

New Zealand Sovereign Green Bond

Programme September 2022

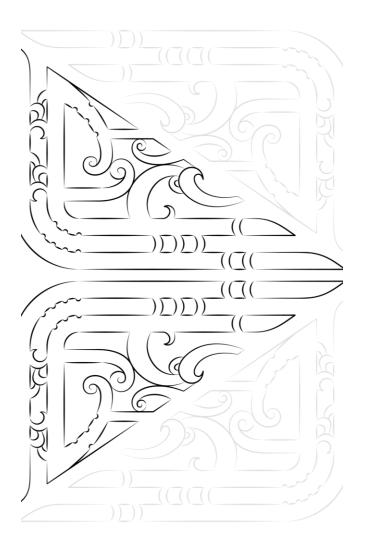


Te Taiao: A Māori perspective on the environment

Ko ahau te taiao ko te taiao ko ahau

I am the environment, and the environment is me*

- Māori are the indigenous people of New Zealand.
- Te ao Māori, the Māori worldview, recognises the interconnectedness of all things and Māori have inextricable connections with te taiao.
- Māori wellbeing emphasises the importance of relationships between humans and te taiao across generations.



* This whakataukī (proverb) is a glimpse into te ao Māori. It shows the intrinsic link between people and the environment. Source<u>Te timatanga o te ao</u> <u>Māori | Ministry for the</u> <u>Environment</u>



Overview

- New Zealand's Climate and Environmental Priorities
- Green Bond Framework
- Case Studies
- Funding Strategy
- Economic & Fiscal Outlook







New Zealand's Climate and Environmental Priorities





New Zealand's climate change commitments and actions

2016

2002

Climate Change Response Climate Change Government set its first Signatory to the Paris Act created the legal Commission emissions budgets as interim Agreement – framework to enable New contributing to global provided targets towards the 2050 Zealand to meet its efforts to limit the independent advice target, and published its first international obligations increase in global on reaching these **Emissions Reduction Plan** under the UN Framework (ERP) and National Adaptation average temperatures to targets Convention on Climate 1.5C above pre-industrial Plan (NAP) as required by the Change and the Kyoto levels Zero Carbon Act Protocol 2008 2021 2019 New Zealand Climate Change Response (Zero **Nationally Determined** established a Carbon) Amendment Act 2019 Contribution updated national **Emissions** legislated domestic climate targets reduce net emissions by **Trading Scheme** net-zero long-life emissions by 2050 50 per cent below 2005 and 24-47 per cent reduction in gross gross emissions by 2030 biogenic methane emissions by 2050

compared to 2017 levels

2021

2022



New Zealand's environmental priorities

- Addressing climate change and protecting the environment are inextricably linked and the Government is committed to addressing both challenges.
- The Government is currently reforming New Zealand's <u>resource management and</u> <u>planning system</u> to promote positive outcomes for the natural and built environments.
- <u>Reducing agricultural emissions</u> through pricing agricultural emissions, accelerating mitigation technologies and supporting transition to lower emissions land uses.
- The Government's <u>Biodiversity Strategy</u> sets the direction for protecting, restoring and sustainably using biodiversity.
- The Government is also taking action to protect and restore New Zealand's freshwater.







New Zealand Sovereign Green Bond Programme

Environmental priorities are integrated across other strategies and policies

- The <u>Government Policy Statement on</u> Land Transport 2021/22-2030/31
- The <u>Three Waters</u> (drinking water, wastewater, and stormwater) Reform Programme
- New <u>waste minimisation legislation</u> <u>and strategy</u> under development
- <u>Green Star</u> standards for government buildings
- The <u>Carbon Neutral Government</u> <u>Programme</u> (CNGP)
- The International Climate
 <u>Finance Strategy</u>





New Zealand's Green Funding and Finance

- <u>Sovereign Green Bonds</u>: Providing financing for low-emissions or environmental projects.
- <u>Climate Emergency Response Fund</u>: Providing funding certainty over multi-year periods and a dedicated source of funding for public investment in climate change-related initiatives that is distinct from the main budget allowances.
- <u>New Zealand Green Investment Finance</u> (NZGIF) is Aotearoa New Zealand's green investment bank, established by the Government in 2019 to accelerate investment that supports decarbonisation.
- Mandatory climate-related disclosures: In 2021 legislation was introduced in New Zealand which will require large publicly listed companies, insurers, banks, credit unions, building societies and investment managers to prepare climate-related disclosures based on the recommendations of the <u>Task-Force on Climate-Related</u> <u>Financial Disclosures</u> (TCFD).
- Reserve Bank of New Zealand joined the <u>Network for Green</u> <u>Financial System</u>.





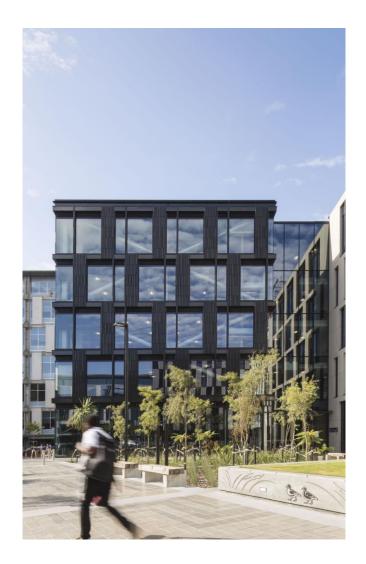


New Zealand Sovereign Green Bond Framework



Rationale for issuing Green Bonds

- Climate change is a priority for the New Zealand Government. Green Bonds will help finance commitments made.
- To help ensure high value projects are undertaken and well executed.
- To drive market best practice outcomes in monitoring and reporting on climate expenditures.
- To support the development of New Zealand's sustainable finance market.
- To accommodate an increased demand for green assets from investors.
- To expand the broad and diversified investor base in New Zealand Government Bonds.





Components of New Zealand's Green Bond Framework New Zealand's Green Bond Framework has been developed in accordance with the ICMA Green Bond Principles (2021) and is aligned with its key components and recommendations. Use of Proceeds Eligible green expenditures include a wide range of green categories, reflecting the New Zealand government's broad climate and environmental agenda. **Project Evaluation and Selection** A cross-agency governance group will review and endorse expenditures included in the eligible expenditure pool. **Management of Proceeds** An amount equivalent to unallocated bond proceeds will be deposited as cash in the Crown's Settlement Account with the Reserve Bank of New Zealand. Reporting =\$=" Regular allocation and impact reporting will enable investors to track the progress and positive impacts delivered by the Green Bond Programme. **External Review** A second party opinion (SPO) on the Framework has been provided by Sustainalytics. Allocation reports will be subject to external verification by an independent entity.



Green Categories

Green Category	Green Objectives
Clean Transport	 Reduce reliance on cars and support people to walk, cycle and use public transport. Adopt low- and zero- emissions vehicles (<75g CO₂ per km for light vehicles). Support decarbonisation of heavy transport and freight (<50g CO₂ per passenger-km for public transport vehicles, <25g CO₂ tonne-km for freight transport vehicles and a minimum 40% emissions reduction for hybrid ferries). Promote the shift to low- and zero-emissions transport modes (now or in the future) by delivering new and upgraded transport infrastructure, as well as maintaining existing infrastructure.
7 Allerative of the second	 Improve energy efficiency and manage demand for energy. Reduce reliance on fossil fuels and support the switch to low-emissions fuels. Reduce industry emissions and energy use.



Green Categories

Green Category	Green Objectives
Green Buildings	 Reduce carbon emissions from government buildings.
Living and Natural Resources and Land Use	 Enhance sustainable agriculture, horticulture, forestry, fisheries, and aquaculture sectors. Accelerate agricultural emissions mitigation technologies. Transition to lower-emission land uses and systems. Support afforestation and maintain existing forests.
14 Image: 15 million14 Image: 15 million15 Image: 15 millionTerrestrial & Aquatic Biodiversity	 Restore and protect freshwater ecosystems. Restore and protect New Zealand's natural environment, including indigenous flora. Recover and preserve species, including indigenous fauna.



Green Categories

Green Category	Green Objectives
Climate Change Adaption	 Increase infrastructure resilience to natural hazards created or exacerbated by climate change. Help regions, communities, and Māori to make better risk-informed decisions to prepare for and respond to climate change and climate-related disasters. Support other countries to enhance their resilience to climate change.
Sustainable Water & Wastewater Management	 Improve infrastructure for Three Waters (drinking water, wastewater, and stormwater). Support sustainable water storage facilities and schemes.
Image: Non-State of the state of the stat	 Remediate and restore contaminated land. Minimise waste (including through prevention, reduction, reuse, recycling, and recovery) and waste emissions.



Eligibility Window

- Expenditures are limited to those in the financial year prior to issuance, the current financial year and the two financial years following issuance.
- At least 50% of total proceeds will be allocated to current and future expenditures.



Exclusions

- To avoid double counting, any expenditures wholly financed by green instruments issued by Crown entities, Crown companies or local government are excluded. Where expenditures are co-financed, only the Crown's portion of the expenditures will be included.
- The following expenditures are excluded:
 - Exploration and production of fossil fuels
 - Nuclear energy
 - Arms manufacturing and chemical weapons
 - Manufacture and production of alcohol, tobacco, and recreational cannabis
 - Gambling
 - Processing of whale meat.



Governance

A cross-agency Green Bond Committee has been established to support the Treasury and oversee the Green Bond Programme.

Membership of the GBC¹

- <u>The Treasury</u> (Chair)
- New Zealand Debt Management (NZDM)
- <u>Ministry for the Environment</u>
- Ministry of Transport
- <u>Waka Kotahi, New Zealand Transport</u> <u>Agency</u>
- <u>Ministry of Business, Innovation and</u> <u>Employment</u>
- <u>Ministry for Primary Industries</u>
- Department of Conservation
- An independent member with relevant skills and experience.

Role of the GBC

- Oversee the <u>Green Bond Framework</u> and endorse any amendments
- Endorse Eligible Expenditures for inclusion in the Eligible Expenditures Pool
- Oversee the management of proceeds
- Oversee impact and allocation reporting, and risk management.



Note 1: Membership of the GBC will be reviewed on a periodic basis.

Project evaluation and selection

- The Treasury will periodically include new expenditures in the Programme. It will:
- engage with government agencies to identify expenditures
- evaluate expenditures for alignment with the <u>New Zealand Sovereign Green Bond Framework</u>
- prepare advice for the cross-agency Green Bond Committee
- The Committee will consider and endorse expenditures to include in the Programme.
- Agencies are responsible for monitoring their expenditures, including identifying, managing and reporting any political, legal, climate, social or environmental risks relating to their expenditures.
- The Treasury will periodically review expenditures and determine if any changes are required. Expenditures that have been terminated, postponed or are no longer eligible will be removed from the Programme.





New Zealand Sovereign Green Bond Programme

Management of proceeds

A robust process will be maintained to track and report on proceeds.

- The Treasury will be responsible for the allocation of proceeds and will periodically review and adjust the balance of total green bond proceeds allocated to eligible projects.
- An amount at least equal to the total net proceeds of the bonds is expected to be allocated to Eligible Expenditures within two financial years following the financial year of issuance.
- An amount equivalent to any unallocated proceeds will be deposited as cash in the Crown's Settlement Account with the <u>Reserve Bank of New Zealand</u>.





Reporting

The Treasury is committed to providing transparent and regular allocation and impact reporting.

Allocation Reporting

The Treasury will publish an annual allocation report commencing in the financial year following a Green Bond issuance.

Impact Reporting

The Treasury will publish the first impact report, including outputs and outcomes, within two years of the first Green Bond issuance and annually thereafter.

Publication Details

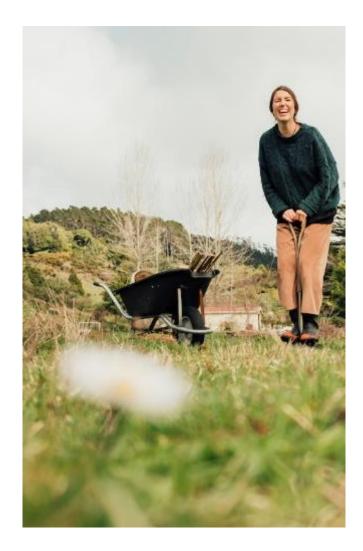
- Reporting will be made publicly available on the Treasury and NZDM's website.
- Reporting will include climate and environmental impact indicators, case studies of selected expenditures and information on the social co-benefits of the expenditures, where available.
- In finalising the annual allocation report, the Treasury will procure and publish external verification.



Second Party Opinion – <u>Sustainalytics</u>

Sustainalytics has provided a <u>Second Party Opinion</u> which has confirmed that:

- the New Zealand Sovereign Green Bond Framework is robust, transparent, credible and impactful and aligns with the four core components of the Green Bond Principles 2021.
- green bonds issued under the Framework are expected to advance the New Zealand Government's efforts in low-carbon development and generate positive environmental impact in New Zealand.
- the New Zealand Sovereign Green Bond Framework is aligned with the New Zealand Government's sustainability strategy, and Sustainalytics considers the New Zealand Government is well positioned to issue green bonds.
- the New Zealand Government demonstrates a commitment to sustainability through its sustainability strategy, supported by polices and plans.
- the New Zealand Government has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the proceeds.







Use of Proceeds¹

Green Categories	2021/22 \$m	2022/23 - 2024/25 \$m	Total \$m	Share %
Clean Transport	\$750	\$2,339	\$3,089	45.4%
Energy Efficiency and Renewable Energy	\$172	\$775	\$947	13.9%
Green Buildings	ТВС	ТВС	TBC	TBC
Living and Natural Resources and Land Use	\$17	\$74	\$91	1.3%
Terrestrial and Aquatic Biodiversity	\$410	\$1,410	\$1,820	26.8%
Climate Change Adaptation	\$72	\$116	\$188	2.8%
Sustainable Water and Wastewater Management	\$322	\$150	\$472	6.9%
Pollution Prevention and Control	\$36	\$157	\$193	2.8%
Total	\$1,779	\$5,021	\$6,800	100.0%





Case Study: Auckland City Rail Link



Agency: Ministry of Transport/City Rail Link Limited

Primary Green Objective:

 Promote the shift to low- and zero- emissions transport modes (now or in the future) by delivering new and upgraded transport infrastructure, as well as maintaining existing infrastructure.

The City Rail Link (CRL) is the largest transport infrastructure project ever to be undertaken in New Zealand. The CRL is jointly funded by the Government and Auckland Council.

The CRL is a 3.45km twin-tunnel underground rail link up to 42 metres below the city centre transforming the downtown Waitematā Station (Britomart) into a twoway through-station that better connects the city's rail network.

Transport is one of the largest sources of greenhouse gas emissions in New Zealand. Emissions from transport are responsible for 17% of **New Zealand's gross emissions** (based on the Greenhouse Gas Inventory released in April 2022). Decarbonising the transport system will require changes to the way people travel.

CRL will double the number of people within 30 minutes of central Auckland, which is the country's biggest employment hub. When fully operational, **54,000 passengers an hour** will use CRL stations at peak times. This is the rail equivalent of an additional 16 lanes of road or three Auckland Harbour Bridges. Auckland rail capacity will at least double when CRL is fully operational.



- Reduction of greenhouse gas emissions and tonnes of waste diverted from landfill during the build phase.
- Km of new track.



Case Study: <u>Project</u> <u>iReX</u> – Ship Expenditure



Agency: KiwiRail

Primary Green Objective:

 Support decarbonisation of heavy transport and freight (<50g CO₂ per passenger-km for public transport vehicles, <25g CO₂ tonne-km for freight transport vehicles and a minimum 40% emissions reduction for hybrid ferries).

The iReX project will provide faster, safer, more enjoyable Te Moana o Raukawakawa (Cook Strait) journeys – and all with less environmental impact.

Two new purpose-built hybrid ferries will arrive in 2025 and 2026. The project is co-funded by the Crown and KiwiRail. For their portion, KiwiRail received **the world's first shipping loan to be certified by the <u>Climate Bond</u> <u>Initiative</u> (CBI).**

The new ferries will be powered by a diesel electric hybrid system that is much more fuel efficient and produces significantly lower CO_2 emissions. From day one the new ferries will reduce the Interislander ferry's emissions by approximately 40 per cent.



- Total fuel usage per annum.
- Associated carbon emissions.



Case Study: Kaipara Moana Remediation Programme



Agency: Ministry for the Environment

Primary Green Objective:

• Restore and protect freshwater ecosystems.

The programme will remediate and halt the degradation of the Kaipara Moana. The Kaipara Harbour (Kaipara Moana) is New Zealand's largest harbour and is suffering from decreased and degraded water quality issues.

Kaipara Moana is of global ecological and biological significance and profound importance to Māori.

Sediment is the main problem with an estimated 700,000 tonnes deposited into the harbour each year. In 2019, Kaipara was announced as the first exemplar catchment for the at-risk catchment project which is part of the Government's freshwater work programme.

The programme is expected to improve the health of waterways, lakes, and groundwater through:

- building 182 kilometres of stock exclusion fencing
- planting 423,000 riparian plants.



- Number of plants planted in riparian, lake, or wetland areas.
- Length (km) of stock exclusion fencing newly constructed or maintained.





Agency: Department of Conservation (DOC)

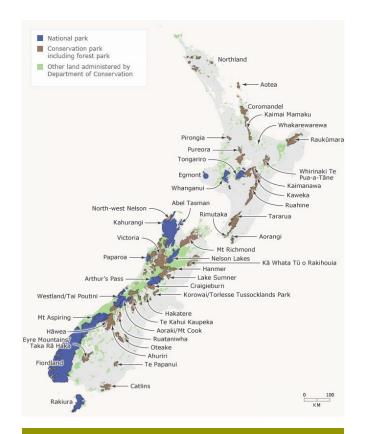
Primary Green Objectives:

- Restore and protect New Zealand's natural environment, including indigenous flora.
- Recover and preserve species, including indigenous fauna.

Programmes that the Department of Conservation undertake to manage New Zealand's natural heritage cover a broad range of biodiversity and species conservation work across land, fresh water, estuaries and wetlands, and New Zealand's large marine environment.

Programmes within this expenditure include:

- Marine Protected Areas research programme. New Zealand has 44 marine reserves that DOC administers and uses for research
- Protecting marine species including seabirds and Hector's and Māui dolphin
- Restoring the diversity of native plants and animals on conservation land, for example the Arawai Kākāriki "green waterways" wetland restoration programme
- Initiatives to manage Kauri dieback on conservation land
- Jobs for nature programmes, including the Mana in Kaimahi that focuses on native plant nurseries across the Tamaki region.



- Number of freshwater ecosystems restored.
- Number of threatened species across New Zealand's ecosystems that are managed to enhance their populations.



Case Study: <u>Government</u> <u>Investment in</u> <u>Decarbonising</u> <u>Industry</u> (GIDI), and <u>State Sector</u> <u>Decarbonisation</u> (SSDF) funds



Agency: Energy Efficiency & Conservation Authority (EECA)

Primary Green Objectives:

- Reduce reliance on fossil fuels and support the switch to low-emissions fuels.
- Reduce industry emissions and energy use.

The GIDI and SSDF focus on high impact decarbonisation projects across the private and public sector.

The GIDI has recently received expanded funding of around **\$650 million across four years** to focus on electricity transmission and distribution infrastructure upgrades to support fuel-switching, and the early adoption of high decarbonisation energy technologies.

The GIDI also helps businesses buy and install low emission, high efficiency electrical equipment used for industrial and commercial processes, including specifically electric motors and electric heat pumps.

The SSDF is the public sector equivalent of GIDI, focusing on **replacing fossil-fuel boilers in government buildings** (e.g. hospitals and tertiary institutions) with low-emissions alternatives and replacing government vehicle fleets with electric vehicles.



- Number of funded projects.
- Estimated carbon emission reduction.



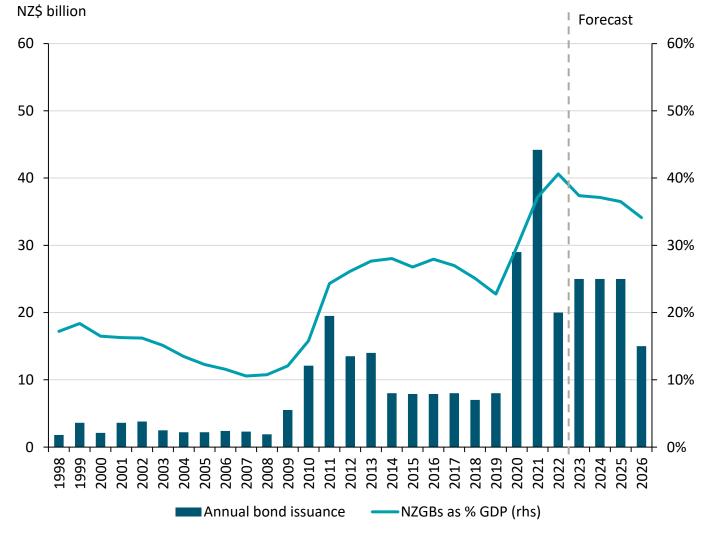


Funding Strategy





New Zealand Government Bond (NZGB) borrowing programme





Features of New Zealand Government Green Bonds

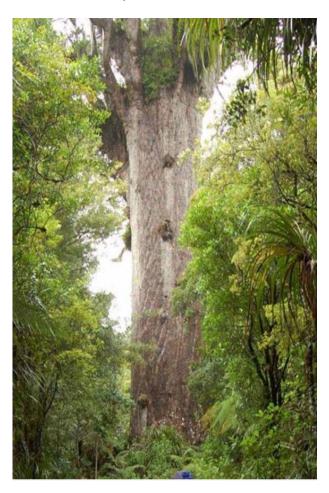
Alongside conventional Nominal Bonds and Inflation-Indexed Bonds, Green Bonds are expected to be an important and enduring part of the New Zealand Government Bond portfolio.

Key similarities to nominal NZGBs

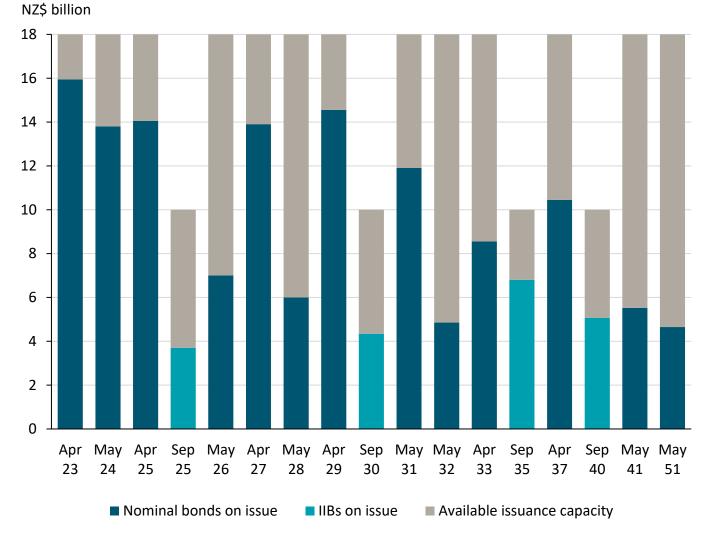
- Legal format
- Semi-annual coupon payments
- Issuance methods: syndication and tender
- Liquidity considerations

Differences

- Use of proceeds
- Additional information: <u>Green Bond</u> <u>Framework and Second Party Opinion</u>
- Additional reporting: Allocation reporting and Impact reporting











Support to maximise liquidity

Focus on building liquid lines

- Term debt is only issued in NZD.
- Tender issuance is focused into benchmark lines in order to build volumes quickly to at least NZ\$4 billion.
- In addition, new bond lines are launched via syndication to ensure a sizeable volume of the line is on issue from initiation.

Help recycle capital further out yield curve

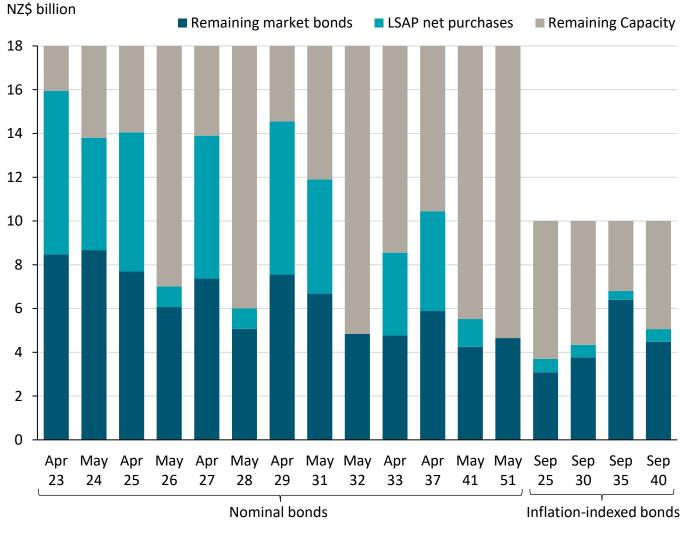
NZDM generally repurchases bonds prior to maturity to facilitate recycling proceeds further out along the yield curve. Primary market access framework

To be eligible to be a registered tender counterparty, an intermediary must play a significant role in intermediation of NZGS to investors and commit to supporting secondary market liquidity and price transparency.





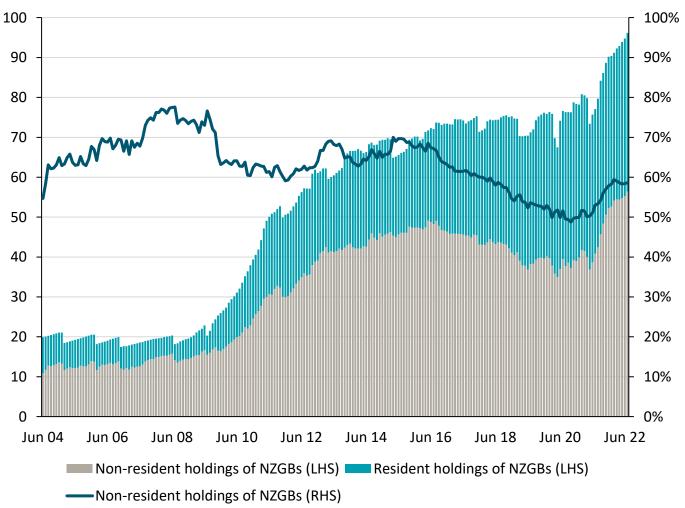
LSAP NZGBs expected to be unwound by mid-2027





Strong offshore demand for NZGBs

NZ\$ billion







Economic and Fiscal Outlook





Economic and Fiscal Outlook Summary

June years	2021	2022	2023	2024	2025	2026
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Real production GDP (annual average % change)	5.3	1.7	4.2	0.7	1.6	2.5
Unemployment rate (June quarter)	4.0	3.1	3.3	4.4	4.8	4.7
CPI inflation (annual % change)	3.3	6.7	5.2	3.6	2.7	2.2
Current account (annual, % of GDP)	-3.3	-6.7	-6.4	-4.9	-4.0	-3.6
Fiscal measures (\$billions)						
Core Crown tax revenue	98.0	103.8	116.1	122.7	129.9	138.5
Core Crown expenses	107.9	128.4	127.1	131.1	134.1	138.2
Total Crown OBEGAL ¹	-4.7	-19.0	-6.6	-2.6	2.6	7.0
Core Crown residual cash	-13.8	-31.8	-29.3	-9.3	7.9	17.7
Net debt	35.9	61.2	75.0	83.6	76.4	69.5
As a percentage of GDP	10.5	16.9	18.7	19.9	17.3	15.0
Total borrowings	162.6	200.5	230.6	245.1	243.0	248.2
Net worth attributable to the Crown	151.2	123.9	122.4	125.9	135.1	149.1

2021 2022

2022

2024

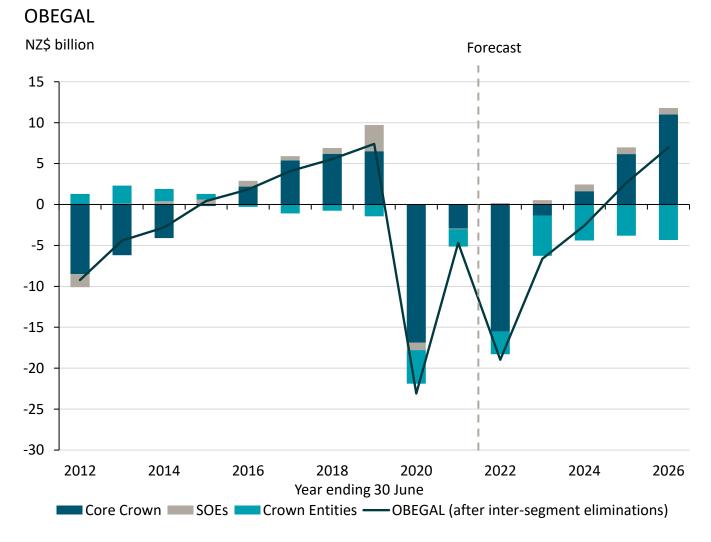
2025

2026

Note 1: Operating balance before gains and losses.

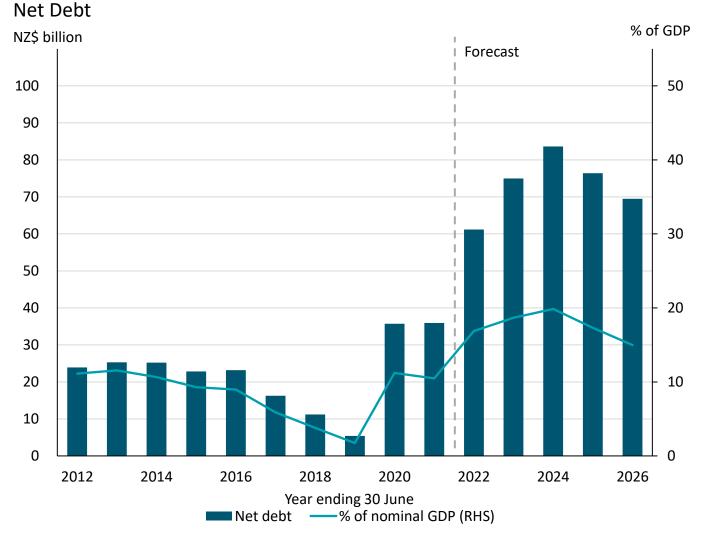


History of strong fiscal discipline, with net debt peaking in 2023/24 before declining





History of strong fiscal discipline, with net debt peaking in 2023/24 before declining







Strong credit profile

Rating Agency	Domestic Currency	Foreign Currency	Latest update
Moody's Investors Service	AAA (stable outlook)	AAA (stable outlook)	21 April 2022
S&P Global Ratings	AAA (stable outlook)	AA+ (stable outlook)	25 February 2022
Fitch Ratings	AA+ (stable outlook)	AA+ (stable outlook)	9 September 2022





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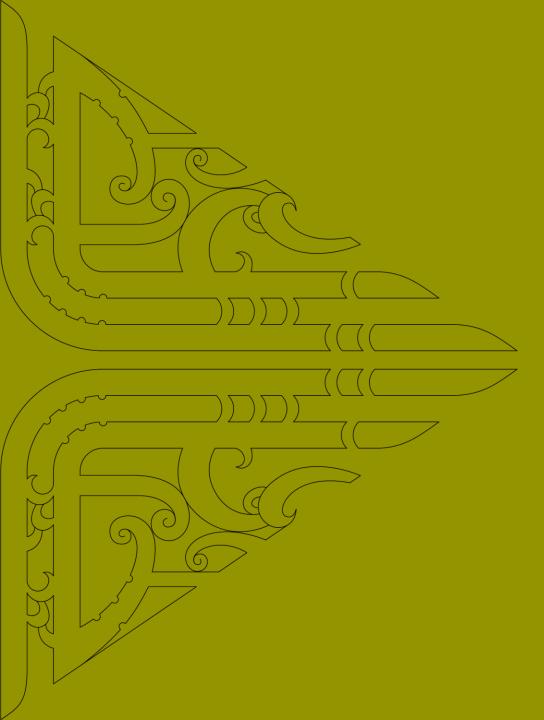
The Framework discussed in this presentation will not form part of the contractual terms of any Green Bonds. If:

- the Treasury fails to allocate the proceeds of Green Bonds in the manner described in the Framework or fails to comply with the Framework or related matters;
- any Green Bonds cease to satisfy the ICMA Green Bond Principles;
- the Government undertakes non-eligible projects outside of this Framework; or
- the Treasury fails to notify investors that any Green Bonds have ceased to be labelled as 'green' as described, then

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Te Kāwanatanga o Aotearoa New Zealand Government