 2001-05 and positive effects for youth hires in 2006-10 and 2011-15;
- positive effects for youth and beneficiary hires in major urban areas in all years and positive effects on earnings of New Zealanders aged 25 or over in Auckland;
- negative effects on beneficiary hires and positive effects on the earnings of New Zealanders aged 25 or more and New Zealanders as a whole in areas outside the 16 most urbanised ones;
- negative effects on new hires of beneficiaries in horticultural regions; and
- positive effects on new hires of all groups except beneficiaries (no effect) in the food services industry.

By temporary visa type, Ministry of Business, Innovation and Employment (2018[3]) finds that migrants on Essential Skills visas, which is the largest category of temporary work visas, have negative effects on hires of New Zealanders as a whole. The authors wondered if this effect might be attributable to employers, who have to guarantee a certain number of hours of employment to Essential Skills migrants, finding it easier (or being contractually obliged) to retain them over New Zealanders in challenging economic conditions, but were

unable to obtain estimates for such a hypothesis. Migrants on Family visas also have a negative effect on hires of New Zealanders as a whole, with the effect being stronger for beneficiary hires. Other findings were that migrants on International Student visas have positive effects on new hires of youth and beneficiaries while migrants on Study to Work visas have negative effects on youth hires, suggesting that migrants under this visa and youth may be competing for the same jobs.

Immigrants under-perform in the labour market, but the gap closes over time

Controlling for relevant characteristics, such as education and geographical location, Stillman and Maré (2009[30]) find that newly arriving immigrants have on average employment rates and annual incomes that are 20 percentage points and NZD 10 000-15 000 (30-35%) lower, respectively, than for the comparable NZ-born. The shortfall in annual earnings relative to the native-born is comparable to that estimated by Picot and Sweetman (2012[31]) in Canada. For immigrants who gained employment, occupational rank (classified by average wages earned by the NZ-born in each occupation over the entire sample period, 1997-2007) is 5-8% lower and hourly wages are 10-15% lower than for the comparable NZ-born.

However, outcomes generally improve over time. After around 15 years in New Zealand, employment rates for immigrants are close to those for the comparable NZ-born and the income difference has halved for men and vanished for women. For employed immigrants, occupational rank has almost converged with that for the comparable NZ-born and the relative wage disadvantage has fallen to 5% for women but remains around 10-15% for men. Nevertheless, there is much diversity in patterns of labour market adjustment. Immigrants from the Asian region have the most pronounced pattern of initial shortfall in outcomes relative to the comparable native-born while immigrants from the United Kingdom do not experience any shortfall – they have the same outcomes as the NZ-born both initially and over time. Immigrants from the Pacific region, on the other hand, most of whom arrive through family and humanitarian programmes, have poor relative outcomes at the time of arrival with no subsequent improvement. Immigrants with university degrees overcome their entry disadvantage within 10 years, whereas for immigrant men without qualifications, catch-up takes 20 years.

Stillman (2011[32]) extends this analysis by simultaneously considering interactions between immigrant status and ethnicity, and labour market outcomes. He finds that immigrant status, not ethnicity, drives the lower employment rates of immigrants from Asia and the Pacific than of the comparable NZ-born ethnic Europeans. There is little employment gap between NZ-born Asians and NZ-born Europeans but a large one between NZ-born Pasifika and NZ-born Europeans, most of which can be explained by characteristics, such as education (Table 2.8, Panel A). When interpreted with evidence in the paper that immigrants at all levels of education have lower employment rates than equivalent NZ-born, Stillman opines that 'these results are consistent with Asian and Pasifika immigrants having worse job networks or higher reservation wages, perhaps because of different family obligations, less access to informal childcare, or being impacted by labour market discrimination'. Another possibility is that these immigrants have lower effective human capital than the equally educated NZ-born, perhaps because of weaker English language skills.

Table 2.8. Immigrant status drives lower employment rates of immigrants from Asia and the Pacific than the comparable NZ-born but ethnicity underpins the wage gaps

Predicted labour market outcomes for NZ-born and immigrants by ethnicity and gender

Gender	NZ-born European	NZ-born Māori	NZ-born Pasifika	NZ-born Asian	NZ-born Other	Aust.-born European	UK-born European	Other European	Foreign-born Pasifika	Asian-born Asians	Pacific-born Asians	Other Asians	Foreign-born Other
A. Employment rate													
Male	0.91	0.86	0.93	0.86	0.87	0.91	0.91	0.89	0.81	0.79	0.78	0.82	0.78
Female	0.76	0.74	0.74	0.74	0.75	0.71	0.75	0.73	0.66	0.59	0.73	0.71	0.60
Male	Relative to	-0.05	0.01	-0.05	-0.04	0	-0.00	-0.02	-0.11	-0.12	-0.13	-0.09	-0.14
Female	NZ-Euro	-0.02	-0.02	-0.02	-0.01	-0.05	-0.01	-0.03	-0.10	-0.17	-0.03	-0.05	-0.16
Actual. Male	Relative to	-0.14	-0.05	-0.03	-0.05	-0.01	-0.00	-0.01	-0.14	-0.09	-0.04	-0.04	-0.11
Actual Female	NZ-Euro	-0.16	-0.10	0.03	-0.01	-0.04	0.00	0.00	-0.19	-0.14	-0.08	-0.09	-0.18
B. Real hourly wage if employed (geometric mean NZD, per cent difference)													
Male	24.67	21.47	20.79	21.17	25.73	25.86	26.03	24.54	18.17	19.43	21.4	20.66	21.24
Female	19.68	18.71	18.43	18.11	18.49	20.66	20.7	19.77	16.49	16.89	16.21	18.66	18.74
Male	% Relative to	-0.14	-0.17	-0.15	0.04	0.05	0.05	-0.01	-0.31	-0.24	-0.14	-0.18	-0.15
Female	NZ-Euro	-0.05	-0.07	-0.08	-0.06	0.05	0.05	0	-0.18	-0.15	-0.19	-0.05	-0.05
Actual Male	% Relative to	-0.18	-0.18	0.04	0.05	0.09	0.12	0.17	-0.32	-0.08	-0.06	-0.04	-0.06
Actual Female	NZ-Euro	-0.12	-0.04	0.09	0.00	0.06	0.07	0.12	-0.23	-0.01	-0.06	0.03	-0.01

Note: Figures are predicted values from the regression models discussed in the paper using the characteristics of the average immigrant and the appropriate settings for the control variables. The figures for actual differences are copied directly from the appropriate rows in Table 6 of Stillman (2011).
Source: S. Stillman (2011), Labour Market Outcomes for Immigrants and the NZ-born 1997-2009; Macro Economic and Public Policy Resource, Wellington.

For wage gaps, on the other hand, ethnicity, not immigrant status appears to be the dominant factor (Panel B). Maori, Pasifika and Asians have lower wages than individuals with European or Other ethnicity, regardless of whether they are immigrants. For example, controlling for relevant characteristics, NZ-born Asian males have wages that are 15% below their NZ-born European counterparts while for Asian-born Asian males the gap is 24%. Wages for Australian-born Europeans, UK-born Europeans and other-born Europeans are similar to or higher than those for NZ-born Europeans. In light of evidence elsewhere in the paper that it is only less educated immigrants who have lower wages than their NZ-born counterparts, these results suggest that labour market discrimination may play an important role in wage setting among less-educated Maori, Pasifika and Asians in New Zealand. Stillman also notes that other possible explanations are lower quality education, worse job networks and occupational segregation.

Daldy, Poot and Roskruge (2013[33]) investigate workplace discrimination in New Zealand, which is perceived by 6% of workers (Statistics New Zealand, 2009[34]), using multivariate probit modelling techniques to disentangle a range of factors that could influence discrimination, including selection effects that may make groups that are discriminated against less likely to be in employment. They find that for men, only those born in South and Other Asia (predominantly India) perceive more discrimination than the rest of the population whereas for women, this applies to those from Southeast Asia (predominantly the Philippines and Malaysia). For men from North East Asia (predominantly China), discrimination may be reflected in lower employment rates. The authors recommend future research on the extent to which fluency in English reduces discrimination and hence, the

extent to which post-settlement language training could reduce the incidence of discrimination in the workplace.

Selecting immigrants with better labour market integration prospects

Attracting higher-skilled temporary migrants and reducing exploitation

The cornerstone of New Zealand's immigration system is the Essential Skills (ES) temporary work visa, which is for migrants who fill jobs for which no New Zealander or permanent resident is available (OECD, 2014[6]). It is a major route to residence - more than half of immigrants under the Skilled Migrant Category (SMC) had an ES visa at some stage. An elaborate system of labour market tests and exemptions aims to limit the potentially negative impact of ES migrants on the domestic workforce – as noted above, ES migrants have a negative effect on new hires of New Zealanders - while at the same time responding to employer needs.

Changes were made in 2017 to ES visa settings aimed at continuing to enable employers to hire temporary migrant workers where there are genuine shortages, while ensuring that only those likely to be able to transition to residence could stay in New Zealand long term. First, remuneration thresholds were introduced to assess the skill level of jobs offered to ES visa applicants to create high-, mid- and low-skill bands. This is a major improvement for assessing skill levels, as many ANZSCO classifications are outdated; a review of these classifications is underway. Second, lower-skilled ES visas were limited to a maximum duration of three years (after which migrants on them need to spend 12 months outside New Zealand before they can be granted another such visa). Previously, lower skilled migrants had been able to 'roll over' their visas indefinitely as long as a labour market test continued to be met. Third, partners and children of lower-skilled ES visa holders will have to meet the requirements for a visa in their own right.

The government is planning further reforms to the employer-assisted temporary work visa system (i.e., temporary work visas that are issued for a specific employer) and associated labour market tests to ensure that migrants are only recruited for genuine regional skills shortages and to create better connections between the immigration, education/skills and welfare systems as well as to increase expectations for employers to employ and train more New Zealanders. Final decisions on these proposals may be made in 2019. To recruit migrant workers, employers will first have to be accredited, which will require them to demonstrate that their business practices incentivise training and upskilling of New Zealanders and put upward pressure on wages and conditions, amongst other conditions. No labour market test will be required for occupations on new Regional Skills Shortages lists and for highly-skilled jobs paying at least twice the median wage. In sectors with high demand for lower-skilled migrant labour, sector agreements are to be negotiated that will oblige employers to commit to improvements to industry productivity, investment in training and development of domestic workers, or better conditions for both domestic and migrant workers in exchange for access to migrant labour. Regional differentiation in the labour market test is planned to support the alignment of the education/skills, welfare and immigration systems. Officials are working on how this alignment could best be achieved. These reforms and increases in the salary thresholds for mid-skilled- and high-skilled temporary migrants are expected to reduce employers' reliance on lower-skilled immigration over time.

Recent changes were made to student visa settings to make clear that studying in New Zealand is not a pathway to residence for students with low levels of education attainment.

The duration of Post-Study Work (PSW) visas, which allow international-student graduates to work in New Zealand, are now differentiated by level of study. Those with university degree level qualifications or higher are eligible for three-year visas and lower-level students are now only eligible for one-year visas. The higher remuneration thresholds introduced for residence (see below) reinforce the message that international students from lower-quality tertiary programmes and/or without advanced English language skills will have difficulty obtaining residence. International students' chances of gaining residence would also be enhanced by providing them with more information about labour market needs and opportunities in New Zealand as few of them seem to go into fields in high demand (OECD, 2014[6]). In particular, too many study management and commerce, where they earn considerably less than comparable NZ-born counterparts, and too few enter science, technology, engineering and mathematics fields, where earnings are higher and, in the health field, higher than for the comparable NZ-born (Park, 2017[35]).

There have been reports of exploitation of temporary migrants on work visas linked to individual employers, despite laws against exploitation. To reduce such exploitation, the government increased the number of Labour Inspectors through Budget 2018 and recently ended the link between PSWs and a sponsoring employer – such visas are now open. It also initiated a review of the problem that includes in-depth policy analysis, independent commissioned research and a consultation group to hear the voices of migrants, business, unions, international students, the legal profession and community advocates. The more intense employer checks envisaged in the planned employer-assisted temporary work visa system may help to reduce exploitation. Making it easier for workers on such visas to change employers could also help by reducing opportunities for exploitation.

The points system for skilled immigrants has been realigned to emphasise characteristics associated with better labour market outcomes

The points system for the Skilled Migrant Category (SMC) was adjusted in 2017 to put more emphasis on characteristics associated with better labour market outcomes. The minimum number of points for automatic selection from the Expression of Interest pool was increased, remuneration thresholds were introduced as an additional means of defining skilled employment, and more points were awarded for skilled work experience, some recognised postgraduate qualifications and applicants aged 30-39 years. The government decided not to award additional points for English language skills beyond the minimum required level (International English Language Testing System level 6.5 on a 1-9 scale, corresponding to a competent to good user). However, evidence from New Zealand (Grangier, Hodgson and McLeod, 2012[36]) and other countries (e.g., Picot and Sweetman (2012[31]) for Canada) shows that better mastery of the host country language is associated with better labour market outcomes (OECD, 2014[6]). At the same time, there does not seem to be a strong case for awarding additional points for NZ qualifications as they are not more highly rewarded in the labour market than foreign ones (Grangier, Hodgson and McLeod, 2012[36]), although NZ-qualified immigrants are less likely to re-emigrate than other immigrants.

The New Zealand Qualifications authority is expanding referencing of foreign qualifications from English-speaking countries to 50 countries, including the European Union. However, occupational councils set qualification requirements for regulated occupations inconsistently. Highly skilled health sector professionals frequently have difficulty being able to practise in New Zealand.

The government supports an extensive array of immigrant settlement programmes

The *New Zealand Migrant Settlement and Integration Strategy (the Strategy)*, which came into force in 2014, aims to settle and integrate migrants so that they 'make New Zealand their home, participate fully and contribute to all aspects of NZ life'. The government provides tailored information and services to migrants to support positive outcomes in each of the *Strategy's* five target areas: employment; education and training; English language; inclusion; and health and well-being. During 2017/18, the Ministry of Business, Innovation and Employment (MBIE) worked with the Interagency Reference Group to develop and implement a new and consistent approach across agencies to ongoing outcomes evaluation and reporting for integration programmes/services. The objectives of the new approach are to support the alignment of reporting on the effectiveness of services, strengthen collaborative oversight of service delivery and help to inform future decision-making on funding allocations.

Improving labour market outcomes for spouses/partners of skilled immigrants and for former international students who have graduated is a priority

The *Strategy* identifies two groups in particular that may need help to find employment that makes good use of their skills: spouses/partners of principal skilled applicants (referred to as secondary skilled applicants), only 45% of whom were employed in jobs that matched skills and qualifications in 2016, compared with 81% for principal applicants; and international student graduates with a Bachelor's level degree or above. The government has given priority to these groups in its *Work Connect* programme. This programme, which is an employment service for migrants first piloted in Auckland in 2016, provides them with career management competencies to help them find, secure and remain in employment. Participants who complete the programme should be able to understand and promote their skills, experience and qualifications in a NZ context. Preliminary findings from the 2016/17 evaluation show that it is meeting its targets and the needs of most clients. *Work Connect* was consolidated in Auckland and expanded to the other main centres in 2017/18.

The government also sponsors Regional Skills Matching programmes, again with skilled migrants, skilled migrant's partners and international student graduates (with a Bachelor's level degree and above) as priority groups. These programmes build connectivity between priority job-seeking migrants and employers who need their skills. Each programme provides face-to-face and/or online assistance to migrants, and advice and support to employers who have registered with the service. Three quarters of migrants who benefited from these services gained employment appropriate to their skill level and four fifths of employers using the service reported being able to find appropriate potential employees. The Auckland Chamber of Commerce's *New Kiwis* website was particularly successful, accounting for around 60% of employment placements. It uses CVs without names to reduce discrimination.

Mentoring and bridge programmes could help improve labour market outcomes

These programmes largely provide placement services, which in New Zealand are otherwise extremely limited, being restricted to welfare beneficiaries. They could usefully be complemented by mentoring programmes, which have proven to be a promising way to overcome immigrants' underrepresentation in high-wage jobs (Skuterud and Su (2012[37]) discuss this problem for Canada). Such programmes, which help currently employed skilled immigrant workers meet people in their profession, potentially integrating them in

job-search networks, provide profession-specific language skills as well as literacy and soft skills specific to the host country workplaces. In Canada, the programmes operated by the Toronto Region Immigrant Employment Council (TRIEC) have been particularly successful: three-quarters of immigrant professionals using their programmes find a job in their field within a year. The success has been such that the model has been exported to other Canadian cities and Australia. The main constraint to running these programmes is finding people who can take the time to mentor.

The government should also expand bridge programmes, which combine advanced language training specific to an immigrant's field and courses needed to bring credentials up to host country standards in regulated occupations. In Canada, these programmes have been very important in the health-care sector, which has many immigrant physicians but a high failure rate (60%) in the licensing test. Mentoring programmes would make bridge programmes still more effective.

English language programmes could be more effective

A related issue to the absence of bridge programmes is that the government does not support occupationally-based language courses. Yet these can be very helpful in equipping immigrants with the advanced English-language skills needed to find and retain high-skilled employment that corresponds to their education level. In Canada, clients who use Immigration, Refugees and Citizenship Canada (IRCC)-funded occupation-specific language training are the most likely to improve their English language skills by at least one Canadian Language Benchmark and require the least time to do so (OECD, 2018[26]). Warman et al. (2015[38]) observe higher earnings for immigrants in Canada who report educational training preparatory to a licensed occupation, especially for immigrants with advanced English language skills. Expanding access to occupation-specific classes, which are often held in the evening, may be particularly beneficial for refugees, who cannot afford to delay working for years while they learn English for daily needs.

Indicators measuring migrant outcomes related to English-language competency show room for improvement. Only two-thirds of immigrants required to pre-pay English for Speakers of Other Languages (ESOL) courses take them up. To increase this share, Immigration New Zealand and the Tertiary Education Commission (TEC) have developed an online tool to help migrants find an English language class. The government should also consider giving immigrants the option of paying a bond that they recover if they demonstrate the required level of English-language competency (OECD, 2014[6]). Such an approach would leave immigrants free to decide how best to reach the required level.

Another issue concerns support for ESOL students in schools. These students are at a considerable disadvantage in learning relative to native English speakers. To help overcome this disadvantage, ESOL funding is available for immigrant and refugee background students for up to five years and for NZ-born students of migrant or refugee parents for up to three years in years zero to four of schooling. These interventions have been effective - students who have had up to the maximum ESOL funding entitlement have a National Certificate of Educational Achievement (NCEA) level 2 (normally achieved in year 12 of schooling) or above attainment rate that is higher than the average for all school leavers. However, teachers receive little training for teaching linguistically diverse students (Green, 2016[39]), despite there being specific post-graduate qualifications for teaching ESOL students and funding for teachers to undertake these studies, albeit in their own time. Undertaking such studies would be more attractive if funding were provided for teachers to do so in work time. It would also help if a curriculum to guide teaching of ESOL students

were developed. Homework centres at schools could also assist many of these students, as well those from socio-economically disadvantaged backgrounds, to advance academically.

Families and ethnic communities could facilitate the academic success of ESOL learners by contributing to the maintenance of their first language. Evidence from the United States and the United Kingdom suggests this is very important for mastery of the host country language – children who can read and write in their first language quickly adjust to another (Green, 2016[39]). A challenge in New Zealand is that ethnic communities are not particularly concentrated geographically, either between or within cities; while this lack of concentration is a disadvantage for building bonding social capital, it could help build bridging social capital.

Programmes to support immigrant inclusion and counter racism are working well

The *Strategy* includes *Welcoming Communities*, which aims to help immigrants to integrate well in New Zealand and encourages local communities to be more welcoming of newcomers. This programme is part of a global welcoming network that includes *Welcoming Cities Australia*, *Welcoming America* and *Welcoming International*. In contrast to previous initiatives, which focused primarily on newcomers and their families, *Welcoming Communities* seeks to equip and involve local residents in welcoming activities. The *Welcoming Communities Standard* provides local councils and communities with a benchmark for success in the following areas: inclusive leadership; welcoming communications; equitable access; connected and inclusive communities; economic development, business and employment; civic engagement and participation, welcoming public spaces; and culture and identity. Early outcomes from the programme's interim evaluation report show that:

- Stronger links are forming with the communities piloting the programme – community engagement is growing;
- Local government councils are taking a more visible leadership role in promoting diversity and inclusion;
- There has been an explicit shift in the communities from expecting newcomers to fit in to locals taking a welcoming role; and
- There is a positive change in community awareness of diversity and inclusion.

Local/Regional Settlement Networks also support integration. All regions have a Network, where settlement stakeholders meet regularly to collaborate, interact on issues, exchange information and develop useful contacts to strengthen migrant settlement and retention. Using the *Strategy*, Relationship Managers from Immigration New Zealand inform networks on settlement approaches and encourage activities at the local level. Findings from the May 2018 Stakeholder Research Survey monitoring the value of these Relationship Managers strongly support their role in facilitating networks to build closer working relationships between regional settlement stakeholders.

The *Strategy* also includes the *Tackling Casual Racism* campaign, which is led by the Human Rights Commission and aims to create a culture in which racist and discriminatory attitudes and behaviours are unacceptable for most New Zealanders. The campaign aims to raise awareness of racism, create attitudes that are more positive to growing diversity and ensure that those who experience racism know where they can turn for help. Most people aware of the campaign agreed that it made them more aware of racism in New Zealand and

that they had taken some action to reduce it, most commonly reflecting on their own views or behaviours. The focus in 2018/19 will be on helping employers to reduce racism in the workplace.

FINDINGS (main findings in bold)	RECOMMENDATIONS (key recommendations in bold)
Attracting higher skilled temporary migrants and reducing exploitation	
The employer-assisted temporary work visa system is not limiting recruitment of migrants to resolving genuine skills and labour shortages, is attracting too many low-skilled migrants and may be weakening incentives for employers to employ and train New Zealanders.	**Require employers to be accredited before they can recruit migrant labour.** **Revise job checks to ensure that migrant labour is only recruited where there are genuine shortages.** **Align the immigration, education and welfare systems to encourage training and employment of New Zealanders.**
Some migrants on Essential Skills visas are victims of exploitation. A review is underway to find effective and sustainable solutions.	**Make it easier for migrants on employer-assisted temporary work visas to modify their visa so that they can more easily change their employer.**
Few international students study in fields in high labour market demand, reducing their chances of obtaining residence.	Provide international students with more information about labour market demand in New Zealand.
Strengthening immigrant integration and settlement	
Integration programmes help immigrants to close the earnings gap with the comparable NZ-born population but need to be taken further.	**Complement Regional Skills Matching Programmes by mentoring and bridge programmes.**
Only two thirds of immigrants required to pre-pay English for speakers of other languages (ESOL) take these courses up. They may not the best way for all concerned to improve their English language competence.	Improve information on ESOL courses by translating it into the most commonly used languages of ESOL funded learners and make these translations available on the Internet. Give immigrants concerned the option of posting a bond that they recover if they demonstrate the required level of English language competency instead of pre-paying courses.
Teachers receive little training for teaching ESOL school students. Study towards post-graduate qualifications in teaching ESOL students must be done in teachers' own time. There is no curriculum to guide teaching of ESOL students.	Provide funding for teachers to undertake post-graduate studies in teaching ESOL school students during work time. Develop a curriculum to guide teaching of ESOL students.

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Chapter 3. Improving well-being through better housing policy

New Zealand's housing supply has not kept pace with rising demand, including from net immigration. Affordability has worsened, particularly for low-income renters. Government action is underway to allow new housing through initiatives such as the Urban Growth Agenda, KiwiBuild and the Housing and Urban Development Authority, but further steps are needed to improve well-being. Clear overarching principles for sustainable urban development and rationalisation of strict regulatory containment policies would allow the planning system to better respond to demand for land. Incentives for local governments to accommodate growth could be increased by giving them access to additional revenue linked to local development. More user charging and targeted rates would also help to fund infrastructure required to service new housing. Government delivery of affordable housing through KiwiBuild should be re-focused towards enabling the supply of land to developers, supporting development of affordable rental housing and further expanding social housing in areas facing shortages.

Housing is important for well-being (section 3.1). Low supply responsiveness, low interest rates and strong population growth due to migration (Chapter 2) have contributed to rapidly increasing house prices in New Zealand. Affordability is now poor by international comparison, which is a key comparative well-being weakness (Chapter 1). Low-income renters have been severely affected (section 3.2). Policy measures are recommended to improve well-being, with a focus on increasing housing supply responsiveness and outcomes for low-income renters (sections 3.3 to 3.5). Macro-prudential restrictions imposed by the Reserve Bank to protect financial stability also affect affordability (see Key Policy Insights).

Housing is an important determinant of well-being

Apart from meeting the basic need for shelter, housing provides a foundation for family and social stability, facilitates social inclusion and contributes to health and educational outcomes, access to services and a productive workforce. How land is used for housing shapes the immediate environment as well as transport and resource use.

International research shows a connection between housing satisfaction and life satisfaction, self-esteem and perceived sense of control (Coates, Anand and Norris, 2015[1]) as well as a link between physical housing condition and subjective well-being (Clapham, Foye and Christian, 2017[2]). Living in poor-quality or overcrowded housing is strongly correlated with a range of health problems including respiratory conditions, exposure to toxic substances and injuries (Rohe and Lindblad, 2014[3]). Adults who experienced housing deprivation when they were younger remain more likely to suffer from ill health (Marsh et al., 2000[4]) and inadequate housing adversely affects children's educational outcomes (Cunningham and Macdonald, 2012[5]). Residential segregation may cut off segments of the population from opportunities to participate in societal progress (OECD, 2016[6]). Unaffordable housing can trigger various forms of deprivation, such as poor nutrition, and is associated with other trade-offs that can harm health (Pollack, Griffin and Lynch, 2010[7]). Increasing property prices benefit owners, who tend to be wealthier, at the expense of renters.

Access to good-quality affordable housing is therefore a means to promote social policy goals that include prevention of poverty and social exclusion, better access to health, education and social capital, and labour market inclusion. Reflecting its importance for well-being, housing outcomes are one of twelve indicator topics under the New Zealand Living Standards Framework (Chapter 1). In addition to its distributional consequences, housing also affects other indicators, notably the environment, health, income and consumption, jobs and earnings, safety, social connections and subjective well-being. More evidence would be needed to evaluate the incremental effect of housing policy reform on the full range of well-being indicators. Analysis of the effects on subjective well-being of easing supply constraints and increasing security of tenure for renters would be particularly valuable to complement the Social Investment Agency (2018[8]) study of social housing, which exploited the rich and innovative Integrated Data Infrastructure database available to NZ-based researchers.

Evidence is mixed on the well-being benefits of owning rather than renting (Clapham, Foye and Christian, 2017[2]). Despite a correlation, there is a lack of convincing evidence that homeownership causes better health, and benefits need to be weighed against the potential for financial obligations to cause greater stress. Labour mobility may be lower and thus unemployment higher among owner-occupants than renters (Oswald, 1996[9]; Caldera Sánchez and Andrews, 2011[10]). Evidence is also mixed on the effects of homeownership

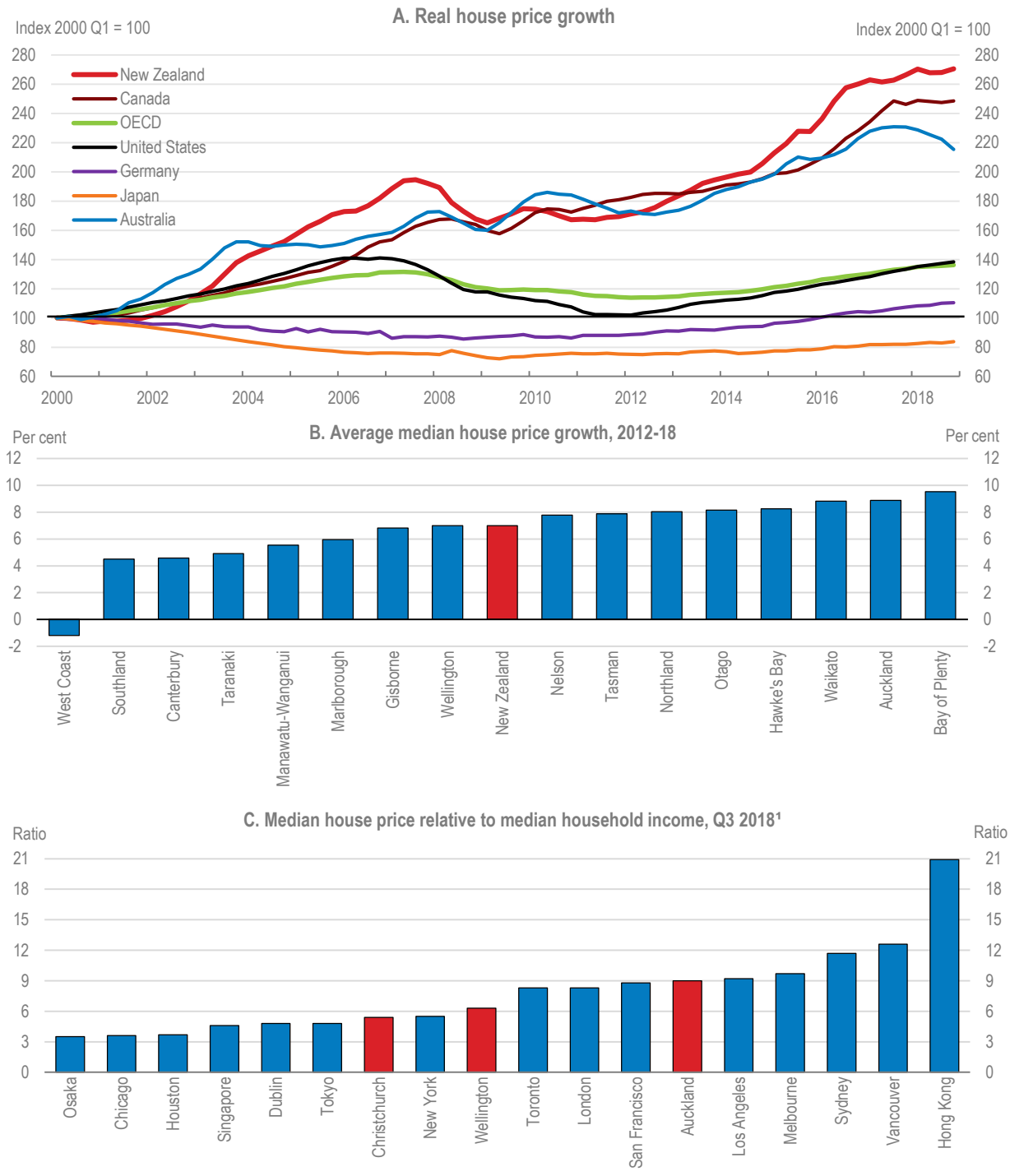
on children's educational outcomes, with some earlier studies possibly mistaking selection differences in who becomes a homeowner with the effect of homeownership itself (Holupka and Newman, 2012[11]). Homeownership is one way to save for retirement and provide protection against rent increases, but can divert households from other forms of wealth-building (Salvi del Pero et al., 2016[12]) and the evidence that home ownership is a superior vehicle for long-term wealth accumulation is mixed (OECD, 2011[13]).

Housing affordability has worsened

House prices in New Zealand have soared, outstripping income growth (Figure 3.1, panel A). Ratios of house prices to incomes and to rents now far exceed their long-term averages. Prices have risen most in Auckland (panel B), where the ratio of median prices to incomes is now comparable to or larger than in many much larger foreign cities (panel C). Average prices have been largely flat in Auckland since late 2016, but have continued to increase elsewhere in New Zealand.

Housing costs are a higher share of income than in most OECD countries, though data issues mean New Zealand's exact ranking is unclear. National accounts data indicate that New Zealanders spend the highest share of income on housing among OECD countries (Figure 3.2, panel A). These data incorporate imputed estimates of rental prices for owner-occupied housing, which are biased upward because rental properties used as a proxy are not stratified by location, giving a higher weight to Auckland where rental properties are both more common and more expensive. A sensitivity test, involving a 20% reduction in imputed rents, would still see New Zealand among the top few countries for housing costs, although no longer an outlier. Actual expenditure on housing appears more internationally typical (panel B), but in this case is biased downward because a gross rather than disposable measure of income is used. The size of this bias is considerable, as the gap between gross and disposable income is between 6% and 23% at the average wage (which is close to the median household income for renters) depending on family size and structure (OECD, 2018[14]). Differences in the types of mortgages available and therefore repayment schedules also affect cross-country comparability of actual expenditure on housing.

Figure 3.1. House price growth



1. For Osaka and Tokyo, data refer to Q3 2017.

Source: OECD, *Economic Outlook database;* Real Estate Institute of New Zealand; *Demographia (2019), 15th Annual Demographia International Housing Affordability Survey: 2019,* http://www.demographia.com/dhi2019.pdf.

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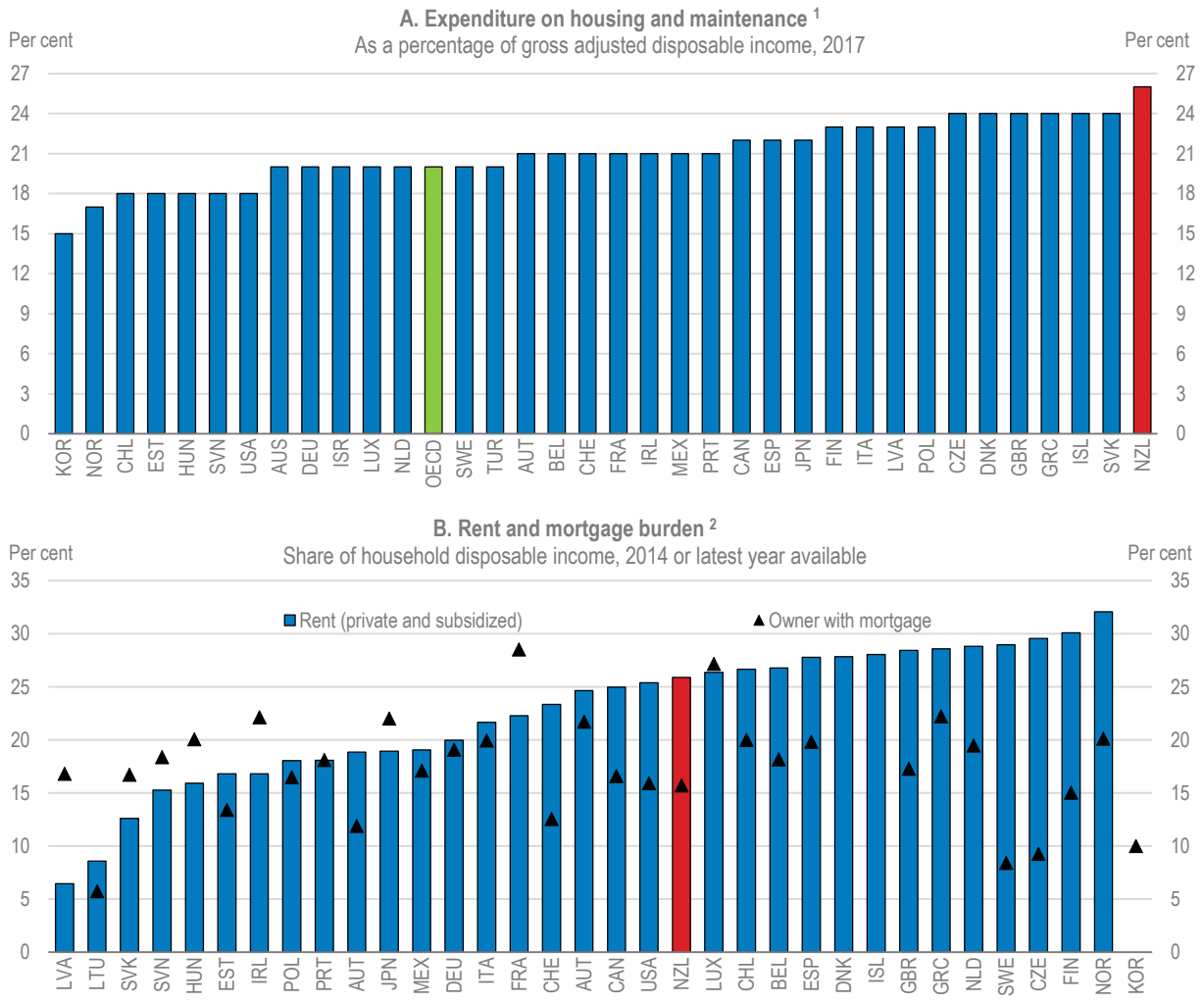
Figure 3.2. Housing costs for households



1. Includes actual and imputed rents for housing, expenditure on furnishings and equipment, maintenance and repair of the dwelling. Imputed rents are likely to be biased upward for New Zealand because rental properties used as a proxy are not stratified by location, giving a higher weight to Auckland where rental properties are both more common and more expensive.
2. Median of the mortgage burden (principal repayment and interest payments) or rent burden (private market and subsidized rent). In Chile, Mexico, New Zealand, Korea and the United States gross income instead of disposable income is used due to data limitations.
Source: OECD (2017), *How's Life?* and OECD, *Housing Affordability Database*.

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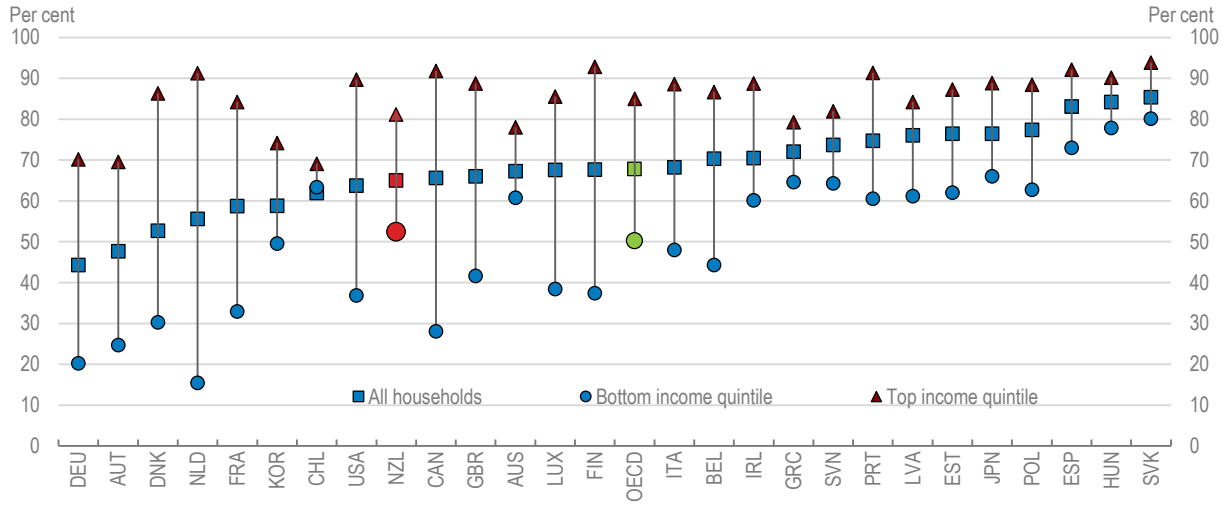
Low-income renters have been severely affected

Around half of people with low incomes own their own home (Figure 3.3). For owner-occupiers, low interest rates have contributed to price growth but also reducing financing cost, so that affordability remains better than immediately preceding the global financial crisis, even in Auckland[1] (Figure 3.4). Affordability could deteriorate rapidly, however, if interest rates were to rise from recent record lows as around two-thirds of outstanding mortgage balances are scheduled to be re-priced within the next two years.

Figure 3.3. The homeownership rate is just below the OECD average



Source: OECD, *Wealth Distribution database (WDD)*.

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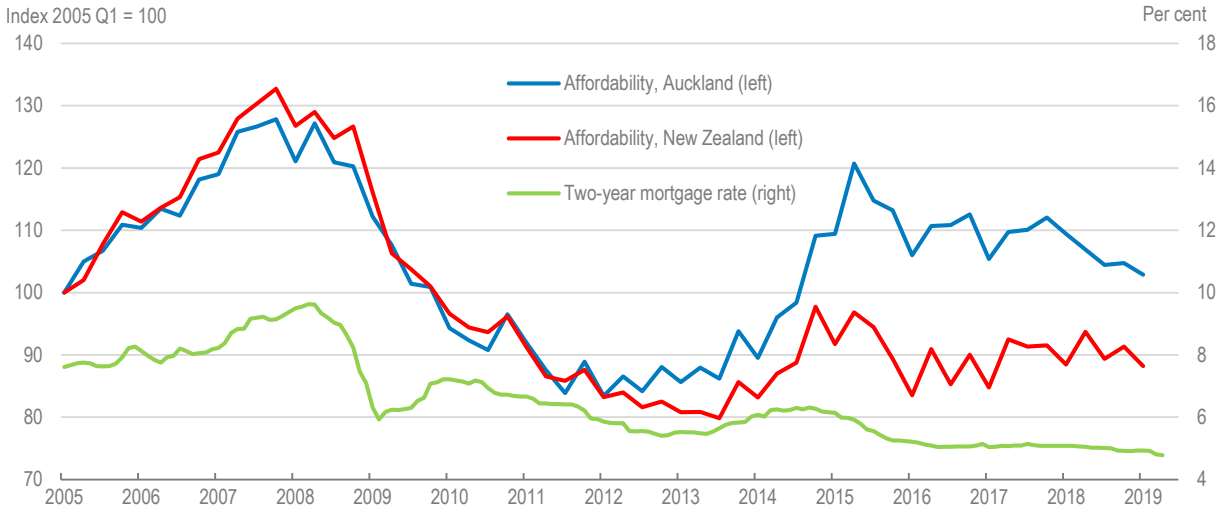
Figure 3.4. Housing affordability for owners has been supported by low interest rates



Note: The affordability index defined by the Massey University Real Estate Analysis Unit takes the ratio of the weighted mortgage interest rate as a percentage of median selling price to the average wage. The lower the index, the more affordable the housing.
Source: Massey University Real Estate Analysis Unit, *Home Affordability Report,* various quarterly reports, http://www.massey.ac.nz/massey/learning/colleges/college-business/school-of-economics-and-finance/research/mureau/mureau_home.cfm.

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The burden of high housing costs has fallen disproportionately on those with lower incomes, with the majority of low-income renters spending more than 40% of their gross income on housing (Figure 32.). Housing costs averaged 45% of income for the bottom fifth of households aged under 65 in 2017, up from under 40% in the early 2000s and 23%

in 1990 (Perry, 2018[15]). Around one in 10 New Zealanders live in a crowded household, just above the median for OECD countries (Statistics NZ, 2018[16]; OECD, 2017[17]).

Māori have poor housing outcomes

Compared with people from European backgrounds, Māori are four times as likely to live in crowded homes and around five times as likely to be homeless (Statistics NZ, 2018[16]; Twyford, 2018[18]; Amore, 2016[19]). People from Pacific or Asian backgrounds also suffer high rates of crowding and homelessness. The government has recently established a dedicated Minister and unit for Māori Housing and is investigating initiatives to reduce barriers to building on Māori land. These include difficulties in using Māori land as security for finance, zoning restrictions, getting agreement from shareholders in land blocks and poorly coordinated or communicated government responses (NZ Productivity Commission, 2012[20]). Analysis across OECD countries with substantial indigenous populations highlights the need to recognise indigenous land rights and facilitate economic development through measures such as transferable long-term leasing of land parcels and support for land consolidation that overcomes problems of fragmentation (McDonald, forthcoming[21]).

Housing quality is low

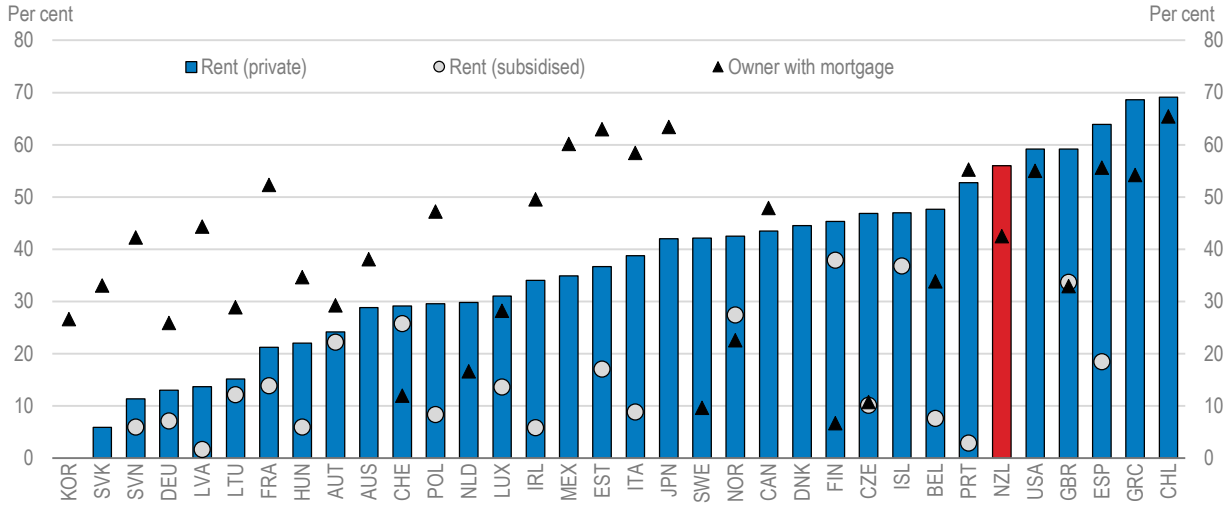
About 30% of NZ homes are poorly insulated and a quarter of homeowners and half of renters report problems with dampness or mould (OECD, 2017[22]). Around 7% of adults report a need for immediate repairs and maintenance on the property they live in, with rental houses twice as likely to be poorly maintained (BRANZ, 2017[23]; Treasury, 2018[24]). Cold, leaky and damp wooden houses are common, partly owing to the abundance of forests and the historic risk of building masonry and stone buildings on a fault line. New Zealand has the highest rate of respiratory illnesses in the OECD (one in four people suffer from asthma), and 40 000 hospital admissions per year could be avoided (IEA, 2017[25]). Prevention and remediation of indoor dampness and mould are likely to reduce health risks and thereby improve well-being (Teasgood et al., 2017[26]).

A number of factors have contributed to unaffordability

Strong demand in the presence of weak supply responsiveness has been responsible for rapid price escalation. Increasing incomes have pushed up demand but can only explain a small part of price growth as the house-price-to-income ratio has risen sharply (Figure 3.6, panel A). As noted above, mortgage interest rates are low, which combined with greater access to credit has increased demand for owner-occupied and investment properties. Non-resident buyers have also contributed to demand for NZ housing, although their share of overall purchases (3%) is small (Statistics NZ, 2018[27]). High immigration and relatively low net outward migration of NZ citizens has led to strong net immigration recently (Chapter 2), boosting demand for housing. A synthesis of evidence from eight OECD countries suggests that a 1% increase in the population of a city due to immigration can be expected to raise rents by 0.5% to 1% and house prices by twice as much (Cochrane and Poot, forthcoming[28]). Analysis of New Zealand between 1962 and 2006 indicates a larger, 10% increase in house prices from a 1% increase in population, with a key explanation being the inability of NZ housing construction to rapidly respond to new demand from immigration (Coleman and Landon-Lane, 2007[29]). Another possible explanation – immigration pushing up house prices through higher expectations about house prices – is also related to weak supply responsiveness as the supply response conditions expectations and thus speculative demand.

Figure 3.5. Most low-income renters face very high housing costs

Share of population in the bottom quintile of the income distribution spending more than 40% of disposable income on mortgage and rent, by tenure, 2014 or latest year available



Note: In Chile, Mexico, New Zealand, Korea and the United States gross income instead of disposable income is used due to data limitations.

Source: OECD, *Housing Affordability database,* Figure HC1.2.3, http://www.oecd.org/social/affordable-housing-database.htm.

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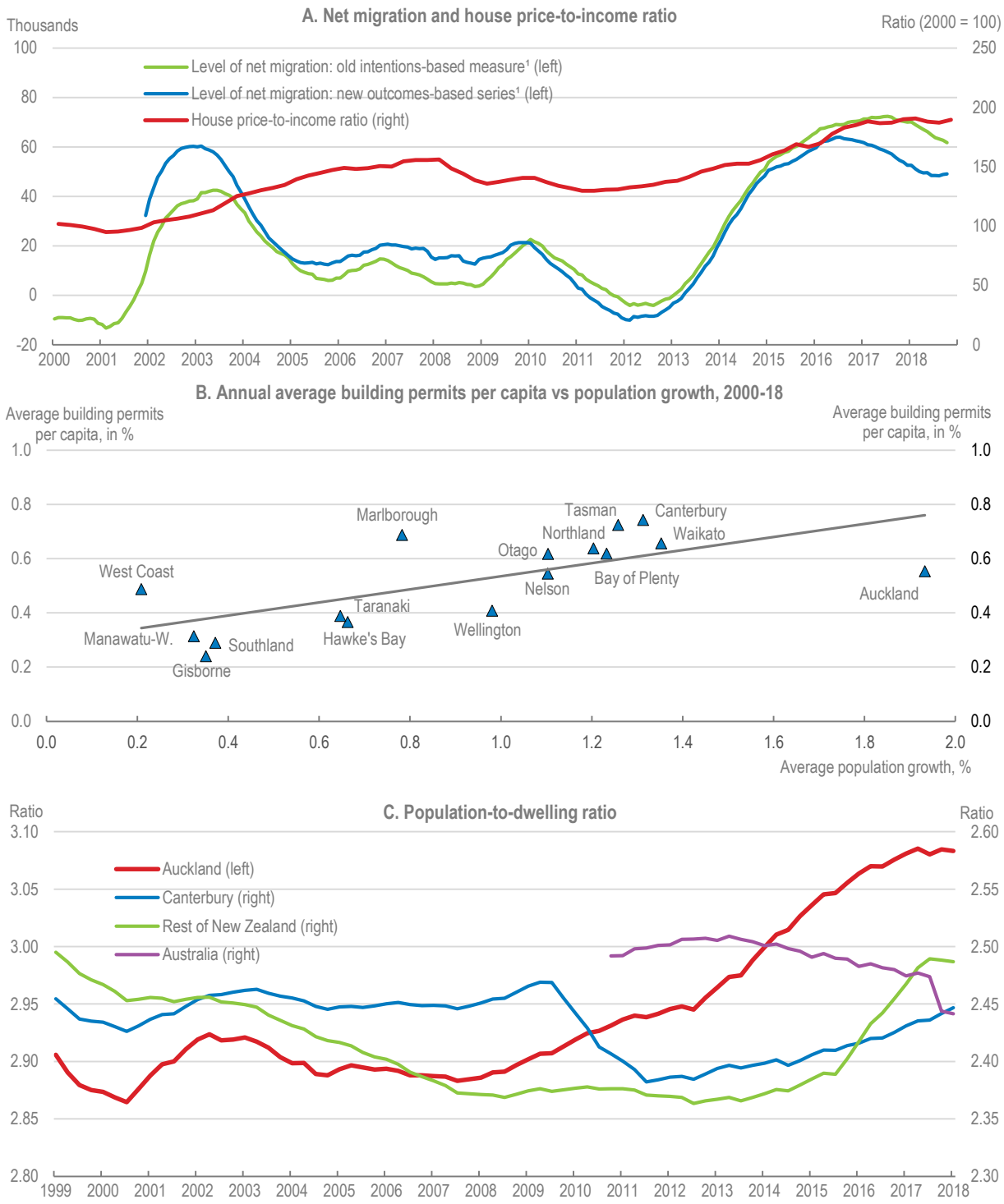
The supply response has been constrained by restrictive and complex land-use planning, infrastructure shortages and insufficient growth in construction-sector capacity (OECD, 2017[30]). In aggregate, New Zealand has intermediate housing supply responsiveness, higher than in many European countries but well below that in North America and some Nordic countries (Caldera Sánchez and Johansson, 2011[31]). Supply has failed to keep up with rapid population growth in Auckland in particular (Figure 3.6, Panel B). The shortage in Auckland is estimated at around 40 000 to 55 000 dwellings (Coleman and Karagedikli, 2018[32]). Unlike in Australia, the population-to-dwelling ratio has increased despite an ageing population that would, all else equal, be expected to reduce the average number of people per household (Panel C). The important role of planning restrictions in high house prices is evident from the nearly nine times ratio that existed between the price of land just inside and outside Auckland's (former) Metropolitan Urban Limit (NZ Productivity Commission, 2012[20]). Across all five of New Zealand's largest cities and after correcting for other factors, land zoned for urban use close to the rural-urban boundary is valued at least twice as highly as similar rural land (MHUD, 2018[33]). One study estimates that land use constraints could be responsible for 56% of the price of an Auckland home, based on the difference in the value of land depending whether it can have a house on it (Lees, 2017[34]). Unresponsive housing supply has been identified as the most important policy factor holding back NZ labour productivity due to skills mismatches (Adalet McGowan and Andrews, 2017[35]).

Figure 3.6. Factors driving house price growth



1. Cumulative data for the past four quarters. Before June 2014, the outcomes-based series has been extended using Stats NZ's discontinued experimental series.
Source: Stats NZ; Australian Bureau of Statistics; OECD, *Economic Outlook database*; Reserve Bank of New Zealand (2015), *Financial Stability Report*, May, Figure 4.3 updated.

StatLink https://doi.org/10.1787/888933949651

Supply constraints have disproportionately affected construction of affordable housing. Land prices have risen more than construction costs, encouraging the construction of high-end housing: as of 2014, only around 17% of newly built houses were valued below the median for the existing stock, down from half in 1990 (NZ Productivity Commission, 2015[36]). Upward pressure on land prices on Auckland's urban fringe has had a much larger impact on prices at the lower end of the market.

The remainder of this chapter focuses on long-term policy changes that would enhance well-being by improving housing affordability. New Zealand has a number of policies supporting affordable housing, with the majority favouring home ownership (Table 3.2). The importance of distributional outcomes for societal well-being (due, in part, to diminishing marginal benefits as income increases) points to targeting support towards low-income renters. Targeting those with low incomes would assist the government with its priority to reduce child poverty. Increasing housing supply elasticity, while protecting environmental outcomes, is critical to increase affordability for both owner-occupiers and renters and to improve distributional outcomes. Increasing supply responsiveness also offers a potential boost to productivity that is estimated to more than offset negative effects on productivity from recommendations that increase tenure security – and thus serve distributional goals – but could constrain residential mobility (Box 3.1).

Box 3.1. Simulation of the potential impact of structural reforms

The potential impact of some of the reforms proposed in this chapter can be gauged using simulations based on historical relationships between public policy and labour productivity across OECD countries. The effect of housing policies on labour productivity is estimated based on their effect on residential mobility, which contributes to reducing labour market skills mismatches. The simulations do not account for other channels through which housing policies might affect growth, abstract from detail in the policy recommendations and do not reflect New Zealand's particular institutional settings.

Table 3.1. Potential long-term impact of housing market policies on labour productivity

	Change in labour productivity
	Per cent
(1) Increase responsiveness of housing supply	1.1
(2) Constrain rent increases for sitting tenants based on market rates	-0.4
(3) Increase security of tenure for renters	-0.2
Total	**0.5**

Note: Illustrative policy changes assumed for each measure are as follows: (1) The gap with the leading OECD country (the United States) is halved. (2) The indicator of rent control is increased by 0.4 units (3) The indicator of tenant-landlord regulations is increased by 0.5 units.
Source: OECD calculations based on Adalet McGowan, M. and D. Andrews (2017), "Skills mismatch, productivity and policies: Evidence from the second wave of PIAAC", *OECD Economics Department Working Papers*, No. 1403.

Table 3.2. Affordable housing policies in New Zealand

Category	Policy instrument	Targeting
Homeownership subsidies	KiwiSaver HomeStart Grant	Homeowners
	KiwiSaver first-home withdrawal	Homeowners
	Welcome Home Loan	Homeowners
	Kainga Whenua	Māori homeowners
	KiwiBuild	Homeowners
	Non-taxation of imputed rent	Homeowners
	Non-taxation of capital gains	Homeowners
Housing allowances	Accommodation supplement	Tenure neutral
Social rental housing	Income-related rent subsidies	Social renters
	Expansion of social rental stock	Social renters
Rental support and regulation	Non-taxation of capital gains	Landlords/renters
	Tenancy law	Renters

Source: Typology based on Salvi del Pero et al. (2016[12]).

Increasing the responsiveness of housing supply

A lack of national guidance on how local governments should implement the Resources Management Act (the primary land-use legislation) in urban settings and how to reconcile it with planning requirements under the Local Government Act and Land Transport Management Act has led to unnecessarily restrictive and complex land-use regulations (OECD, 2017[22]). Desirable development has been held back, particularly in fast-growing areas, because the planning system under-recognises potential benefits and suffers from a bias towards the status quo (NZ Productivity Commission, 2017[37]). There are examples in other OECD countries of successful reforms that specifically expedite planning in urban areas, such as the 2007 Act Facilitating Planning Projects for Inner Urban Development in Germany.

The National Policy Statement on Urban Development Capacity 2016 (NPS UDC) requires local governments to provide sufficient development capacity, and to enable urban environments to develop and change. The requirement to monitor price efficiency is also valuable, though monitoring published to date does not clearly show differences in land prices across zones. Moreover, the NPS UDC fails to provide principles for sustainable urban development or practical guidance on how to reconcile planning processes under the three major acts. While the NPS UDC calls for local governments to plan sufficient infrastructure provision, councils lack incentives to accommodate growth due to infrastructure funding issues (discussed below). Work underway as part of the central government's Urban Growth Agenda shows promise in rectifying deep-seated urban planning problems through steps to improve infrastructure funding and financing, enable growth (both up and out), define clear principles for quality urban environments and provide a framework for spatial planning (Box 3.2). By seeking to reduce a broad range of barriers to new supply, the Urban Growth Agenda is a substantial step in the right direction, but further detail is needed on specific policy measures and their implementation to assess the Agenda's likely success in achieving its ambitious objectives.

The Auckland Unitary Plan, most of which became operative in late 2016, allows greater densification and some expansion of urban development limits. It represents a major step forward in spatial planning, integrating land use, housing, transport, infrastructure and other urban planning issues. Local opposition to specific development from those with vested interests was managed by frontloading consultation through an independent hearing

panel that took a broader perspective (this has also been successful in Australian cities, notably in Brisbane). There remains scope to increase density in Auckland around light rail investment and, once storm water investment catches up, in single housing zones immediately surrounding the central business district.

Box 3.2. The Urban Growth Agenda

The Urban Growth Agenda (UGA) is a medium- to long-term plan to increase the housing market's capacity to respond to demand, bringing down the high costs of urban land and its development to improve housing affordability. The primary focus is on land and infrastructure markets, where the UGA aims to remove barriers to supply. Through accommodating and managing growth, the UGA also aims to improve choices around the location and type of housing, improve access to employment, education and services, assist greenhouse gas emission reduction and enable quality-built environments while avoiding unnecessary urban sprawl. To achieve these objectives, the UGA consists of five interconnected pillars of work.

1. **Infrastructure funding and financing**: provide a broader range of funding mechanisms for net beneficial bulk and distribution infrastructure; expand local authority borrowing capacity; rebalance development risk from local authorities to the development sector; and develop alternate financing mechanisms such as special purpose vehicles separated from the local authority with debt serviced by revenue from the properties.
2. **Urban planning**: reform planning regulation, methods and practice to allow growth up and out; define clearly what is meant by quality urban environments and ensure that councils consider the positive impacts that developments can have on amenity (through a new National Policy Statement on Urban Development); and facilitate a better understanding of the costs and benefits from urban development.
3. **Spatial planning**: embed within the urban development system a pro-growth spatial planning framework that facilitates better co-ordination of the spatial dimensions of decision making around key issues such as zoning, infrastructure and environmental protection; in the near term, advance partnerships with local government to advance spatial planning.
4. **Transport pricing**: investigate congestion pricing options for Auckland through the joint Auckland and central government project "The Congestion Question"; price the full marginal costs of growth infrastructure; and consider a range of options aimed at a more sustainable and equitable future transport revenue system.
5. **Legislative reform**: ensure that regulatory, institutional and funding settings are collectively supporting the UGA objectives.

Compact urban development offers a number of benefits, with 69% of more than 300 published analyses worldwide finding positive effects (Ahlfeldt et al., 2018[38]). Agglomeration economies generated by cities are an important factor in knowledge diffusion and thus productivity growth, and population density has been a strong predictor of economic performance in European countries (Ahrend and Schumann, 2014[39]). Low-density urban sprawl undermines agglomeration benefits through longer travel times within a city if jobs fail to disperse in line with housing, higher fiscal costs of supplying infrastructure and public services (Adams and Chapman, 2016[40]; Ahlfeldt et al., 2018[38]),

higher transport emissions (though greater use of electric vehicles would reduce this effect) and loss of environmental amenities within and at the borders of urban areas. On the other hand, density can have negative implications for open space preservation, traffic congestion, health and self-reported well-being (Ahlfeldt et al., 2018[38]). Supporting infrastructure and high quality urban design are important to alleviate negative perceptions of density. For example, in Vancouver density is promoted but views of mountains and water are protected. Public parks and green spaces in urban centres are an essential element supporting quality of life in a compact city; physical or visual access to green spaces, water, or natural light has a surprisingly powerful direct impact on subjective wellbeing (O'Donnell et al., 2014[41]).

Population density in Auckland is higher than in Australian and North American cities with similar populations, but lower than in most European equivalents (Demographia, 2018[42]). NZ cities have low levels of public transport infrastructure and use by developed world standards, with nine out of ten commutes in Auckland by car. Recently completed bus lanes and in-progress rail network expansion are expected to deliver considerable efficiency gains through agglomeration benefits and encouraging more suburban dwellers to commute to higher-paying central business district jobs (Hazledine, Donovan and Mak, 2017[43]). Developing effective urban transport networks is important to connect people in disadvantaged communities and expand opportunities for socio-economic mobility (OECD, 2018[44]). An OECD study is currently underway modelling the potential to decarbonise urban mobility in Auckland through land use and transport policies (Tikoudis, Udsholt and Oueslati, forthcoming[45]).

Strict regulatory containment policies such as explicit density limits, minimum lot and apartment sizes and restrictions on multi-dwelling units impede densification, affordability and innovation. Regulation should be better aligned with prevention of the most important external costs. Specifically, external effects on neighbours would be better managed through clearer rules about overshadowing and the bulk and location of buildings (NZ Productivity Commission, 2015[36]). Concerns about increased rainfall runoff due to lower urban permeability would be better addressed more directly through green space requirements, which could be adjusted as stormwater systems are upgraded. Restricting the development of multi-dwelling units through single-use zoning is particularly costly, as it prevents land use from adapting to social and economic changes. Avoiding single-use zoning has facilitated strong residential construction activity in Japan, where there are generally no restrictions on multi-dwelling units and maximum building heights are determined according to a formula that depends on the distance of a building to the adjacent road (OECD, 2017[46]). Increasing the price of on-street parking to reflect its true social cost would remove the need for minimum parking requirements (OECD, 2018[47]), which increase house prices and rents (Lehe, 2018[48]).

More systematic use of pricing mechanisms to internalise external costs would be a better way to shape development. One-off development contributions are levied to recoup infrastructure investment costs, but do not generally reflect the true cost of infrastructure, particularly the higher cost of servicing greenfield investment at the urban fringe. For example, Auckland Council estimates bulk infrastructure costs of roughly NZD 140 000 per dwelling (USD 100 000) for greenfield areas, which far exceeds development contributions (Auckland Council, 2017[49]). Recently phased-out financial contributions should be re-introduced along with clearer principles on their intended use as an economic instrument to offset environmental costs of new development.

Allowing some orderly expansion of urban boundaries can work in conjunction with removal of barriers to densification to ease housing affordability challenges. Providing the option of development up or out – with cost-reflective charging for access to infrastructure services and policy measures to control environmental effects – allows residents to choose the best solution for their own well-being. The outcomes from this choice can be seen in Auckland, where the majority of the increase in building consents following the Unitary Plan has been for brownfield sites where greater density is now allowed (Auckland Council, 2018[50]). In areas of low density, governments need to focus on suitable transport models such as on-demand services and sharing, and encourage interchanges between different transport modes such as park-and-ride facilities. In Finland, for example, the development of multi-modal travel chains has been enabled through reforms to harmonise legislation and open access to data (Finnish Government, 2018[51]). On-demand shared services and their alignment with other policy tools such as pricing, regulation, land-use and infrastructure design have the potential to replace private car trips and thus reduce emissions, congestion and the need for parking space in Auckland, while providing more equitable access to opportunities. Replacing 20% of Auckland car trips with shared mobility services is estimated to deliver a 15% reduction in total distances driven and carbon dioxide emissions (ITF, 2017[52]). Lack of parking availability, under-pricing of parking and poor local connections have held back the success of park-and-ride in Auckland (Tan, 2018[53]).

Land ownership in New Zealand is fragmented, so failure to aggregate small holdings of land tends to push development out to the urban fringe (NZ Productivity Commission, 2015[36]). The establishment of a national housing and urban development authority (Kāinga Ora – Homes and Communities) is a promising initiative that will assist with land amalgamation in specific areas. In addition to taking over Housing New Zealand's role as a public landlord, Kāinga Ora – Homes and Communities will operate in areas with significant redevelopment potential and have the capacity to override planning barriers, plan and build infrastructure, levy charges to cover infrastructure costs and assemble parcels of land for development, including through compulsory acquisition under the Public Works Act. Compulsory acquisition of land for construction of housing is possible in 58% of OECD countries covered by the 2016 Land Use Governance Survey (OECD, 2017[54]) and is valuable as a backstop to avoid the incentive for individual landholders to hold out for above-market compensation. Infrastructure funding issues for local government, as discussed below, are likely to be less of a problem in areas redeveloped by Kāinga Ora, as most costs can be more easily apportioned and passed on to those within the development project area (notwithstanding challenges associated with apportioning costs of upstream bulk infrastructure constraints).

Augmenting infrastructure funding and financing for local government

Councils[2] bear the bulk of infrastructure costs, but have limited ability to recoup costs except through development contributions, user charges, or rates charged to residents. Across the OECD, local governments have been found to respond to such fiscal incentives through the types of planning policies implemented, which can create inefficient land use patterns (OECD, 2017[46]). While in theory growth in New Zealand can pay for itself over a period of time, in practice this proposition comes with significant risk for councils and the financial gain rarely eventuates, particularly where some infrastructure is required in advance of development (Morrison Low, 2017[55]). Financing (where the upfront money comes from) and funding (who eventually pays, for example through taxes or user charges) are both fundamental to any solution. Financing problems are currently more binding as

key high-growth councils are constrained by contractual requirements to meet Local Government Funding Authority borrowing covenants, as well as their own borrowing covenants. The structure and norms of the local government sector worsens this constraint as councils find it difficult to credibly commit to not fully underwrite any special borrowing arrangements outside of general obligations debt, for example if project-specific revenue bonds were issued and linked to a specific infrastructure project. Funding mechanisms are also critical, however, as existing residents have an incentive to oppose development where they are liable for funding.

The problems that councils face in paying for infrastructure are well recognised and a key focus of the Productivity Commission's current inquiry into local government funding and financing. Responses to date have not solved the funding and financing issues. The Housing Infrastructure Fund, for example, provides financing for high growth councils to accelerate infrastructure provision, but in the form of loans that count towards council general obligations debt. Crown Infrastructure Partners Limited was created to help enable project financing without any special public powers. However, this model cannot apply more generally when public infrastructure has significant spill-over benefits that cannot be captured without additional public powers to compel levies.

The Urban Growth Agenda recognises the need for more user charging for transport infrastructure. However, its proposals to rebalance risk from councils to the development sector will only support new supply insofar as developers are well-placed to control risks and target charges for recovery of infrastructure costs. This is most likely to be the case in large greenfield developments without substantial ongoing planning or other regulatory risks.

More user charging would be fairer in terms of 'user pays' and could also reduce infrastructure spending. Direct charging for road use will lead to more efficient use and also help inform where new roads go. The joint Auckland and central government project "The Congestion Question" is a promising initiative, though implementation of user charging will be challenging and thus needs to proceed prudently through policy trials. The national rule that tolls can only be levied on new roads with feasible untolled alternative routes should be removed to facilitate progress. Volumetric charging for water and wastewater should be introduced more widely and in high growth regions should be based on the full long-run marginal cost of supply – short-run marginal cost pricing achieves greater immediate allocative efficiency, but is not dynamically efficient under expanding demand and encourages over-consumption by failing to signal the cost of incremental investment. Auckland is the only area where volumetric charges are routinely applied for water and wastewater. Even there, volumetric charges do not fully reflect long-run marginal costs, requiring an Infrastructure Growth Charge on new customers, which skews recovery of costs towards new users and is significant enough (over NZD 10 000 per unit) to dissuade development. The problem here is not the existence of development contributions to pay for development-specific infrastructure, but the need to charge an additional fee to make up for low volumetric charges: a new unit would incur an Infrastructure Growth Charge whereas increasing water use by the same volume (on a new garden, for example) would not, despite the same expansion of trunk infrastructure requirements. A positive example is Tauranga City Council's introduction of water meters and volumetric charges, which significantly reduced demand for water and allowed infrastructure upgrades to be delayed (NZ Productivity Commission, 2017[37]).

Giving councils access to a tax base linked to local economic activity (such as income or goods and services tax) would improve the fiscal dividends they receive from growth.

Germany is an example of a devolved planning system where central government grants are linked to local population and tax revenue, which incentivises municipalities to allow growth, contributing to more affordable housing (Evans and Hartwich, 2005[56]).

Councils cannot currently apply targeted rates to just the value "uplift" that occurs following new infrastructure development. This barrier should be removed, though implementing value uplift capture can be challenging and lead to vigorous debate about how much of a value change can be ascribed to government actions. In Australia, value uplift charges intended to recover infrastructure costs have often not been sustainable politically (Australian Productivity Commission, 2014[57]). An alternative way to capture increases in land value associated with infrastructure investment would be to shift the base for council rates to unimproved land value (Figueiredo, forthcoming[58]). While some councils already do this, the majority, including those in each of the five largest cities, base rates on capital values. Shifting the base for rates to land value would also encourage development and density, be less damaging to economic growth, and may even be more progressive and thus equitable (NZ Productivity Commission, 2018[59]). Rates should also be extended to developable central government-owned land to encourage development and increase revenue for councils.

Broadening the range of financing options available to councils would also be beneficial. Public-Private Partnerships (PPPs) can offer benefits through access to private technology, innovation and experience managing commercial risks, as well as enhanced incentives to deliver projects on time and within budget. However, costs can include hidden contingent liabilities for government, higher transaction costs and contracting difficulties. Assessing risks and determining where to assign them is a complex task that requires substantial capacity in the procuring agency, which is lacking at the local government level. Project-specific infrastructure bonds, through special purpose vehicles or privately-owned vehicles as part of the proposed role for Kāinga Ora – Homes and Communities, are a viable option for large projects with external ratings and where longer duration finance is needed (OECD, 2015[60]). However, project-specific bonds may have a higher cost of financing if separated from council general obligations debt. Servicing such debt with revenue from the new properties in a development helps ensure that the beneficiaries pay, but is likely to be more complicated in situations (such as brownfield development) where existing residents also gain. Another means to make financing easier would be to relax the requirements for lending from the Local Government Financing Agency, as recent assessments have not identified serious concerns about the overall level of council debt (NZ Productivity Commission, 2018[59]). The new independent New Zealand Infrastructure Commission, Te Waihanga, announced by the national government should be well-placed to support councils in broadening the range of financing sources they draw from.

Reforming the slow and prescriptive building consenting process

As in several other OECD countries including the United Kingdom and Canada, New Zealand uses a system of joint and several liability for building, whereby two or more parties liable for the same loss or damage because of separate wrongful acts can each be held up to 100% liable for the loss. The potential negative consequences were evident during the leaky homes crisis, where councils, often the "last person standing", were held responsible for an average of 45% of adjudicated costs despite their share of responsibility being around half that level. Overall costs to councils between 1992 and 2020 have been estimated at several billion NZ dollars (Price Waterhouse Coopers, 2009[61]). Between 2008 and 2018, building consent authorities are estimated to have faced total payments of NZD

1.1 billion from residential building defect cases, with their burden in analysed cases increased by 170% due to the inability to collect shares from other liable parties (Sapere, 2018[62]). The Law Commission (2014[63]) recommended against moving to proportionate liability due to the risk for consumers of uncollectable shares as well as the difficulty of establishing the appropriate share of responsibility for all parties. However, this analysis failed to fully consider the role of joint and several liability in causing building consent authorities to be excessively risk averse, as highlighted by the NZ Productivity Commission (2012[20]) and more recently by Auckland Council (2018[64]; 2017[65]). Proportionate liability would improve incentives for consenting authorities by better aligning their liability with their responsibility and desired behaviour. Consumers' interests can be protected through other means, such as a strengthened building warranty or insurance scheme.

Left to the market, building insurance needed to complement a system of proportionate liability suffers from adverse selection due to insurers' incomplete information. A number of OECD jurisdictions, including Belgium, France and Israel, have made building insurance mandatory to cover the risk of defects up to 10 years after completion. The Australian state of Victoria, which combines proportionate liability with mandatory insurance for work exceeding AUD 16 000, provides a useful template but also illustrates the importance of monitoring building insurance markets: the market was served by five competing private sector insurers until all but one announced they would cease issuing building insurance and a government statutory authority was forced to step in. While a competitive market for building insurance is preferable, given the small size of the market and inherent risks associated with long-tail liability there may be a need for government-backed insurance that satisfies competitive neutrality. The other valuable lesson is the need to streamline agency responsibility for building insurance (Parliament of Victoria, 2010[66]).

Individual building consent authorities must be satisfied on reasonable grounds that the proposed building work will comply with the building code and have a preference for products and systems known to meet the code. A conservative approach to new products may hamper innovation (Auckland Council, 2017[65]). Building consenting authorities will face further challenges with more construction of pre-fabricated housing, which is one potential technological solution to New Zealand's poor construction industry productivity. Proposed reforms have the potential to increase efficiency through mandatory information requirements for building materials and a regulatory framework for modern methods of construction, including pre-fabrication. If these steps are insufficient, authorities could consider a centralised building materials register that leverages approvals in countries with similar climates and earthquake risks (such as Japan or western Canada and the United States), or reallocating building consenting to a central authority.

Increasing productivity in the construction industry

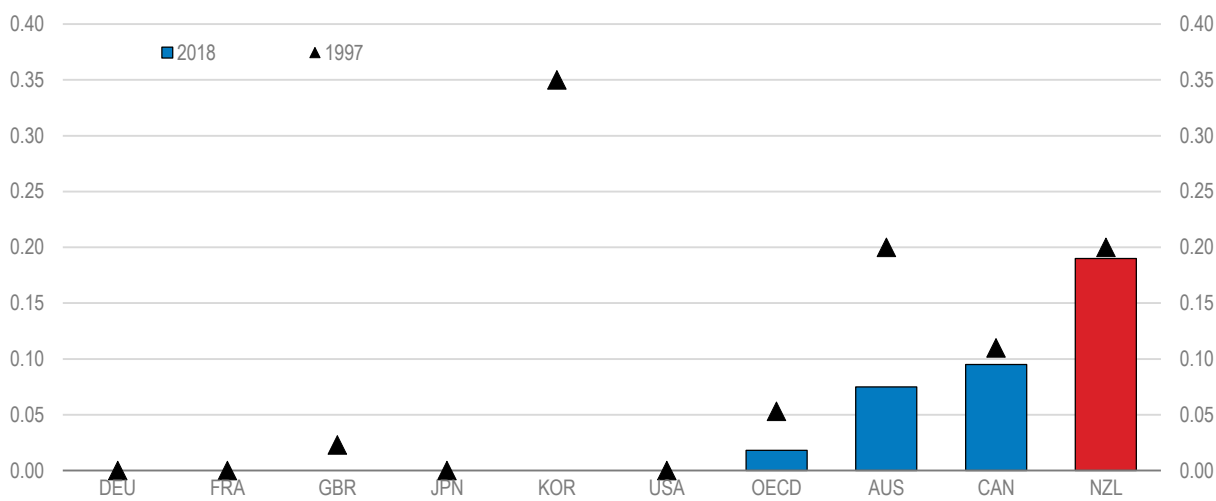
Productivity in the NZ construction industry is low relative to comparable countries, pushing up construction costs. A 10% decrease in construction costs is estimated to reduce long-run house prices by around 8% (Grimes et al., 2013[67]), though the pass-through of construction costs into house prices is lower when supply is inelastic (Evans and Guthrie, 2012[68]). If and when implementation of the Urban Growth Agenda increases the supply of developable land, construction industry efficiency will become even more important. Low productivity in construction largely stems from insufficient competition in specific markets, poor management skills and sluggish adoption of new technology (OECD,

2017[30]). High barriers to foreign direct investment (Figure 3.7) combine with remoteness and small market size to dissuade entry of foreign firms. Entry of foreign firms could promote competition, open up access to global supply chains, as well as bring in much-needed technological, skills and managerial quality transfers. The 2017 *Survey* recommended narrowing screening of foreign investment while continuing to reduce compliance costs and improve predictability, a Commerce Commission market study of the construction industry, and (as subsequently implemented) extending suspension of anti-dumping actions on residential building materials. Since the release of the 2017 *Survey*, the government has launched its Skills Action Plan, which aims to increase productivity through better skill development and matching. The Construction Sector Accord signed in April 2019 aims to strengthen the partnership between government and the industry through measures such as better risk management and allocation, better procurement practices and pipeline management, and improved building regulatory systems and consenting.

A ban on housing purchases by foreign residents passed in August 2018 aims to improve housing affordability, but will also have implications for construction of new housing. Effects on affordability are likely to be small, as only around 3% of home sales are to foreign buyers (Statistics NZ, 2018[27]). The ban risks holding back foreign direct investment and thus construction industry productivity. Compliance costs and uncertainty are now higher for foreign developers (excluding those from Australia and Singapore), as they are required to divest after completion of any development of less than 20 units.

Figure 3.7. Restrictions on foreign direct investment in construction are substantial

Index from 0 (open) to 1 (closed)



Note: The FDI restrictiveness index is zero for Germany, France, Japan and the United States in 1997 and 2018.
Source: OECD, *FDI Regulatory Restrictiveness Index database*.

StatLink https://doi.org/10.1787/888933949670

Better targeting KiwiBuild

The government is taking a more active role in increasing housing supply through Kiwibuild (Box 3.3). Once the programme ramps up, the number of affordable new dwellings is planned to exceed one third of the total dwellings consented nationally in recent years. Whether KiwiBuild is successful in increasing supply will depend on whether

it is able to deliver additional dwellings that private markets would otherwise not have delivered, by overcoming planning, infrastructure and construction industry constraints or delivering higher density development. Given the current lack of spare capacity in the construction industry, particularly in Auckland, some crowding out of private activity is inevitable: the Reserve Bank has estimated that half to three quarters of the KiwiBuild contribution to residential investment until the end of 2022 will be offset by crowding out of private investment (RBNZ, 2019[69]). The programme also has the potential to provide benefits from smoothing historically highly variable construction activity across the economic cycle, which contributes to low industry productivity, but this will only become apparent during a downturn.

By focusing solely on home ownership, KiwiBuild is not well-directed at enhancing well-being. As noted above, the links between well-being and housing ownership are weak, and those in greatest need are renters without sufficient income or wealth to buy their own house. The annual income limits for buyers of KiwiBuild homes are NZD 120 000 for singles and NZD 180 000 for couples (or other multi-party buyers), meaning that only the top 8% of potential first home buyers do not qualify (Twyford, 2018[70]). The small number of houses supplied to date have been oversubscribed, so a ballot system was used initially to ration demand; one of the first ballot winners estimated a windfall capital gain of NZD 70 000 (Hooton, 2018[71]). Irrespective of the exact figure, the need for a ballot means that there is a wealth transfer from the government to relatively well-off home buyers who are (with some constraints) subsequently allowed to sell the home at its market price.

Box 3.3. The KiwiBuild Programme

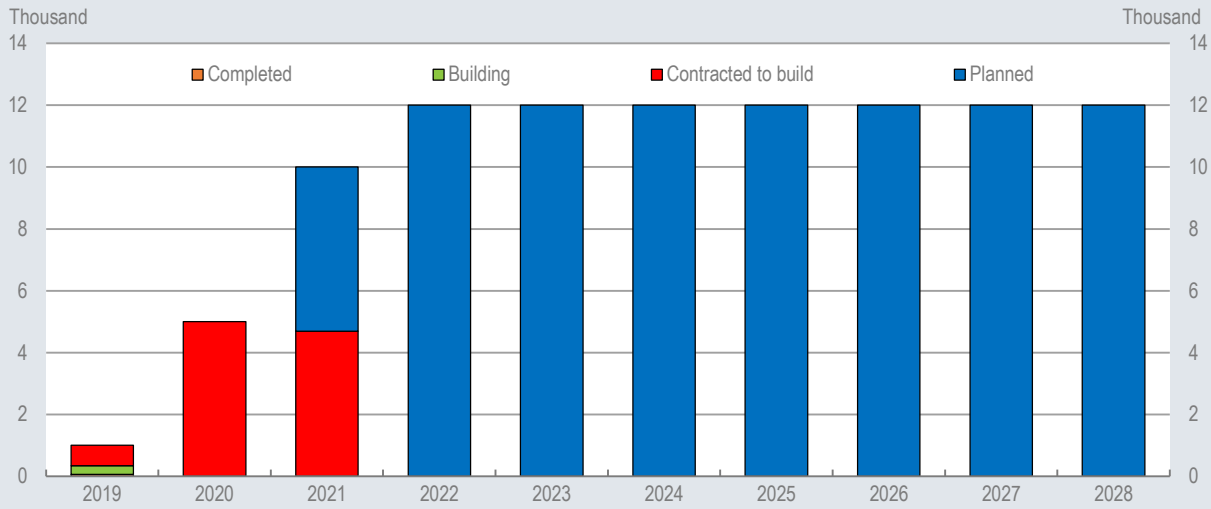
KiwiBuild is a recent NZD 2 billion programme that aims to deliver 100 000 modestly priced homes over 10 years (Figure 3.8). The objectives are to increase supply of new housing in areas with shortages, increase home ownership and catalyse change in the residential construction sector by providing the sector with confidence to invest in skills and workforce and through initiatives such as increased use of prefabrication and modular housing. The homes, half of which are to be in Auckland, are aimed at first-home buyers and will be delivered at affordable prices using four main mechanisms.

- Government underwriting or purchasing of new homes off the plans that the private sector or others are leading. Four-fifths of new KiwiBuild homes in 2019 and half in 2020 are planned for delivery this way.
- Government acquisition of suitable vacant or under-utilised Crown and private land and sale to developers, subject to conditions around the share of affordable dwellings.
- Undertaking major urban redevelopment projects, via Kāinga Ora – Homes and Communities, in partnership with iwi (indigenous communities), councils and the private sector.
- Identifying and leveraging opportunities through existing government-led housing initiatives, such as those being undertaken by Housing New Zealand.

Initiatives to streamline planning and consenting processes through the Urban Growth Agenda and Kāinga Ora will support delivery of KiwiBuild homes. Accommodation

Supplement payments (discussed below) provide a demand-side incentive for the delivery of affordable housing once supply can more easily respond.

Figure 3.8. KiwiBuild original planned delivery and progress to date (dwellings)



Note: Based on original planned delivery profile – interim targets have since been dropped. Progress as of February 2019. All dwellings for which building work is underway are assumed to be delivered in 2018-19. Enough contracted dwellings are assumed to be delivered to meet the 2018-19 target and remaining contracted dwellings delivered in 2019-20 and 2020-21. Years shown correspond to the end of fiscal years, which run from 1 July to 30 June.
Source: Ministry of Housing and Urban Development.

StatLink http://dx.doi.org/10.1787/888933949689

The government is not well-placed to take on the allocation role and holding risks it has assumed under the main KiwiBuild delivery mechanism used to date. As described above, constraints around planning, consents and infrastructure have held back delivery of new housing supply. These are areas where market failures are pervasive and government involvement is critical. Allocating scarce government housing expertise elsewhere entails large opportunity costs. Once built, markets are much better placed to allocate housing to buyers; shortages have arisen due to a lack of supply, rather than allocation problems. By underwriting or purchasing new homes, government is taking on substantial risk that could blow out the fiscal cost of KiwiBuild if housing markets were to fall or if the developments chosen are not wanted. Developers are far better placed to manage market risks and determine which developments are likely to be successful.

Other OECD countries have policy measures to promote delivery of affordable housing that do not involve the same fiscal risks or hands-on allocation role. Canada's National Housing Co-Investment Fund provides low-cost loans and/or financial contributions to support and develop mixed-income, mixed-tenure, mixed-use affordable housing. This scheme is squarely targeted at delivery of affordable rental housing, with a 20 year commitment required to keep rents for a minimum of 30% of units below 80% of the Median Market Rental rate (Canada Mortgage and Housing Corporation, 2018[72]). France operates a highly diversified and complex system of subsidies and allowances to incentivise developers to deliver housing for both affordable rental and home ownership (Calavita and

Mallach, 2010[73]). In Germany, the supply of affordable housing is increased through public subsidies in conjunction with inclusionary zoning, with rental housing generally targeted (Granath Hansson, 2017[74]). Austria provides direct construction subsidies and has been successful in maintaining housing affordability, although the high share of residential construction eligible for subsidies has impeded targeting (Scanlon, Whitehead and Fernandez Arrigoitia, 2014[75]).

KiwiBuild should be refocused on supplying land by aggregating fragmented land holdings and de-risking development sites to make it feasible for developers to step in. Examples of risks that governments can be better placed to manage than developers include using compulsory acquisition powers (at market rates) under the Public Works Act, restoring contaminated soil and upgrading or assessing uncertain underground infrastructure assets. Subsidies to private and not-for-profit developers should be used to incentivise delivery of affordable housing that would otherwise be under-provided. Priority should be given to financial support for the delivery of affordable rental housing, with requirements for dwellings to be leased at a specified discount to market rents. The precise approach under KiwiBuild delivery mechanisms other than "buying off the plans" is not yet clear, but the planned shift towards other delivery mechanisms offers an opportunity to refocus the programme in this way.

Avoiding policy measures that unnecessarily fuel demand

Tax settings favour investment in housing

The non-taxation of imputed rent[3] on owner-occupied housing and capital gains biases household portfolios towards housing and has contributed to rising house prices. Housing investors can offset interest expenses against rents and other income sources, although offsetting against other income sources would be disallowed under government proposals to ringfence rental losses. Combined with the absence of capital gains tax on rental properties held for five years or more (recently increased from two years) unless there was an intention to make a capital gain, this inflates property valuation by over 50% for an investor with an 80% mortgage (OECD, 2011[13]). Owner occupiers benefit less when they have a large mortgage as they are unable to deduct mortgage expenses, but property valuation for an unmortgaged owner-occupier is inflated by more than 100% due to the non-taxation of imputed rent. New Zealand is unusual among OECD countries in having no comprehensive capital gains tax, although most countries exclude the primary residence. Because nominal interest income and dividends are taxed, the absence of a capital gains tax raises the relative returns to assets with good prospects for price appreciation, such as housing, farm land and, to a lesser extent given high dividend payout rates and the thin domestic market, equities.

The house price effects of introducing a comprehensive capital gains tax would be curtailed if it did not apply to primary residences, as in the Tax Working Group (2019[76]) proposal. Lower post-tax returns for investors would contribute to lower house prices and higher rents as investors pass through costs to renters. (The proposed ringfencing of rental losses can be expected to have a similar effect, though a smaller number of landlords would be directly affected.) Demand from potential owner occupiers would increase due to higher rents and lower returns on alternative investments now subject to capital gains taxation, such as equities. The cooling effect on house prices is thus likely to be small.

Some incremental changes to taxation of housing are warranted. Restoring building depreciation for multi-unit residential developments would increase the supply of this type

of housing and support greater densification in urban areas. However, this would also exacerbate under-taxation of housing, so the case would be stronger if a capital gains tax was introduced. Another issue is the incentive for landholders on city fringes to withhold land from development for up to 10 years to avoid tax on sale where at least 20% of the gain can be attributed to zoning or other specified changes (Tax Working Group, 2018[77]). This could be resolved by removing this tax and relying on land taxes (as discussed above in relation to council rates) or targeted rates as less distortionary means of value capture. The government has identified repealing the ten-year rule as a high priority and has asked the Productivity Commission to consider a tax on vacant residential land as part of its inquiry into local government funding and financing.

Eliminating poorly targeted home ownership subsidies

Further support is provided through subsidies and government-backed access to loans with small deposits (Table 3.3). Financial assistance for home ownership is middling among OECD countries (OECD, 2017[17]), excluding the cost of KiwiSaver first-home withdrawal for which data are unavailable. Home ownership subsidy schemes seek to increase home ownership by assisting low- and moderate-income households to purchase their first home. Tenure-neutral objectives, such as housing affordability and quality, would be more useful. As noted above, well-being benefits of home ownership are much less certain than from access to quality affordable housing more generally. The main economic argument for subsidising owner occupation is that homeownership may give rise to positive spillovers for society, such as wealth accumulation, better (external) property maintenance, community engagement and voting behaviour. On all of these issues there is competing evidence and establishing causality is difficult (Andrews and Caldera Sánchez, 2011[78]).

Furthermore, New Zealand's programmes to facilitate the transition to home ownership have generally failed to help large numbers of households purchase a first home (NZ Productivity Commission, 2012[20]). Subsidies can be self-defeating by pushing up the price of houses commonly purchased by first-home buyers, particularly where the supply response is weak. Associated wealth transfers have adverse consequences for distribution and thereby well-being.

The government should rationalise support for first-home buyers, as multiple policy tools seek to meet broadly the same objective. The KiwiSaver HomeStart Grant has some valuable features: it is means tested and available to people who have previously owned a home but are in a similar financial situation to a first-home buyer. However, its targeting does not necessarily align with locations of greatest housing need, as house price caps restrict support in areas with high housing costs. Around one in ten homes bought with a HomeStart subsidy were in Auckland in 2016, while one third of the population and half of people in crowded households lived there (Housing NZ, 2018[79]).

As noted in the 2011 *Survey*, the option for KiwiSaver members to withdraw balances to purchase a first home undermines incentives to diversify household portfolios away from housing and is poorly targeted, as those with higher incomes have higher balances. Welcome Home Loans work against macro-prudential controls (from which they are exempted) by allowing loans with high loan-to-value ratios, pushing risk back onto the government and adding to the overall fiscal cost. The benefits for lower-income households, who are at greater risk of default anyway, are questionable in a context where prices have been rising fast for some time and could fall sharply. Administrative costs are likely to be high relative to the benefits, given weak take-up.

Shared equity arrangements can increase access to home ownership for those with lower incomes, but also transfer risk away from those best able to control it (homebuyers) and carry greater complexity and administrative cost than HomeStart Grants. Consideration should be given to whether funding would be better directed towards improving health, education and distributional outcomes through supporting the broader housing needs of low-income households, in particular through more support for private and social rentals.

Table 3.3. Government subsidies to assist with home ownership

Programme (year of commencement)	Support available	Means testing	Take-up
KiwiSaver HomeStart Grant (2007)	NZD 3 000 to 5 000 depending on duration of contributions (NZD 6 000 to 10 000 for purchase of a new home)	Income <85 000 or <130 000 for couples Regionally-specific house price cap (400 000 to 600 000 for existing houses) Asset test for previous home owners	16 712 in 2016-17
KiwiSaver first-home withdrawal (2007)	Can withdraw member and employer contributions, returns on investment and member tax credits, subject to keeping a minimum balance of NZD 1 000	Asset test for previous property owners	33 000 in 2016-17
Welcome Home Loan (2003)	Smaller deposit requirement (10%), with risk for lender underwritten by Housing NZ	Income <85 000 or <130 000 for couples Regionally-specific house price cap (400 000 to 600 000 for existing houses) Asset test for previous home owners	1 381 in 2016-17
Kainga Whenua (2010)	Lenders mortgage insurance to help Māori to achieve home ownership on multiple-owned land	No – income caps removed in 2013 – although only available to people that have no other access to finance	17 since introduced in 2010

Source: Housing New Zealand, *Ways we can help you to own a home*, https://www.hnzc.co.nz/ways-we-can-help-you-to-own-a-home/; Housing New Zealand, *Annual Report 2016/17*, https://www.hnzc.co.nz/assets/Publications/Corporate/Annual-report/HNZ16117-Annual-Report-2017.pdf; KiwiSaver, *KiwiSaver Funds Withdrawn*, https://www.kiwisaver.govt.nz/statistics/annual/withdrawals/.

Supporting low-income renters

Renters on average have lower incomes than owner-occupiers and spend a greater share of their income on housing (Section 3.1.2). Rental quality and security of tenure is low, with 12 month tenancies most common and an average rental duration of 2 years and 3 months (Johnson, Howden-Chapman and Eaqub, 2018[80]). This is only slightly lower than the average rental duration in England, but far below an average 11 years in Germany (IPPR, 2018[81]). By comparison, 70% of owner-occupiers in New Zealand have been in their current property for five years or more (Statistics NZ, 2015[82]), while tenants are expected to stay an average of 17 more years in social housing (MSD, 2017[83]). Although renters might reasonably be expected to move more often than owners (with advantages for labour mobility), duration of tenure has been found to be associated with better outcomes, notably for children (Galster et al., 2007[84]). Older renters are particularly vulnerable to tenure insecurity, may need modifications to meet their needs and have a greater need for warm, comfortable and functional housing more generally; the number of older renters is set to rise with ageing of the population and decreasing home ownership rates (James and Saville-Smith, 2018[85]). Tenants would be better served by a rental market in which they have greater choice over if and when they move house.

Tenant-landlord regulation should be improved, in particular by increasing security of tenure and thus social and family stability. New Zealand ranks equal fifth lowest among 31 OECD countries for the restrictiveness of rental control and tenure security requirements (Kholodilin, 2018[86]). Proposals currently under consultation would go some way to

improving security of tenure through limiting the frequency of rent increases, extending notice periods and tightening the conditions around which landlords can end a tenancy (MBIE, 2018[87]). In Germany and the Netherlands, security of tenure is strong for tenants who meet their contractual obligations (contracts are typically open-ended and sale of the dwelling is not a valid reason for termination) but this has not been a considerable disincentive to rental investment, as it has fostered long-term demand for renting and stable incomes for landlords (de Boer and Bitetti, 2014[88]).

One missing component is some restriction on rent increases in line with market rates, for example, as measured by local residential bond tenancy data. This would avoid landlords increasing rents to capture the benefits to an established tenant of remaining in the same dwelling and the use of rent increases as a means of eviction. However, restrictions should not serve to push rents below market rates, as such forms of rent control are detrimental to residential mobility and do not deliver long-term lower rents as they impede new supply (Andrews, Caldera Sánchez and Johansson, 2011[89]). While rent that substantially exceeds market rates is already disallowed, this requires comparison across properties, controlling for differences such as location, size, condition and facilities. Restricting rent increases for sitting tenants would be simpler and more effective. Germany has fostered a successful private rental sector through leaving initial rents effectively unregulated and tying subsequent increases to local reference rents, with greater increases permitted in proportion to any renovation expenditure (de Boer and Bitetti, 2014[88]).

The government has recently announced healthy homes standards for rental homes, which introduce minimum requirements for insulation, heating, ventilation, draught stopping, moisture ingress and drainage. Policy measures to increase minimum standards for rental homes should apply the regulatory principles developed by the NZ Productivity Commission (2014[90]), which set out when regulation should be principles-based, outcomes-based, prescriptive or process-based. Recent policy changes should be evaluated and adjusted in due course, as improving rental quality remains critical. Relevant to the natural capital component of well-being, substantial improvements in the energy efficiency of buildings (new and existing) are likely to be needed to get emissions on to a trajectory consistent with Paris Agreement targets (Climate Action Tracker, 2016[91]).

Increasing the supply of social housing

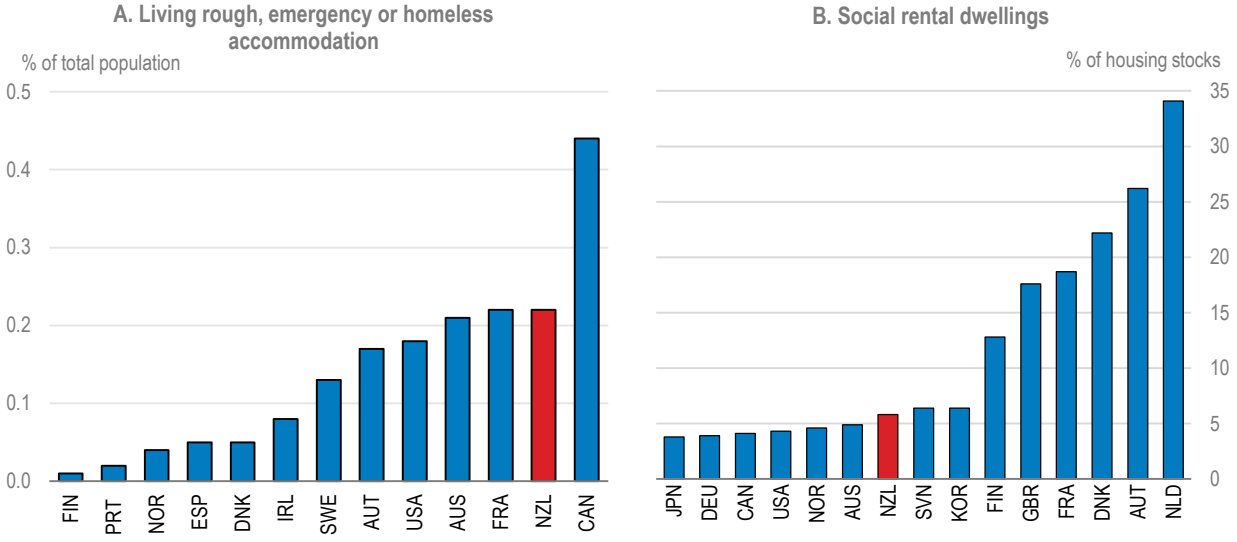
Social housing supply is low by international comparison and there are poor outcomes for at-risk groups, including overcrowding, low quality housing and high homelessness (though international comparability here is highly problematic – Figure 3.9). Homelessness has increased during the past decade, as in most OECD countries, although the lack of consistent data for New Zealand makes it difficult to identify trends in a timely fashion. The share of homeless people increased from 0.8% in 2006 to 1.0% in 2013 with an increase in households temporarily sharing with others (Amore, 2016[19]). Drivers of homelessness are many and varied, but deteriorating access to affordable housing has been a contributing factor (Cross-Party Inquiry on Homelessness, 2016[92]).

The government-owned Housing New Zealand Corporation (Housing NZ) owns and manages the majority of social housing dwellings (Table 3.4). This role will be taken over by Kāinga Ora, once established. Unaffordability of private rentals has increased pressure on social housing, with the waiting list more than doubling to 10 700 in the two years to December 2018 (MSD, 2018[93]). Over three quarters of those on the waiting list have been assessed at the highest level of housing need. Social housing cannot remedy the overall affordability problems but plays an important role at the bottom end of the market by

providing non-discriminatory access, security of tenure and targeting for those suffering multiple or severe disadvantage. Budget 2019 included NZD 197 million to strengthen the Housing First programme and fund an additional 1044 places. Similar programmes in US cities have increased residential stability, with additional gains in health and well-being.

Figure 3.9. Homelessness is high and social housing stocks are low

2015 or latest year available



Note: Definitions of homelessness and the methodology for measuring it vary by country. New Zealand's numbers are based on the census, whereas many other countries use surveys of relevant social support agencies, which are less likely to identify homeless people. Data in Panel A exclude people living in institutions, in non-conventional dwellings or temporarily sharing with another household due to lack of suitable alternatives, which are included in the total homeless population for some countries. New Zealand has a relatively large proportion of people temporarily sharing with another household, but in part this reflects the census approach and a broader definition to that used in other countries. For example, Australia applies stricter rent and income thresholds for those sharing temporarily to be considered homeless. For details, see https://www.oecd.org/els/family/HC3-1-Homeless-population.pdf.

Source: OECD, Affordable Housing database, http://www.oecd.org/social/affordable-housing-database.htm and national sources underlying the database.

StatLink https://doi.org/10.1787/888933949176

Table 3.4. NZ social housing stock, number of dwellings 2017

	Housing NZ	Councils	NGOs and others	Total
Receiving income-related rent subsidies	58 500	0	4 800	63 300
Not receiving income-related rent subsidies	4 400	7 700	7 900	15 300
Total social housing	62 900	7 700	12 700	83 300

Source: A. Johnson et al. (2018), *A Stocktake of New Zealand's Housing*.

Increases in the supply of social housing beyond those underway are necessary. Placement in social housing can improve well-being through marked improvements in health (Baker, Zhang and Howden-Chapman, 2010[94]), a lower number of remand and prison sentences, and increases in children's access to education (Social Investment Unit, 2017[95]). Housing conditions generally improve for people placed into social housing in New Zealand (though

feelings of safety deteriorate), with the well-being benefit of increased life satisfaction potentially exceeding the cost of provision (Social Investment Agency, 2018[8]). While the government plans to expand social housing by 6400 units over four years, this will be insufficient to meet current demand from those with highest need on the waiting list. Redevelopment at greater density and with a broader mix of housing types as in the Tamaki Regeneration offers promise as a means to achieve densification while reducing social segregation. To ensure that redevelopment responds to citizens' needs, they should be systematically surveyed at the outset of any project.

Further entry of community housing providers should be encouraged through allowing competition with Housing NZ on a level playing field when developing new supply. The community housing sector, comprising iwi and non-governmental organisations, is small and fragmented but has had some successes such as the Waimahia housing development in South Auckland. More community housing would add to choice, offer opportunities for tenants to benefit from their own efforts by eventually purchasing their dwelling and can attract additional resources into housing, for example through private donations and co-operative funds. However, it may be challenging for community housing suppliers to develop sufficient scale in a country with low population and wide geographic spread. Rather than transfer stock from Housing NZ, which does not deliver any net increase in supply and undermines its scale and scope, the government should (as since 2014 for Auckland and since 2018 elsewhere) continue to allow community housing providers to access income-related rent subsidies on the same basis as Housing NZ. Capital grants and favourable loans, which can help community housing providers overcome financing difficulties, are used in a number of countries that have been successful in delivering social housing through non-government organisations, such as Austria and France, but there has been a trend away from such support in many other OECD countries. The development of a long-term strategy for social housing and clearer expectations of quality, quantity, and availability as recommended by the Controller and Auditor General (2017[96]), would provide greater investment certainty for community housing providers.

Efficient and well-targeted allocation of social housing is essential. In general, targeting is good in New Zealand. While many "high-risk" applicants on the waiting list are likely to have greater needs than a large proportion of those already in social housing, wait times are short at a median 77 days. Regular tenancy reviews have contributed by helping ensure that those whose circumstances have improved sufficiently have moved to other forms of tenure. The government has recently broadened the list of exemptions from tenancy review to exempt all tenants where they or their partner have children aged 18 or under in their care or are themselves aged 65 or over; 81% of social housing tenants are now exempt. This broadening does not appear to be justified by the outcomes of those who have recently moved out of social housing following tenancy review, 89% of whom no longer received any accommodation support after 12 months and only 3% of whom subsequently returned to social housing (Twyford, 2018[97]).

Housing NZ's independence and funding based on the gap between income-based and market rents provides transparency about the annual costs to taxpayers. While Housing NZ and the Ministry of Social Development have strengthened their approaches to sharing information, they still need to work more closely together (Controller and Auditor-General, 2017[96]), for example with regard to efficient provision of broader social services to social housing tenants. As the Treasury has noted, financing new social housing out of normal Crown debt rather than independent borrowing by Housing NZ would reduce borrowing costs, strengthen fiscal control and be more appropriate given the absence of genuine financial risk transfer. However, Housing NZ would need to retain enough certainty around

financing flows to support investment. As recommended in the 2011 *Survey*, Housing NZ could improve long-term financial viability as well as efficiency incentives by removing water rate subsidies for tenants paying market rents.

The role of Accommodation Supplement payments

New Zealand spends a relatively large share of GDP on housing allowances through the Accommodation Supplement (AS), which is available to eligible renters and own-occupiers (Table 3.5;Figure 3.10, panel A). Payments increased further from 1 April 2018, and are projected to exceed 0.5% of GDP in the 2018-19 fiscal year. This was the first increase in AS payment rates since 2007. A relatively large share of the population receives AS payments, particularly among the third quintile (panel B). This is due to high maximum payment rates as well as relatively gradually phasing out of payments at a rate of 25 cents in the dollar above an income threshold. Families with incomes of up to NZD 96 000 can still be eligible to receive some AS payments.

Table 3.5.Rental assistance payments in New Zealand

	Available to	Means tested	Number of recipients, June 2018 quarter	Annual fiscal cost, 2018 forecast (NZD millions)
Income-related rent subsidy	Social housing tenants paying below market rents	Yes	64 312 households	889
Accommodation Supplement	Renters and owner-occupiers not in social housing	Yes	284 686	1 208
Temporary Additional Support	Those needing assistance to cover essential living costs for up to 13 weeks	Yes	58 763	212[1]
Transitional Housing	People in need of warm, dry and safe short-term accommodation	Yes	2 341 places	70.8[2]
Emergency Housing Special Needs Grant	Individuals and families unable to access transitional housing places	Yes	10 879	34.0

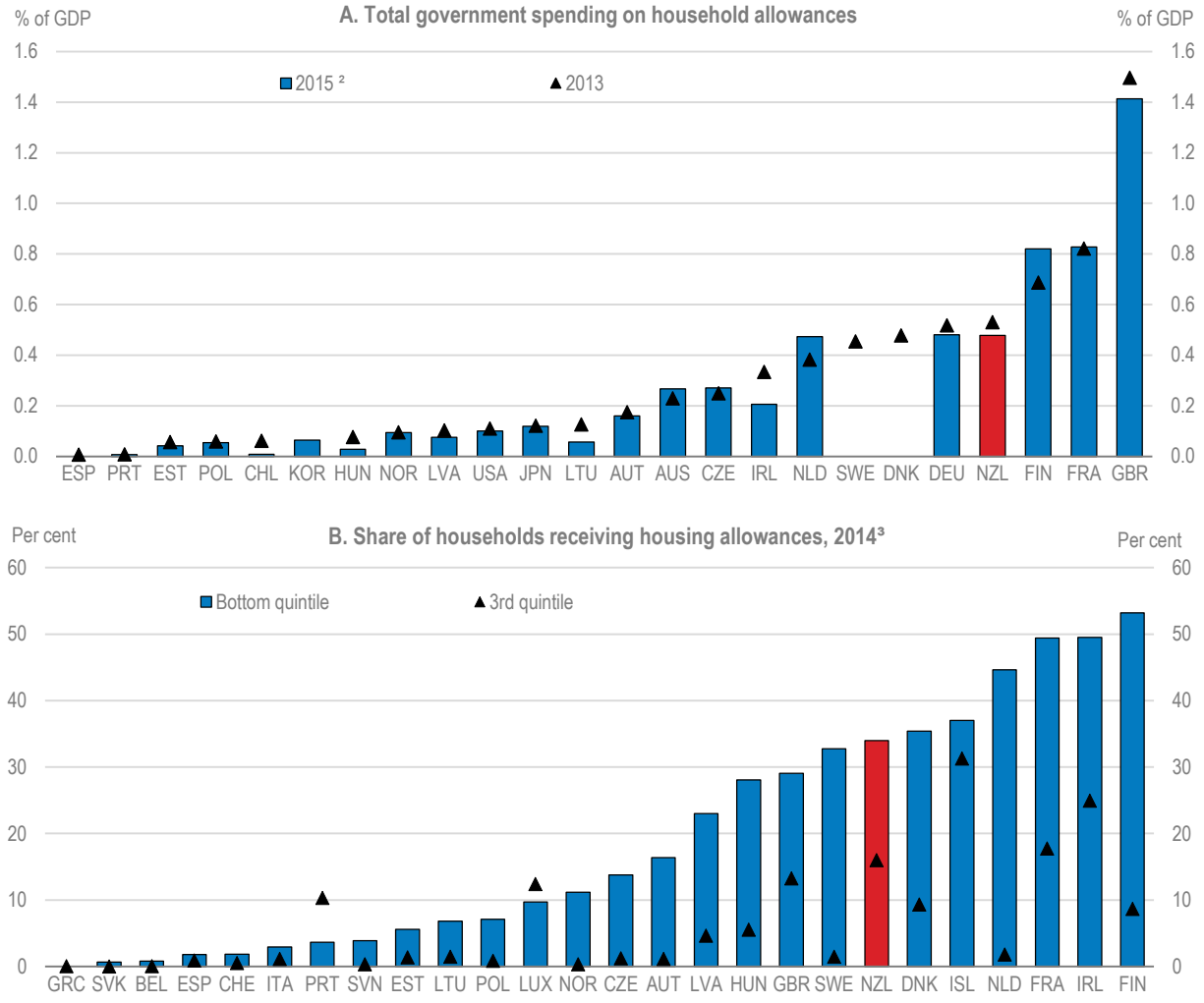
1. Extrapolation based on expenditure in the first half of 2018.
2. Average annual cost over five years.
Source: Ministry of Social Development (2018), *Housing Quarterly Report*, June; NZ Government (2018), *Budget Economic and Financial Update*.

The maximum Accommodation Supplement payable to a family living in Auckland is just over NZD 15 000 per year, comparable to the average cost of income-related rent subsidies for social housing tenants of NZD 13 000. There can, however, be discrepancies in certain cases. For example, a single person living in Auckland and earning the maximum for social housing eligibility would spend 33% of her gross income on income-related rent if she was in social housing, compared with 52% after AS payments if she was paying the average lower quartile private rental. Housing allowances do not reduce residential and labour mobility the way social housing can, and facilitate targeting of benefits, but around one third of the benefits have been estimated to accrue to landlords through higher rents (Hyslop and Rea, 2018[98]). In turn, higher prices for houses rented to those receiving AS will provide an incentive for investment in affordable housing, but this will only deliver benefits if development is able to respond.

The government should review the rate of AS payments within the next few years, taking into account changes in rents and any improvement in supply responsiveness as a result of planning and infrastructure reforms. There may be scope to better target AS payments to those in need by phasing out payments more rapidly with increasing income, but effects on

employment incentives need to be considered. There might also be a need to increase payment rates in areas with high rents – notably Auckland – but refocusing Kiwibuild towards provision of rental housing may reduce this need.

Figure 3.10. Spending on housing allowances and number of recipients are high[1]



1. Includes support for owner occupiers and renters. Also includes support for social housing tenants where this occurs through housing allowances, as in the United Kingdom.
2. Year of reference of 2015 data is actually 2014 for France, 2014-15 for the United Kingdom and missing for Denmark and Sweden. For more detail, see footnotes in Figure PH 3.1.1 in Source.
3. Quintiles are based on the equivalised disposable income distribution. Low-income households are households in the bottom quintile of the net income distribution.
Source: OECD, Affordable Housing database, Figures PH3.1.1 and PH3.3.1, http://www.oecd.org/social/affordable-housing-database.htm.

StatLink https://doi.org/10.1787/888933949708

FINDINGS (main findings in bold)	RECOMMENDATIONS (key recommendations in bold)
Increasing the responsiveness of housing supply	
Unnecessarily restrictive and complex land-use regulations have inflated land and house prices, disproportionately affecting construction of affordable housing.	**Replace strict regulatory containment policies (such as restrictions on multi-dwelling units, minimum lot sizes, density controls and minimum parking requirements) with clear rules around overshadowing, building size according to location and green spaces**.
National guidance is lacking on how local governments should implement the Resources Management Act in urban settings and how to reconcile it with planning requirements under the Local Government and Land Transport Management Acts.	Through the Urban Growth Agenda, provide clear overarching principles for sustainable urban development. Support widespread adoption of initiatives that have been successful in the Auckland Unitary Plan, such as spatial planning and upfront consultation.
Local governments bear the bulk of infrastructure costs, but have limited ability to recoup costs except through development contributions or rates charged to residents. They thus have a fiscal incentive to resist population growth through restrictions on planning or building.	**Increase user charging for water and roads, and remove barriers to greater use of targeted local taxes on property value increases resulting from changes in land use regulation or from infrastructure investment.** Give councils access to additional revenue linked to local development and shift the tax base for local government rates to unimproved land value.
Councils rely on a narrow range of financing options for infrastructure and in many cases are constrained by lending covenants imposed by the Local Government Funding Authority.	With support from the new infrastructure body, broaden the range of infrastructure financing options available to councils through greater access to public-private partnerships and project-specific bond issues.
Joint and several liability incentivises building consent authorities to be excessively risk averse. Individual council certification of building materials is inefficient and can create a barrier to innovation.	Consider moving to a system of proportionate liability for the building sector, with consumers protected by mandatory backstop building insurance overseen by a single central government agency. Introduce government-backed provision of building insurance on a competitively-neutral basis if a viable market cannot be sustained with private sector insurers alone.
Construction of new affordable housing through KiwiBuild will only increase overall supply if planning, infrastructure and construction industry constraints are overcome. Targeting is poor and the government has taken on risks better borne by developers.	**Re-focus KiwiBuild on enabling the supply of land through aggregating fragmented land holdings and de-risking development sites.** **Give greater priority to new rental housing.** Cease underwriting or purchasing homes and end the government's role in allocating houses to buyers. Provide subsidies to developers to provide affordable housing where necessary.
Avoiding policy measures that unnecessarily fuel demand	
Home ownership subsidies have failed to help large numbers of households purchase a first home, contribute to higher house prices and have adverse distributional consequences.	Review government support for home ownership beyond that available through the tax system. Phase out Kiwisaver first-home withdrawal and Welcome Home Loans.
Supporting low-income renters	
Security of tenure for renters is low and there is no constraint on the ability of owners to raise rents for sitting tenants.	Tighten conditions for landlords to end a tenancy, as planned, and cap annual rent increases in line with local market rent growth.
Low-income renters have been particularly badly affected by declining housing affordability. Social housing stocks are low by international comparison and waiting lists are growing.	**Increase social housing provision in areas with shortages, including through expanding partnerships with non-governmental organisations and reallocating funding from KiwiBuild.**

Notes

[1] An alternative measure shows marginally worse housing affordability for potential first home buyers in Auckland in March 2017 than in 2008 (MBIE, 2018[99]).

[2] The term "councils" is used here to refer collectively to New Zealand's 78 regional, district, city and unitary councils, which form the local government sector.

[3] Imputed rent is the economic benefit gained by owner-occupiers from living in their own home. Non-taxation of this source of income makes the tax treatment of owner-occupied housing more favourable than that of other forms of investment.

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