

## Part 2: The Balance Sheet by Numbers

This section provides a detailed description of the composition of the Crown's balance sheet and discusses how it is expected to change in the future. The substantial component, Balance Sheet Performance, examines the composition and quality of Crown assets and liabilities, and their effectiveness at meeting government objectives, from a sector by sector perspective.

# Chapter 3: The Crown Balance Sheet

- Introduction
- The Crown's balance sheet position
- Evolution of the Crown balance sheet

## Introduction

The Crown's balance sheet is split into assets (the things the Crown owns or has a right to) and liabilities (things the Crown owes, is obligated to pay for or has agreed to assume). The difference between the two represents the Crown's equity.<sup>10</sup>

At 30 June 2013 the value of the Crown's assets totalled \$244.4 billion, of which the main asset types were:

- ▶ property, plant and equipment (PP&E), such as land and buildings (\$109.8 billion)
- ▶ marketable securities and share investments (\$61.4 billion), and
- ▶ tax receivables and student loans (\$16.5 billion).

Meanwhile, the value of the Crown's \$174.4 billion of liabilities primarily consisted of:

- ▶ borrowings (\$100.1 billion)
- ▶ insurance liabilities (\$37.7 billion), and
- ▶ retirement liabilities (\$11.9 billion).

Table 3.1 sets out the Crown's balance sheet as at 30 June 2013, the forecast movement in the balance sheet through to June 2018, based on 2013 HYEPU assumptions, and the balance sheet as at 2003 and 2008 to provide historical comparisons.

What this shows is that over the past ten years the value of the Crown's assets rose by \$144.6 billion, or 145%, while its liabilities increased by \$98.3 billion, or 129%. Over the forecast period this growth is expected to plateau and remain at a more constant level.

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<sup>10</sup> "Net worth" and "equity" may be viewed as the same concept.

## The Crown's balance sheet position

Table 3.1 describes the Crown's past, present and forecast balance sheets.

**Table 3.1** – The Crown's balance sheet

**STATEMENT OF FINANCIAL POSITION**  
as at 30 June

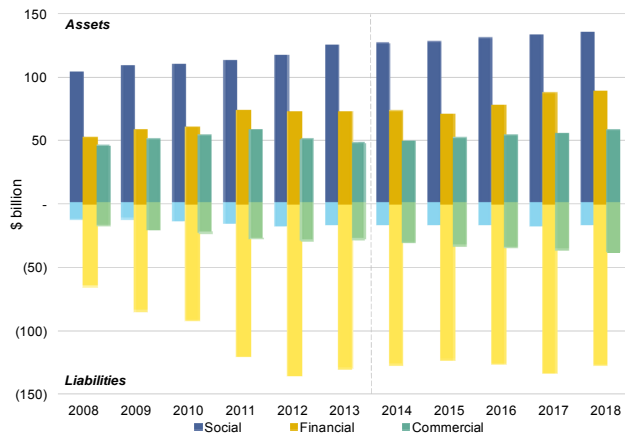
	2003	2008	2013	2014	2015	2016	2017	2018
	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Assets</b>								
Cash and cash equivalents	2,732	3,804	14,924	10,221	9,535	9,236	9,117	9,296
Receivables	10,143	14,158	19,883	18,968	17,909	18,191	18,642	19,090
Marketable securities, deposits and derivatives in gain	16,572	41,189	44,000	44,522	40,429	45,246	53,732	52,549
Share investments	4,734	12,964	17,359	21,289	23,044	24,747	26,511	28,365
Advances	6,300	12,948	22,613	24,359	26,268	28,188	29,780	31,295
Inventory	840	964	1,140	1,148	1,189	1,296	1,267	1,263
Other assets	576	1,663	2,295	2,268	2,366	2,404	2,385	2,377
Property, plant and equipment	52,667	103,329	109,833	113,277	115,464	117,316	118,833	119,899
Equity accounted investments	4,212	8,065	9,593	9,876	10,130	10,331	10,478	10,631
Intangible assets and goodwill	1,075	1,751	2,776	2,878	2,872	2,829	2,788	2,761
Forecast for new capital spending	-	-	-	206	773	1,589	2,539	3,439
Top-down capital adjustment	-	-	-	(450)	(625)	(800)	(925)	(1,050)
<b>Total assets</b>	<b>99,851</b>	<b>200,835</b>	<b>244,416</b>	<b>248,562</b>	<b>249,354</b>	<b>260,573</b>	<b>275,147</b>	<b>279,915</b>
<b>Liabilities</b>								
Issued currency	2,895	3,530	4,691	4,936	5,084	5,237	5,394	5,556
Payables	9,208	10,895	11,160	11,955	12,103	13,238	13,971	13,395
Deferred revenue	-	1,292	1,714	1,695	1,733	1,740	1,746	1,794
Borrowings	38,285	46,110	100,087	104,354	104,608	110,532	117,271	112,282
Insurance liabilities	9,155	20,484	37,712	33,430	31,140	30,848	31,738	33,136
Retirement plan liabilities	13,857	8,257	11,903	10,880	10,501	10,192	9,925	9,669
Provisions	2,670	4,753	7,138	6,417	6,176	5,939	5,866	5,848
<b>Total liabilities</b>	<b>76,070</b>	<b>95,321</b>	<b>174,405</b>	<b>173,667</b>	<b>171,345</b>	<b>177,726</b>	<b>185,911</b>	<b>181,680</b>
<b>Total assets less total liabilities</b>	<b>23,781</b>	<b>105,514</b>	<b>70,011</b>	<b>74,895</b>	<b>78,009</b>	<b>82,847</b>	<b>89,236</b>	<b>98,235</b>
<b>Net worth</b>								
Total net worth attributable to the Crown	23,687	105,132	68,071	69,165	72,242	77,040	83,401	92,377
Net worth attributable to minority interest	94	382	1,940	5,730	5,767	5,807	5,835	5,858
<b>Total net worth</b>	<b>23,781</b>	<b>105,514</b>	<b>70,011</b>	<b>74,895</b>	<b>78,009</b>	<b>82,847</b>	<b>89,236</b>	<b>98,235</b>

## Classifying the Crown balance sheet

For the analytical purposes of this Statement, components of the accounts have been classified into one of three broad functional classes – Social, Financial, or Commercial – selected to capture the primary purpose for holding the asset or liability.

This classification, while useful, is somewhat arbitrary as some assets or liabilities may have multiple purposes. For example, student loan assets have been classified as being social assets because they fulfil a social purpose to facilitate access to tertiary education, even though they may be seen as being of a financial nature.

**Figure 3.1** – Crown balance sheet by functional class



Source: The Treasury

<b>Social</b>	Assets and liabilities held by the Crown primarily to provide public services or to protect assets for future generations. These include, for instance, roads, schools, and the national parks. For the purposes of this document, social assets also include tax receivables and student loans managed by the Inland Revenue Department, and Crown companies that do not have purely commercial objectives such as Crown Research Institutes.
<b>Financial</b>	Assets and liabilities held by the Crown to finance or prefund government expenditure and to recognise the obligation for future expenditure. This category is comprised of the Crown Financial Institutions (CFIs), the Reserve Bank of New Zealand, and government borrowing via the Treasury's New Zealand Debt Management Office. <sup>11</sup>
<b>Commercial</b>	A portfolio of companies held by the Crown with commercial objectives. The companies are largely self-sustaining entities operating in openly competitive environments. This category is comprised of all the MOM companies and SOEs, excluding the land held within New Zealand Railways Corporation which is classified as a social asset. TVNZ and Public Trust are treated as commercial entities due to their primary purpose being commercial in nature.

<sup>11</sup> CFIs include New Zealand Superannuation Fund, Accident Compensation Corporation, Earthquake Commission and the Government Superannuation Fund.

## Evolution of the Crown balance sheet

The Crown's balance sheet size and composition has evolved through time in response to changes in economic conditions and government objectives. Not only has the total value of assets and liabilities grown over time, the split between Social, Financial and Commercial portfolios has also changed.

### Assets

The Crown's asset base has grown significantly since the first balance sheet was produced in 1992, both in value and as a percentage of GDP. This is largely as a result of increases in the carrying value of Crown-owned land and buildings, and growth in financial assets, such as marketable securities and share investments.

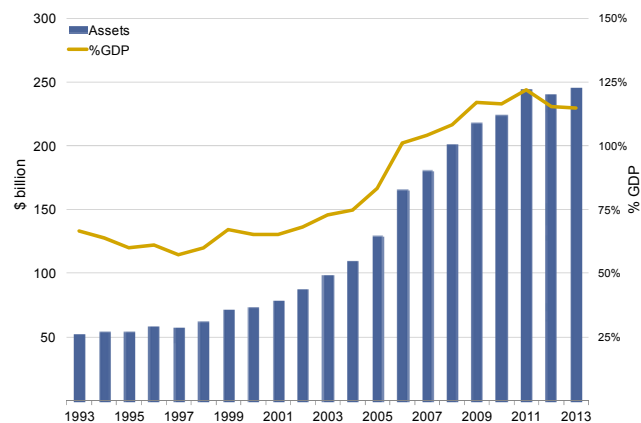
The Social asset portfolio has traditionally been the largest, and this remains the case. Social

assets are predominantly the property, plant and equipment used to meet government objectives. The increase in the value of land and buildings held was due to acquisitions as well as changes in the valuation of existing assets. The effect of revaluations can be seen in the asset revaluation reserve held on the balance sheet, reflecting the impact of non-cash changes in asset values, which has increased by \$41.4 billion since 2003.

The value of financial assets increased primarily driven by changes to the NZSF and Accident Compensation Corporation (ACC). Over the past decade there has been a significant increase in the value of financial assets due to the prefunding of future policy driven expenses through the CFIs. NZSF began investing in 2003, and the asset portfolio of ACC has increased as it focused on becoming fully funded. Financial assets are of a different nature to Social assets and expose the Crown to a different range of risks that it had previously not needed to consider or respond to.

The Crown's investment in Commercial assets is the smallest of the three functional classifications and consists largely of property, plant and equipment in the electricity sector, and financial assets held by Kiwibank. The value of property, plant and equipment has increased through acquisitions and revaluations, while Kiwibank assets have grown in line with their customer base. It is important to note that the

**Figure 3.2** – Crown assets



Source: The Treasury

Government Share Offer Programme has reduced the Crown's interest in the MOM companies.<sup>12</sup>

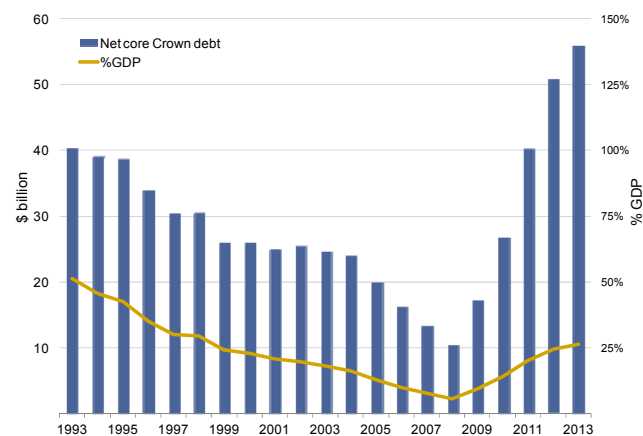
## Liabilities

Crown liabilities consist of government borrowings, commercial borrowing by SOEs, insurance liabilities and contractual retirement obligations.

Government borrowings make up the greatest proportion of liabilities. Government borrowing is used for capital acquisition and financing operating deficits. The Crown uses a fiscal indicator, net core Crown debt, as a key measure of fiscal performance and resilience.<sup>13</sup> At 30 June 2013 net core Crown debt stood at \$55.8 billion (26.3% of GDP).<sup>14</sup>

The Crown's debt position has changed significantly over time due to fiscal policy and economic conditions. There was a 20 year period of increasing debt (1972-1992) which was followed by a long period of debt reduction (1992-2008). Over the past five years the debt-to-GDP position of the Crown has been weakening following the global financial crisis (GFC) and Canterbury earthquakes, albeit from a strong position in 2008 (5.5% of GDP).

**Figure 3.3 – Net core Crown debt**



Source: The Treasury

Insurance liabilities have increased as a result of growth in the ACC scheme and the Canterbury earthquakes. The Government Superannuation Fund (GSF) has remained relatively constant due to the scheme being closed to new members since the early 1990s. In aggregate, commercial entity borrowings make up a small proportion of Crown liabilities.

## Net worth attributable to the Crown

Net worth attributable to the Crown (NWAC) is an alternative measure of the Crown's long-term solvency and financial sustainability. NWAC is calculated as being the Crown's total assets less its total liabilities and minority interests, and includes many assets and liabilities that are not considered as part of the net core Crown debt measure.

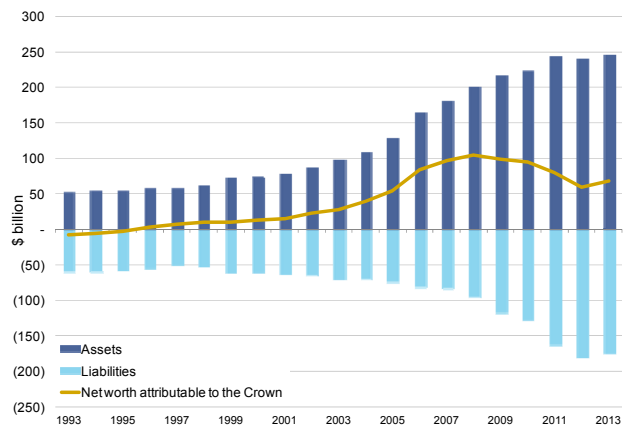
<sup>12</sup> Reflected in the growth in net worth attributable to minority interests.

<sup>13</sup> This is calculated by taking the net position of gross Sovereign-issued debt and the core Crown's financial assets excluding advances and the NZSF's financial assets.

<sup>14</sup> The government has stated its objective is to lower net debt to no higher than 20% of GDP by 2020.

The Crown’s NWAC turned around from a negative position in 1993, up until the impacts of the GFC started to be felt on the Crown’s balance sheet from 2009. This was driven largely by the growth in core Crown debt to fund operating deficits. The 2013 financial year saw NWAC increase for the first time since 2008, primarily due to gains in financial assets.

**Figure 3.4 – Net worth attributable to the Crown**

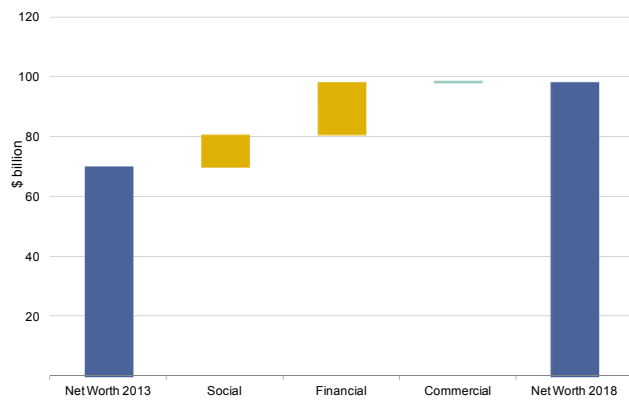


Source: The Treasury

### The balance sheet in the future

Over the next five years, the total net worth of the Crown is expected to grow by \$28.2 billion driven by operating surpluses and financial asset revaluations. By 2018, assets are forecast to grow by \$35.5 billion and liabilities \$7.3 billion.<sup>15</sup>

**Figure 3.5 – Crown total net worth: 2013-2018**



Source: The Treasury

Social assets are expected to grow by \$10.7 billion which can be attributed largely to an increase in the value of the state highway network and Inland Revenue Department (IRD) receivables.

Generally, social assets are largely funded through tax revenues or Crown borrowing, however state highway related expenditure is also funded through levies and road user charges. Recently there has been a focus on recycling capital from the balance sheet. The Future Investment Fund will be used to fund capital spending on social assets through to Budget 2016.<sup>16</sup>

Financial assets are expected to grow by \$17.5 billion reflecting investment growth in CFIs – mainly the NZSF and ACC. Expected returns on investment will support NZSF and ACC growth. In the case of ACC, levy revenue will also fund asset purchases.

<sup>15</sup> Over the forecast period, assets are expected to decrease from 115% to 104% of GDP and liabilities are expected to decrease from 82% to 67% of GDP. However, EFU forecasts do not include the impact of revaluations on PP&E which in the past have been significant. See HYEUFU 2013 for the Treasury’s forecasting assumptions.

<sup>16</sup> Funded from the proceeds from the Government Share Offer Programme.

Within the Commercial portfolio there is expected to be an increase in both assets and liabilities that largely offset each other. These primarily relate to the continued growth in Kiwibank mortgages funded through increases in third party funding such as customer deposits.

The Crown's financial liabilities are also expected to increase, as borrowing increases to meet the Crown's cash deficits over this period. These are partially offset by a reduction in EQC liabilities as the claims resulting from the Canterbury earthquakes are expected to be settled by 2018.

### Future investment

The majority of Crown capital (and operating) spending is funded from the general pool of Crown revenue, including tax income and the proceeds of Crown borrowing. This makes it difficult to directly apportion specific funding sources towards specific projects. In certain circumstances, money collected will be allocated directly to certain expenditure areas – this can be most clearly seen with transport and ACC funding.

Table 3.2 outlines forecast investment expenditure by type and the manner in which the Crown is expected to accumulate the funding required.

**Table 3.2** – Capital expenditure funding

	2014	2015	2016	2017	2018
	\$b	\$b	\$b	\$b	\$b
<b>Opening cash balance</b>	<b>14.9</b>	<b>10.2</b>	<b>9.5</b>	<b>9.2</b>	<b>9.1</b>
Foreign exchange losses on opening cash	(0.3)	-	-	-	-
Cash flows from operations	1.1	4.1	7.7	9.9	11.7
Cash flows from financing activities	7.1	1.4	6.5	7.1	(4.7)
Government share offer programme	2.5	0.6	-	-	-
<b>Cash available for investment</b>	<b>25.3</b>	<b>16.3</b>	<b>23.7</b>	<b>26.2</b>	<b>16.1</b>
Net purchase of physical assets	(7.4)	(6.5)	(6.1)	(5.5)	(5.1)
Net purchase of intangible assets	(0.6)	(0.5)	(0.4)	(0.4)	(0.4)
Net purchase of shares and securities	(5.3)	2.4	(5.8)	(9.0)	0.8
Net issues of advances	(2.1)	(1.9)	(1.6)	(1.5)	(1.4)
Other investing activities	0.3	(0.3)	(0.6)	(0.7)	(0.7)
<b>Net cash flows from investing activities</b>	<b>(15.1)</b>	<b>(6.8)</b>	<b>(14.5)</b>	<b>(17.1)</b>	<b>(6.8)</b>
<b>Closing cash balance</b>	<b>10.2</b>	<b>9.5</b>	<b>9.2</b>	<b>9.1</b>	<b>9.3</b>



Table 3.3 provides a breakdown of the forecast gross additions to physical assets by their respective sectors.

**Table 3.3** – Property, plant and equipment additions – by sector

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
	<b>\$b</b>	<b>\$b</b>	<b>\$b</b>	<b>\$b</b>	<b>\$b</b>
Transport	2.6	2.5	2.5	2.5	2.6
Economic	1.3	0.7	0.8	0.9	0.8
Education	0.7	0.8	0.7	0.7	0.7
Health	0.7	0.6	0.5	0.5	0.4
Defence	0.5	0.6	0.4	0.5	0.5
Other	2.1	1.8	2.0	1.5	1.4
<b>Total forecast additions</b>	<b>7.9</b>	<b>7.0</b>	<b>6.9</b>	<b>6.6</b>	<b>6.4</b>

Further information on asset movements can be found in the following chapter.



# Chapter 4: Balance Sheet Performance

***...Improving the understanding of assets and liabilities will enable the Crown to maximise their performance and improve outcomes...***

- Overview
- Measuring performance
- Social assets
- Financial assets and liabilities
- Commercial portfolio

## Overview

This chapter describes the financial and non-financial performance measures of the Crown's assets and liabilities, broken down into the primary functional classification of the entities which hold them. Each section details the consolidated value of the assets and liabilities that make up each sector at 30 June 2013 as per the FSGNZ. They also discuss the usage, performance, expected trends and opportunities and challenges facing the Crown's assets and liabilities.

Understanding what the Crown owns and owes, and how it uses those assets and liabilities to provide services, enables improved performance, more informed views on whether past resource allocations remain appropriate, and better decisions to be made for the future.

Globally, public sector organisations struggle to develop robust means to measure asset and liability performance, and New Zealand is no exception. There needs to be an improvement in the type of information collected around the balance sheet, and how that information is used to make effective decisions.

While Financial and Commercial entities are largely assessed against their returns, Social agencies have traditionally been more focused on operating expenditure and outcomes and need better non-financial performance information. A better understanding of Crown asset and liability contributions to government objectives will improve management of the Crown's balance sheet.

## Measuring performance

### Why measure performance?

Robust performance measurement is vital to effective asset management. It allows an organisation to assess how well it is meeting its expectations and objectives, at both an organisational and an asset level. It provides a method of comparing performance across entities, and a tool for identifying and assessing areas for improvement. This can lead to greater utilisation of Crown assets and helps ensure that assets meet needs more effectively. This in turn will allow governments to provide more services at lower cost.

Ideally, a single set of performance measures would allow for comparison across the different areas of government to enable better allocation of resources to the areas of highest need. Realistically this is difficult due to the diverse nature of Crown assets and liabilities and the different objectives they are used to meet. It is therefore more important to align performance measures with the asset or liability's purpose. 'Good' performance will differ across asset and liability types and, even where assets may have similar characteristics, what may be important for an asset providing one type of service may be different for an asset providing an alternative service. For example, police cars are of little value unless in use while military equipment confers national security benefits whether usage is high or low.

This chapter focuses on how performance aligns with the purpose of ownership, and where possible draw links between asset usage and outcomes. These links can be difficult to determine due to assets often being held for the indirect purpose of enabling service provision – a means to an end – rather than being directly responsible for achieving outcomes.

The level of analysis in this chapter is restricted by the quality of agency asset management and the information that they are capable of providing. It may not necessarily reflect the analysis that would best serve better decision making.

### Measuring performance

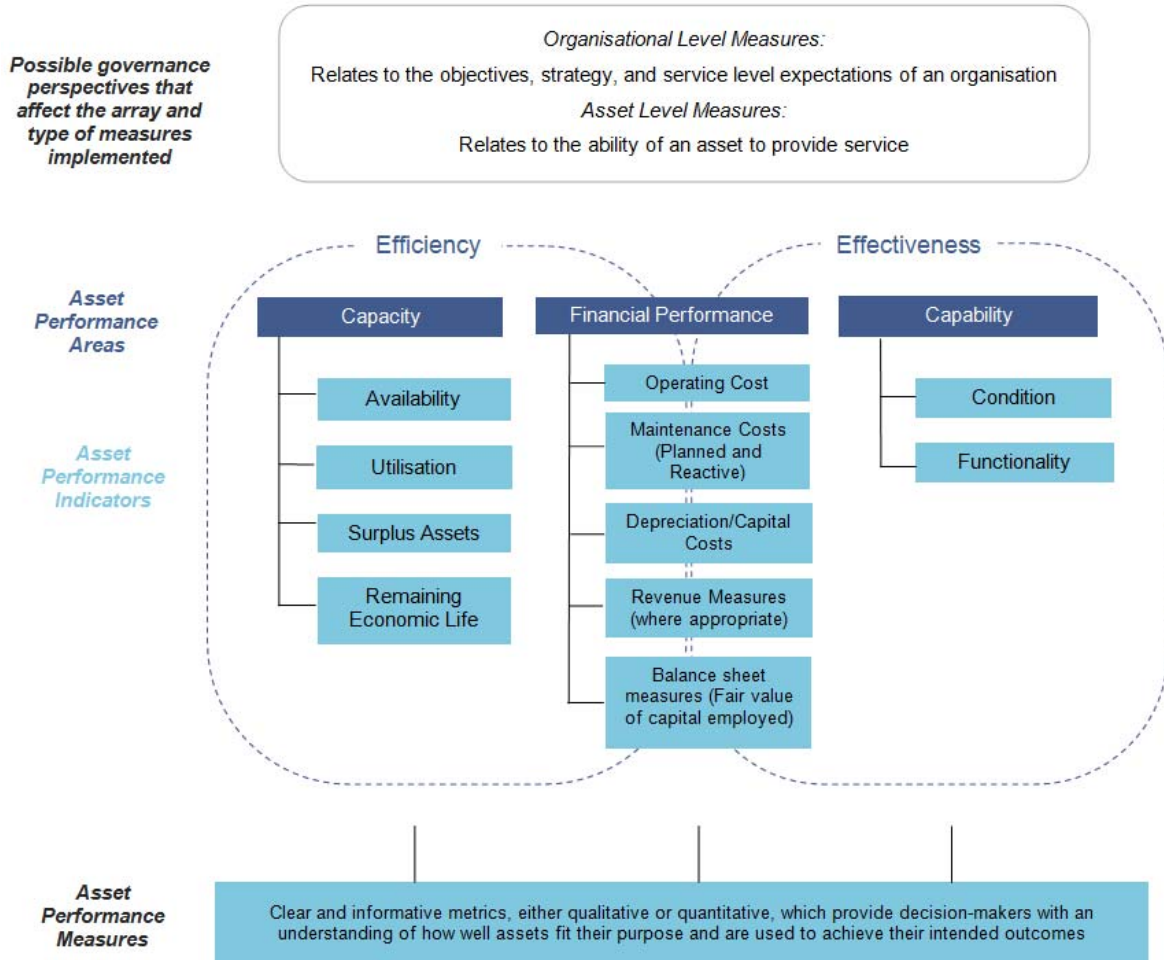
Performance measures broadly fall under three areas: Capacity, Capability and Financial Performance.

- ▶ **Capacity** reflects the productive potential of an asset and can be assessed against current and expected demand needs. Indicators of asset availability and utilisation enable an organisation to determine how well an asset is being used compared to its potential use, while measures of economic life provide information around the expected useful lives for assets to provide services.
- ▶ **Capability** represents the ability of an asset to provide a level of service. The main indicators for capability generally fall under classifications of functionality – whether the asset fits the purpose it is intended for – and condition – the physical state of the asset.



- ▶ **Financial Performance** relates to the incomes and expenses directly associated with holding an asset or liability.

**Figure 4.1** – Social asset reporting framework



Source: The Treasury

Measures and indicators should not necessarily be reviewed in isolation, and the interaction between different measures can provide a deeper understanding of asset performance.

### How well do public sector agencies do?

Financial and commercial assets are assessed directly against their returns to the Crown. Social agency performance measurement has largely focused on operating expenditure and its relationship to government service provision. Measuring and understanding the performance of social assets has been a relatively weak area for the public sector.

While benchmarking against other countries could provide a useful indication of performance, difficulties arise due to a lower level of transparency from administrations in other countries. Where information is available it is not necessarily an accurate comparison due to differences in demographic and geographic conditions, or different policy settings. This in itself shows that New Zealand is not alone in finding this challenging.

Many measures are input based, meaning that the focus is placed on the effort that is put into using the assets. A lot of the measures outlined in this chapter reflect this. Output based measures focus on what is achieved as a result of using the assets, and provides a better understanding on the effectiveness of having particular assets. This allows for better decisions around prioritising and rationalising what is owned and how it is used.

Asset ageing and expected future replacement timeframes enable the government to adequately plan capital expenditure needs over the medium to long term. While many agencies currently have such an understanding of these aspects of their assets there are still a few who had some difficulty in providing this basic information.

There is some information around asset utilisation, but there is significant room for improvement. Without understanding utilisation, it is difficult to determine whether assets are surplus to requirements or whether additional expenditure is likely to meet demand effectively or create surplus stock.

The understanding of the functionality of the Crown's assets, and how well they fit their intended purpose, is weak. Functionality shows how well placed an item is to meet needs. With an ageing asset base there is a risk that assets may be out of date to meet current and future service requirements.

### Future directions

At an agency level, there needs to be a much greater understanding of their assets, how they are currently being used, and how they are likely to be used in the future given changes in demand. This will require a higher level of information being collected at a detailed asset-specific level, with a stronger understanding of what metrics are suitable. This will then require a strategy on how to use that information to make more effective capital related decisions. A greater understanding of the impact that the capital base has on operating costs may also lead to greater cost savings in the long term.

Central agencies, and Ministers, need to improve their understanding of asset performance at a high level, through better monitoring and analysis of asset related information and an understanding of the implications for capital allocation across the wider state sector.

Future Investment Statements need to be able to provide a much richer view of balance sheet related performance. It is not until it is understood how the Crown's assets are contributing to meeting objectives that value for money can be assured.

### Area of focus

- ▶ Further develop and utilise metrics for the measurement and monitoring of the performance of Crown assets in meeting government objectives.



# Social Assets

## Purpose

Social assets are mainly managed by government departments and Crown entities.<sup>17</sup> They are held to support the delivery of core public services and to achieve government outcomes.

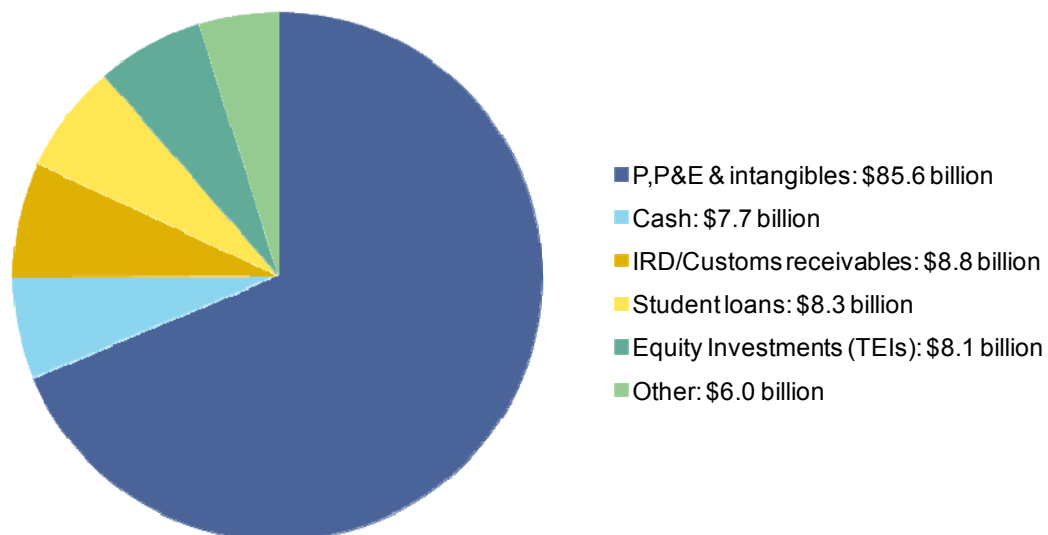
Government objectives change with time and it is important to regularly assess whether existing social assets are required or meet the needs that they are intended for. Due to their characteristics – predominantly relatively specialised property, plant and equipment – these assets may not be easy to divest where needed.

It is important to note that holding a social asset in itself does not guarantee that a public policy outcome is fully achieved as holding assets is not an end in itself – they are held to act as a platform to enable agencies to operate more effectively and to facilitate the advancement of public policy outcomes.

## Current holdings

As at 30 June 2013, the total value of the Crown's social assets was \$124.5 billion. Figure 4.2 outlines the composition of the social asset portfolio under the definitions used for financial reporting.

**Figure 4.2** – Social assets by type



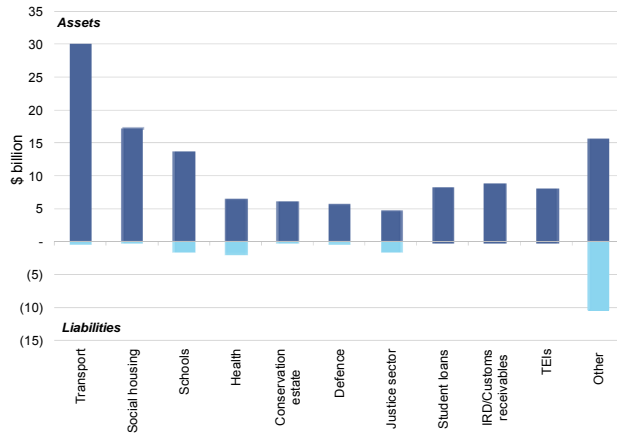
Source: The Treasury

<sup>17</sup> The social portfolio includes a small number of liabilities, such as accounts payable, mainly as a result of government department or Crown entity business operations.

Other assets primarily consisted of inventory and other receivables.

Figure 4.3 provides a breakdown of the value of social assets by sector. Almost half of the Crown’s social asset portfolio is held in three areas – transport, social housing, and primary and secondary schools.<sup>18</sup> The “Other” assets consist largely of cash holdings and PP&E across other social agencies. “Other” liabilities include current accounts payable balances and employee entitlement provisions.

**Figure 4.3 – Social assets and liabilities by sector**



Source: The Treasury

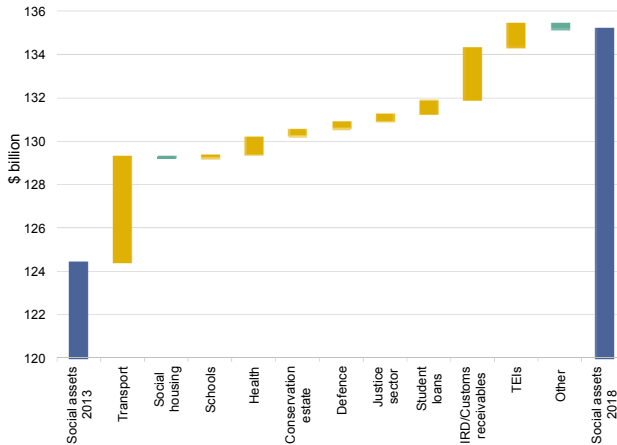
## Future holdings

Social assets are expected to grow from \$124.5 billion in 2013 to \$135.2 billion in 2018, an increase of 9%.

The major movements leading to this increase in the social assets are in four major areas:<sup>19</sup>

- ▶ A \$4.9 billion increase in the state highway network. This investment is expected to contribute 46% of the growth in social assets, primarily due to spending on Roads of National Significance.
- ▶ A \$2.5 billion increase in the value of IRD and Customs related receivables, due to higher expected tax revenues.
- ▶ A \$1.1 billion increase in the Tertiary Education Institutions, due to the capital expenditure programmes aimed at repairing and replacing existing assets.
- ▶ A \$0.9 billion increase in health investment primarily relating to expenditure on the Christchurch Hospital rebuild.

**Figure 4.4 – Forecast movements 2013-2018**



Source: The Treasury

<sup>18</sup> Transport assets primarily relate to state highways, but also include \$3.3 billion of rail network land.

<sup>19</sup> These movements do not include the impacts of possible future asset revaluations.

Long-term fiscal projections beyond 2018 suggest that the composition of social assets is likely to need to change over the next 30 years due to the implications of demographic changes.

This is likely to result in a greater need for healthcare facilities, although this may be offset by the implications of technological advances. There is expected to be greater demand for tertiary education facilities, while maintaining a relatively consistent level of primary and secondary schools.

A declining crime rate and changes in the justice system will have implications for the size and composition of assets in the sector. There will also be a need to increase defence force assets in the 2020s, as key strategic assets in the existing stock reach the end of their useful lives.

The geographical distribution of assets on the balance sheet is also likely to change, with increased urbanisation requiring reconfiguration of the existing stock – such as state houses and schools – from more provincial communities to cities to meet the shift in demand.

### Summary of performance

The majority of the Social assets are held to provide the Crown with a platform to deliver public services, and the performance of these assets is measured in terms of the capacity and capabilities that these assets give an agency to operate in an efficient and effective manner.

Historically, measurement and reporting of asset performance has been weak, but it has been improving across government recently. Agencies are gradually improving their asset measurement capabilities, some more so than others, but there is a need to integrate the understanding obtained from measuring performance into making better capital decisions, and how they relate to operating spending pressures.

Some key observations and issues identified relating to the social asset portfolio are:

- ▶ Changes in demographics have had a significant impact on the development and use of Crown assets in the past, and are likely to have significant implications in the future. Historically New Zealand's population was split across a wide array of smaller towns and cities, resulting in a need for a large number of smaller assets to provide services. Increased urbanisation has led to the Crown having assets that are surplus to needs, and resources could be more effectively used if the asset base is rationalised and aligned with demand expectations.
- ▶ The age of the social assets means that there is a specific need for careful asset management over the next 10-20 years. Capital spend on the back of the post-war baby boom has left New Zealand with a large number of old assets, and decisions will need to be made on whether these assets will need to be maintained or replaced to meet future service needs.



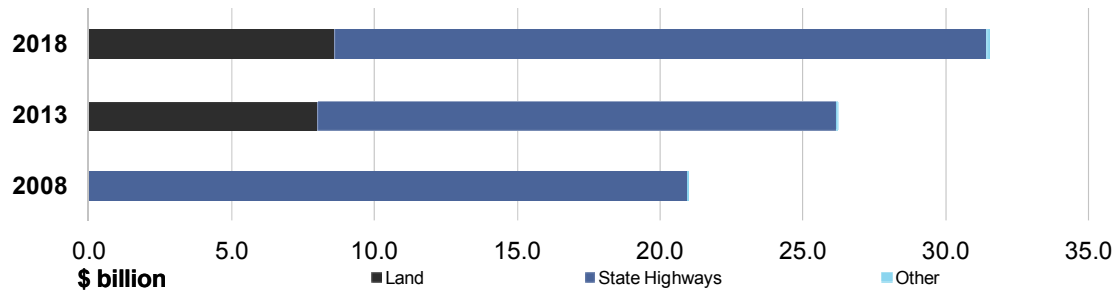
- ▶ Many Crown assets are not being utilised effectively. Under-utilisation is likely to lead to additional expenditure that could have otherwise been avoided, and can be remedied through a reprioritisation of assets to other uses or through divestment.
- ▶ Agencies may need to consider alternative methods to achieve outcomes. This could include using existing assets in a different manner, increasing cooperation with other agencies, or considering arrangements other than asset ownership.

The remainder of this chapter assesses the Crown's major social assets in greater detail.<sup>20</sup>

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<sup>20</sup> Note that the headline charts describing the values for some sectors differ from the values in Figure 4.3 because they describe PP&E and intangibles which are the major asset types in that sector. This applies to State Highways, Social Housing, Schools, Conservation Estate, Defence, Healthcare, and the Justice Sector

## State Highways



### Asset profile<sup>21</sup>

State highways are those roads that are strategically important in moving people and goods nationwide and are a key element of New Zealand’s transport infrastructure. The state highway network is managed by the New Zealand Transport Agency (NZTA) and consists of 10,894 kilometres of state highways and 4,230 bridges, making up around 12% of New Zealand’s roads and accounting for around half of the 40 billion kilometres travelled on New Zealand roads each year.

These roads are Crown-owned, and exclude local roads which are managed by local authorities and serve the purpose of moving goods and people within a region.

### Performance

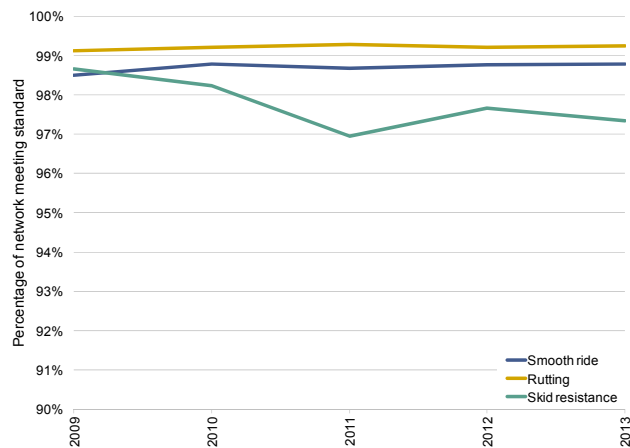
The performance of the state highway network is assessed against the ability to move people and freight efficiently and effectively throughout New Zealand. This involves managing the capacity and reliability of the network to meet demand.

#### Condition

The condition of the roads is assessed by the NZTA through a number of measures:

- ▶ Smooth ride: the percentage of travel on the network that is made on a surface smoother than a defined roughness standard

Figure 4.5 – Road condition to standard



Source: NZTA

<sup>21</sup> Note that land and state highway values were not distinguished separately in 2008.

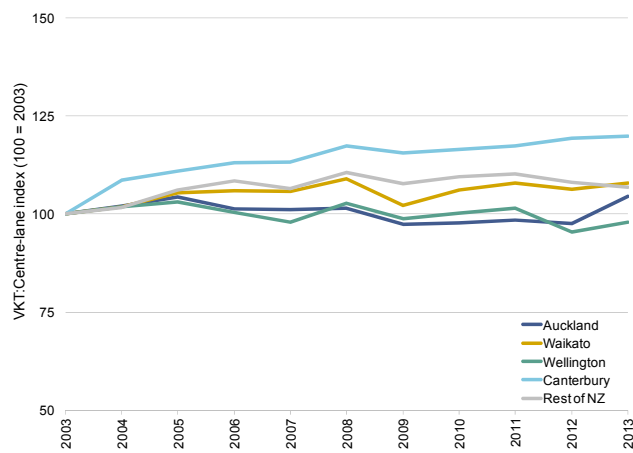
- ▶ Rutting: the proportion of the network that has rutting shallower than 20mm, and
- ▶ Skid Resistance: the percentage of travel on the network that is on a surface above a specified skid threshold based upon meeting surface texture standards.

Most travel in New Zealand occurs on smooth surfaces and meets skid resistance standards. Over the past five years there has been a slight improvement in the level of rutting over the road network.

**Capacity utilisation**

Capacity utilisation examines the level of use of the road network and can provide an indication of pressure on the network. It can be measured as the number of vehicle kilometres travelled (VKT) per network kilometre. Over the past ten years the trend shows an initial slight increase in utilisation, largely due to an increase in VKT outside of the Auckland and Wellington regions, but from around 2006 onwards the pressure on the network has been relatively constant.

**Figure 4.6 – VKT:Centre-lane index**

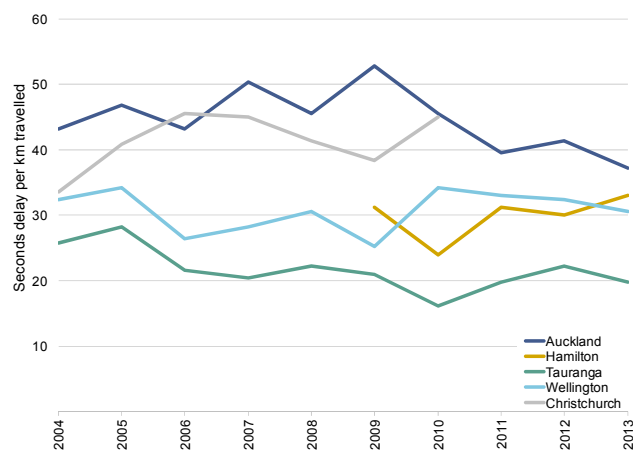


Source: NZTA

**Congestion**

Congestion also provides a reflection of the ability of the road network to meet traffic demand pressures. The congestion levels are measured in the five major metropolitan areas – Auckland, Hamilton, Tauranga, Wellington and Christchurch – based on the seconds delay per kilometre travelled.<sup>22</sup> Over the past ten years, there have been fluctuations across the five areas, with the notable improvement being in Auckland since 2009, where travel times have decreased despite population increases.

**Figure 4.7 – Seconds delay per kilometre – by region**



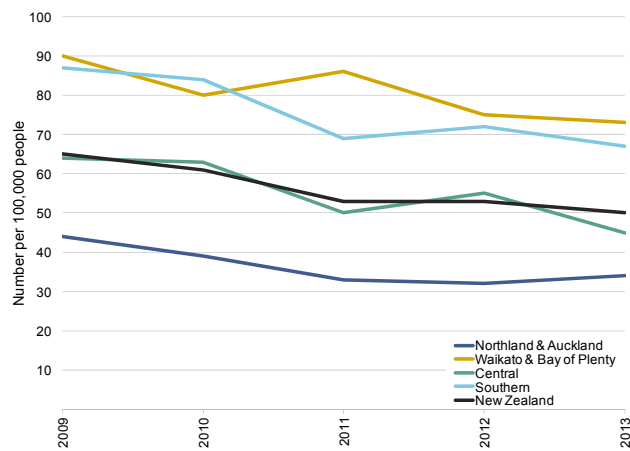
Source: NZTA

<sup>22</sup> Based on the annual March surveys of morning peak periods. This measure has not been applied to Christchurch subsequent to the earthquakes.

### Road safety

While it plays a significant part in road safety, management of the road network is not the only contributor to lower deaths and injuries. The Safer Journeys strategy launched in 2010 focused on creating a road system that was increasingly free of fatalities and serious injury by creating safer roads and roadsides, safer speeds, safer vehicles and safer road use.

**Figure 4.8** – Fatalities or serious injuries per 100,000 people



Source: NZTA

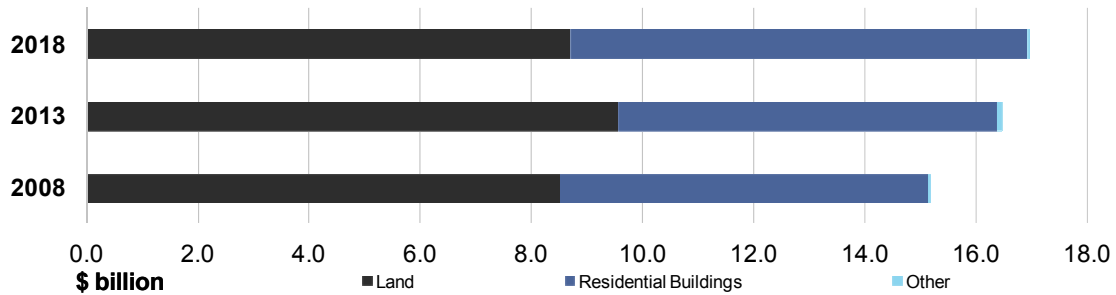
The level of fatalities or serious injury in crashes provides a measure of how safe the road system is. While there are significant differences between regions, overall there has been a declining trend over the past ten years.

### Opportunities and challenges

In the future the population will be larger and, on average, be older than it is today. In addition, the population will be more urbanised and made up of a larger number of smaller families living in close proximity to each other. These trends, if they play out, will be felt most strongly in New Zealand’s major metropolitan areas, especially in Auckland, Waikato and the Bay of Plenty, and are likely to increase overall demand for transport solutions in these areas.

The state highway network is expected to be the biggest area of growth in the social asset portfolio in the short term largely due to proposed expenditure on the Roads of National Significance programme. With any large capital works project of this nature, there is a need to ensure that there will be adequate realisation of benefits in light of the costs incurred.

## Social Housing



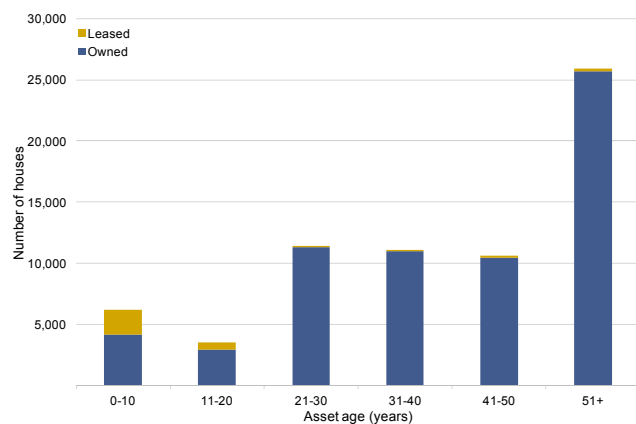
### Asset profile

Social housing provides accommodation for people who qualify under the social allocation system criteria. Generally this captures those who face multiple disadvantages in attempting to access housing in the private rental market.

Housing New Zealand Corporation (HNZC) manages its housing portfolio on behalf of the Crown. It receives a market rent for its tenanted properties, made up of a rental income contribution from tenants and an Income Related Rent Subsidy (IRRS) from the Crown for eligible tenants.

HNZC managed 68,710 properties at the end of the 2013 financial year, almost half of which are located in Auckland. The portfolio consisted of 65,528 owned properties and 3,179 properties leased from private investors. HNZC’s housing stock has an average age of 41 years, which is broadly comparable to the average age of the housing stock of New Zealand (42 years).

**Figure 4.9 – Age profile of house portfolio**



Source: HNZC

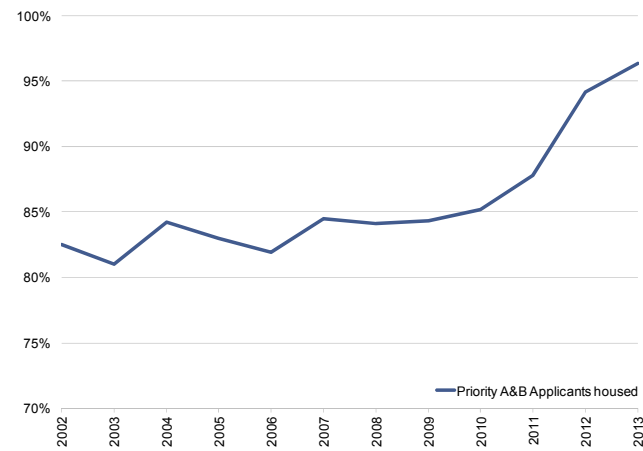
### Performance

HNZC has a number of key performance requirements, with the general focus relating to providing housing to those most in need for the duration of their need in the most efficient and effective manner. There are a number of structural factors which are changing the need profile of social housing. Some of these are demographic – such as an increasing elderly population. Others are geographical – such as the growth of cities such as Auckland and Manukau. HNZC needs to constantly refresh its portfolio and future asset management strategy to ensure that it is providing value for money to the Crown.

### Access to housing

As tenants' needs and circumstances change over time, existing tenants may no longer be those with the greatest need for that housing. Over the past ten years there has been a steady improvement in the proportion of priority applicants being housed each year. In 2011 the criteria for access to social housing were changed, with only those who qualify as A or B being given access to housing.<sup>23</sup> This helps explain the increase in the number of priority access households in the portfolio.

Figure 4.10 – Priority A&B applicants housed



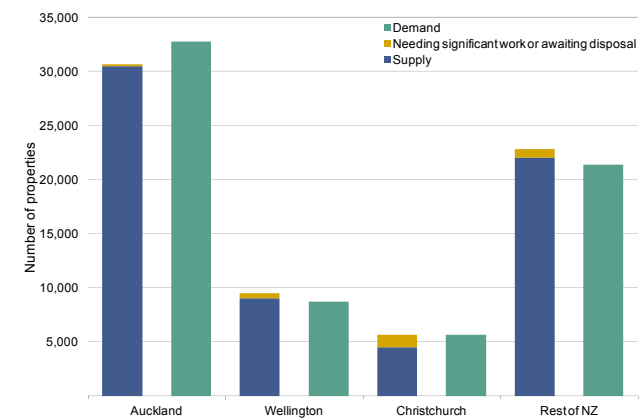
Source: HNZC

This measure does not take into account those existing tenants whose circumstances may have improved since initial settlement, and could therefore be housed through other means. HNZC is introducing a new measure as reviewable tenancies are extended to all tenants which calculates the percentage of tenants who are either receiving an IRRS (in financial need) or live in a modified property (ie, have a disability). For 2012/13, this was 94%.

### Appropriate housing

To ensure that HNZC can service its customers properly, it needs to have a mix of state houses of the right type and in the right location. The nature and location of tenant demand has changed significantly from when the majority of the existing portfolio was acquired, resulting in a mismatch between the current state house portfolio and current and emerging customer need. According to its last asset management strategy, HNZC believes that 50% of its portfolio is in the 'right place' and of the 'right type', and meets HNZC's standards to meet future need.

Figure 4.11 – Property supply relative to demand



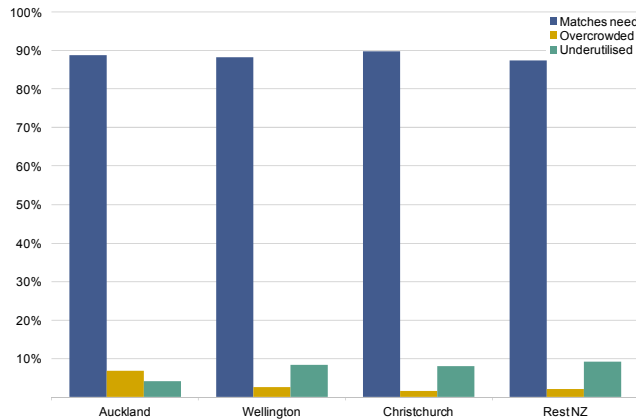
Source: HNZC

<sup>23</sup> The Social Allocation System (SAS) has four possible scores for any applicant, A,B,C,D. Since 2011, applicants with scores of C or D no longer qualify for social housing. Some applicants who were scored C or D prior to this change were grandparented onto the new system.

To check whether the portfolio holds assets in the right location, HNZC assesses the supply of houses relative to demand by region. Auckland has a shortage of houses, while the rest of the New Zealand has too many houses to meet demand. Parts of the Christchurch housing stock require significant remedial work to bring the houses up to a satisfactory condition for tenants.

One of the ways in which HNZC determines the suitability of its current housing portfolio is by assessing whether it is overcrowded or underutilised. 89% of the stock is matched to tenants' needs, however for those properties that are not, Auckland is more likely to be overcrowded, whereas for the rest of the country houses are underutilised.

**Figure 4.12** – Property configuration relative to need



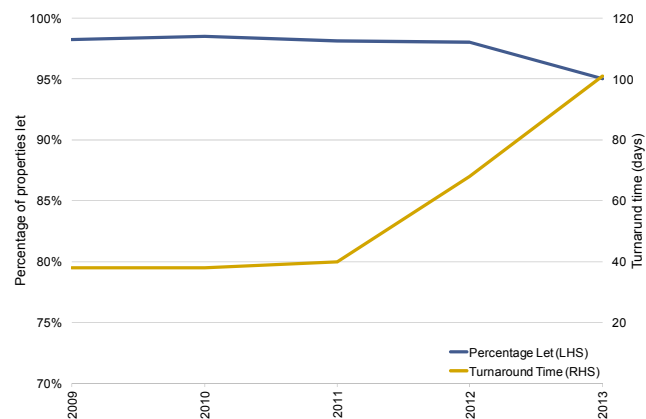
Source: HNZC

There are limitations to this measure because bedroom need is assessed against an allowance of having one surplus bedroom, or having a shortfall of one bedroom, compared to tenant need. A tighter definition of suitability aligned directly with need would highlight that 58% of properties either have an unutilised room or rooms (41%) or need another room or rooms (17%).

**Vacant property**

Vacant property is an indicator that the housing stock is being underutilised. This is assessed by HNZC through two methods – the percentage of properties being let, and the turnaround time from when a property becomes vacant to when it is let to new tenants.

**Figure 4.13** – Property vacancy



Source: HNZC

From 2009 to 2012, around 98% of properties were being let to tenants, however this decreased to 95% in 2013. Average turnaround time has deteriorated over recent years, with the average turnaround time in the 2013 financial year being 101 days.

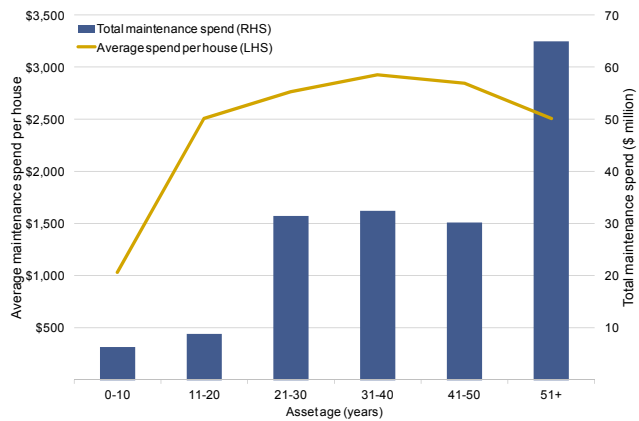
Increased vacancy levels are due to a number of factors. Firstly, the methodology for measuring vacancy changed which reduces comparability against prior periods. In addition to this, HNZC conducted more maintenance on properties prior to letting, and

are undergoing a reconfiguration of their asset portfolio leading to properties being left vacant while they are awaiting sale or being redeveloped. The Canterbury earthquakes also had an impact on the properties in that region.

### Maintenance

Most maintenance spend is performed on those houses older than 20 years and the average spend per house peaks for houses 30-50 years old. Older houses require more maintenance, however as they reach the end of their useful lives often less maintenance is performed as the property is more likely to be replaced.

Figure 4.14 – Maintenance spend



Source: HNZN

### Opportunities and challenges

HNZN has owned many properties over many decades, and increases in property prices over time have resulted in significant growth in the value of housing assets. However, a portfolio of older assets can put pressure on capital and operating expenditure needs, due to a greater need for maintenance and or structural works to keep assets fit for purpose. It is likely that costs to maintain properties will start to increase to the point where the benefits of meeting these ongoing costs may be outweighed by those of selling or redevelopment. HNZN are aiming to meet this challenge by looking to divest properties that are not needed to meet demand, or that have reached the end of their useful lives. This in turn should improve vacancy and utilisation rates, and provide capital to further develop in those areas of greatest need.

The social housing portfolio provides shelter for many vulnerable New Zealanders, but as their needs change over time the portfolio has to change with it. At present there is a distinct mismatch between the size and location of the existing housing portfolio and the current and forecasted demand for state housing. The challenges for HNZN are in the active management of existing non-priority A and B tenants who have lower needs into non-state housing, as well as reconfiguring the portfolio to meet existing and expected demand. To meet these challenges, HNZN plans to increase the number of fit for purpose properties by 9,000 over a 10-year period, through a combination of redevelopment, upgrades, sales and acquisitions.

The government is currently working through a social housing reform programme. This will make a number of changes to the policy settings pertinent to the portfolio. Providers other than HNZN will be able to access the IRRS – and this should encourage providers other than HNZN to deliver social housing. Tenants will also have their need for housing reviewed; meaning that demand for social housing will more effectively mirror need. Both of these changes are likely to alter the future location and method of social housing provision.



## Schools



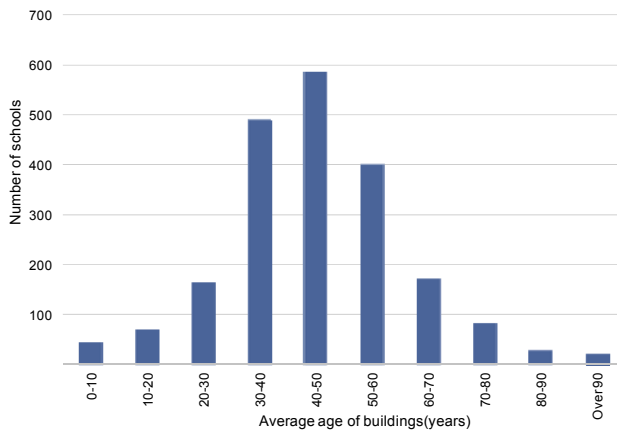
## Asset profile

The Crown currently holds school property to provide education for around 647,000 students, consisting of 347 secondary schools and 1,714 primary schools. The property includes around 6,900 hectares of land and 35,000 classrooms.

The Ministry of Education (MoE) is responsible for holding the Crown’s ownership interest in school property, ensuring that there is sufficient capacity to meet demand, and that it supports principals and Boards of Trustees as custodians of school infrastructure.

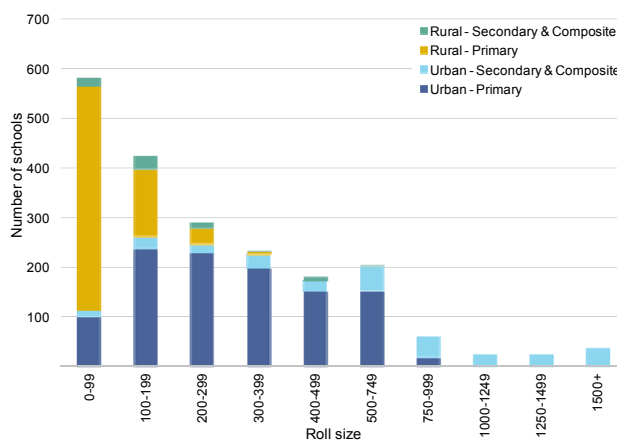
Many of New Zealand’s schools were built from the 1950s to the 1970s, giving an average age for the portfolio of 42 years. There are a high proportion of small schools in the education portfolio, with 28% of schools having less than 100 students. These are primarily in rural communities. While larger schools tend to occur in urban centres, each urban centre has a range of school sizes.

Figure 4.15 – Average age of school buildings profile



Source: Ministry of Education

Figure 4.16 – School size by type



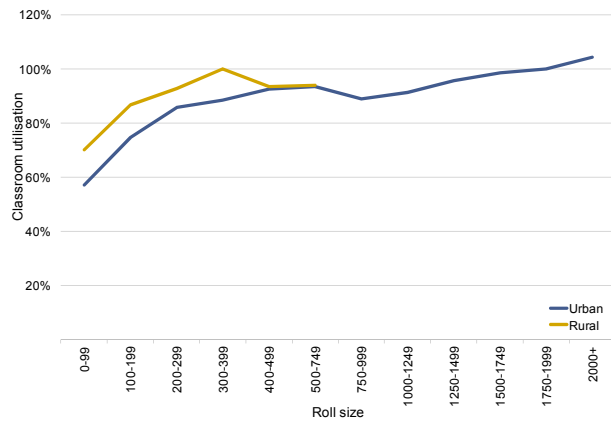
Source: Ministry of Education

## Performance

There are significant benefits to managing the utilisation of the property portfolio effectively. In addition, it is important to maintain the functionality and condition of the school property to a level that best meets the needs of a modern learning environment (MLE) to support and enable better educational performance.

### Utilisation and network efficiency **Figure 4.17** – Classroom utilisation

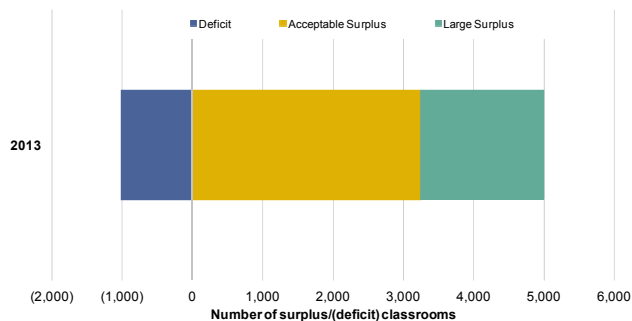
Changes in demographics put pressure on the school utilisation and network efficiency. As demographics shift there is a need for the school network to move accordingly to meet changes in demand over time. This requires schools to have ‘buffers’ in place to meet growing demand, but also to ensure that where there is a long-term decline in demand they do not maintain a greater level of property than is required.



Source: Ministry of Education

Based on current school roll size compared to available classroom space, a school with more than four surplus classrooms is deemed to have a ‘large’ surplus which could be managed more effectively. In 2013, approximately 355 schools had surplus classrooms (5% of total classrooms), and there were approximately 421 schools requiring additional capacity. The Ministry manages demand for new capacity using funding allocated for roll growth to supply new classrooms and anticipates the level of demand for new classrooms to remain relatively static.

### Figure 4.18 – Surplus and deficit classrooms



Source: Ministry of Education

**Functionality<sup>24</sup>**

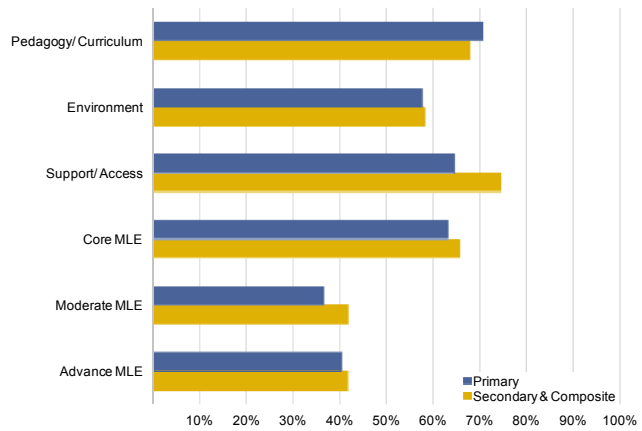
School functionality is assessed against MLE standards, and schools are required to assess and prioritise improvements to functionality alongside the condition of the property. While most school buildings were constructed over 20 years ago, both building standards and teaching standards have changed significantly since that time. Accordingly, the ageing property needs to be updated to meet modern educational needs and safety standards, both to prevent functional obsolescence and to assist in improving educational performance.

**Condition**

State schools have been in the process of performing condition assessments, and measuring the condition based upon the expected ten-year cost per square metre of maintenance – taking into account weather-tight remediation and earthquake strengthening impacts. This is best viewed on the basis of the age of the assets and the size of the school. In general there are greater costs associated with older assets and with smaller school sizes – which is characteristic of New Zealand’s school property portfolio.

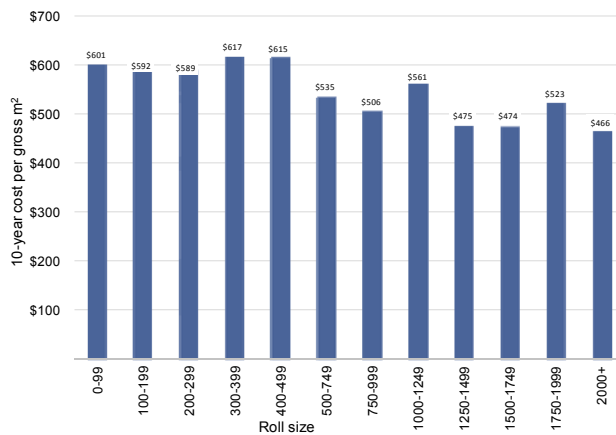
A building older than 30 years is expected to have costs at least 78% higher on average than that of a building less than ten years old, and

**Figure 4.19 – Meeting modern learning environment**



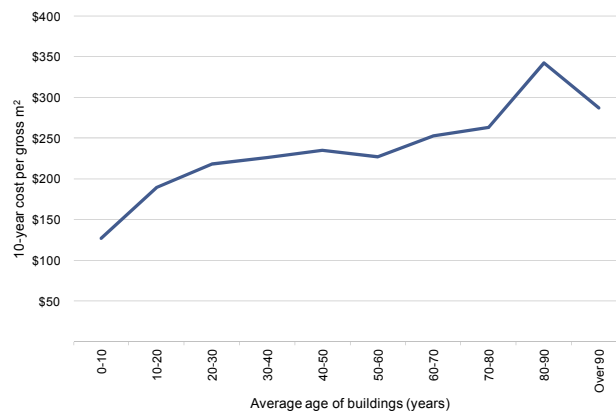
Source: Ministry of Education

**Figure 4.20 – 10-year costs by school size**



Source: Ministry of Education

**Figure 4.21 – 10-year costs by school age**



Source: Ministry of Education

<sup>24</sup> MLE data is based on a representative sample of 38% of schools.

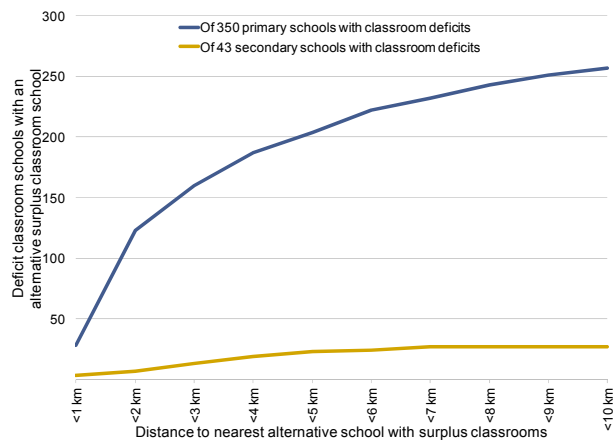
a school with more than 500 students is likely to have a ten year cost around \$50-\$100m<sup>2</sup> lower than that of a smaller school.

### Opportunities and challenges

Changes in demographics and demand can make effective long-term capital allocation decisions complex and challenging. Many schools currently have surplus or deficit classrooms based on past decisions and expected future needs, and managing network efficiency can be expensive. Under existing policy this may lead to building classrooms where there are more cost-effective alternative solutions.

For example, for those schools with a deficit of classrooms, over 45% of primary schools are within three kilometres, and over 53% of secondary schools are within five kilometres, of an alternative school with surplus capacity that can meet their capacity needs. With construction costs for a new classroom starting at around \$200,000, but rising to over \$300,000 in land-constrained urban centres, by utilising property more effectively, such as through the use of transportable classrooms and enrolment zones, it would free up considerable resources to meet other educational priorities.

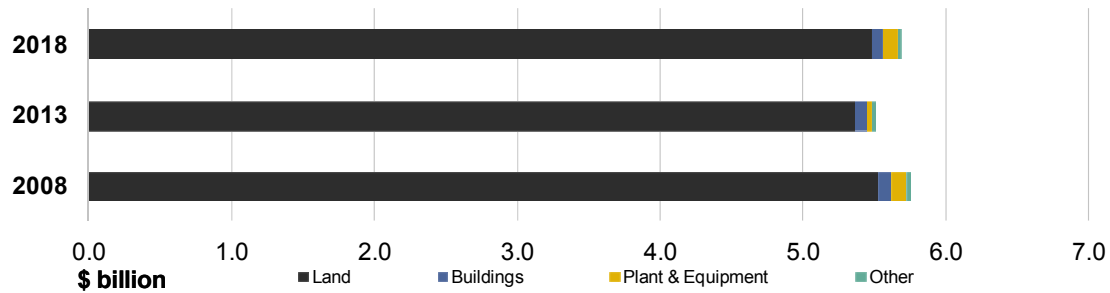
**Figure 4.22** – Distance to alternative schools for schools with classroom deficits



Source: Ministry of Education

In addition to the configuration of the property network, the characteristics of an individual school’s property can have a significant bearing on running costs. Therefore, funding for the maintenance and modernisation of buildings may need to better consider the age, condition and size of schools to reduce variation across schools in their funding relative to property needs. This would improve New Zealand’s school capital as a whole, which would help enable the education system to improve outcomes.

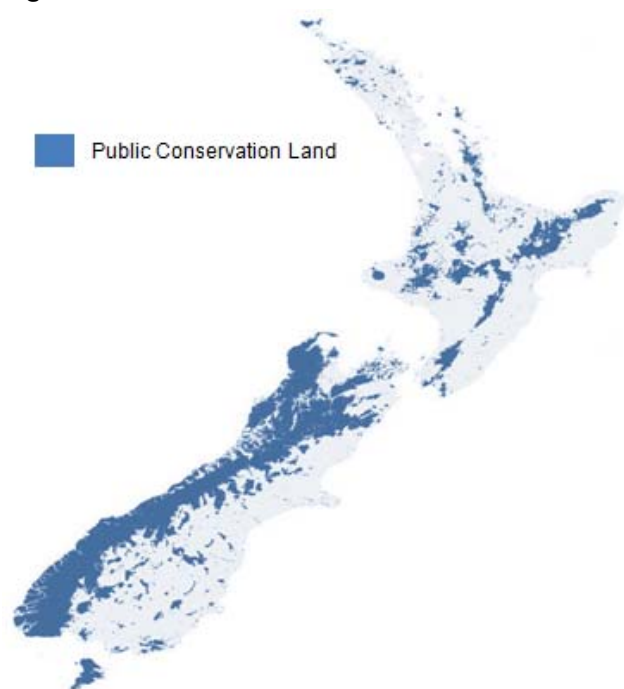
## Conservation Estate



### Asset profile

Public conservation land (PCL) is owned by the Crown and managed by the Department of Conservation (DOC) to preserve the common heritage of current and future New Zealanders, while fostering recreation and tourism. It consists of around 8.5 million hectares (M Ha) of land, 34 marine reserves (1.28 M Ha), and six marine mammal sanctuaries (2.4 M Ha). This includes 14 National Parks, a network of 14,000 kilometres of walking tracks, 9 Great Walks, 970 huts, and more than 1,750 toilets. On this network are approximately 13,500 bridges, boardwalks and other structures.

Figure 4.23 – Public conservation land



Source: Department of Conservation

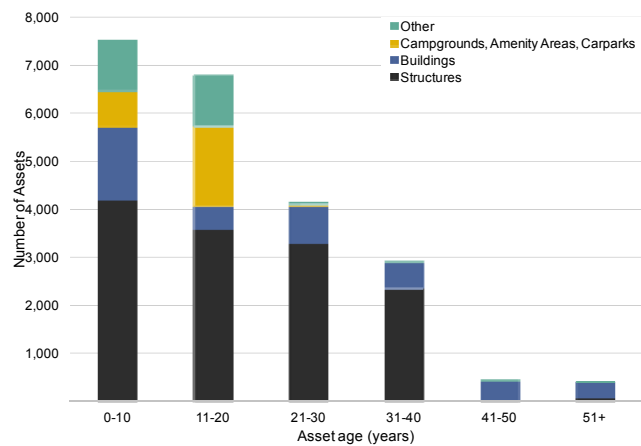
A majority of the value in the conservation estate relates to PCL which provides ecosystem services such as biodiversity, species protection, topsoil retention, nutrient cycling, flood protection, climate regulation, water capture and purification, landscape values, recreational access and wellbeing. PCL makes up around 33% of New Zealand’s land mass and is largely found in the higher and middle altitude parts of New Zealand (1.4 M Ha and 4.9 M Ha respectively). Indigenous forests cover about 58% of the PCL.

The conservation values that are determined for PCL vary, with some areas being regarded as having much higher conservation values than others, according to their contribution to natural (including rarity) and historic heritage, and recreational outcomes. Any consideration of PCL needs to take into account that there will be current functional value, and a future potential value, given the dynamic state of New Zealand’s biodiversity and the changing nature of cultural heritage. In addition, it

is not always beneficial to rely on the same geographical area to contribute to multiple functions, and there may be trade-offs that need to be made between achieving different conservation estate outcomes.

The other major category of assets relates to a broad mix of 22,300 individual Visitor Assets (\$359 million). These include structures such as bridges, viewing platforms, barriers and boardwalks, which have a life of between 25-100 years and buildings which have an expected life of 35-65 years and consist of huts, toilets, shelters, and sheds.

**Figure 4.24 – Asset age profile by type**



Source: Department of Conservation

## Performance

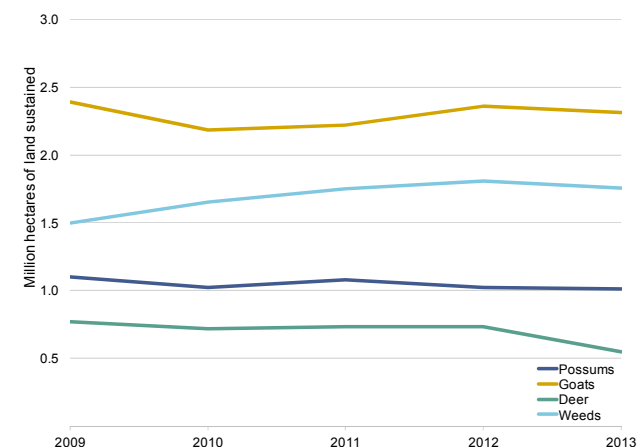
There are environmental, economic and social benefits from healthy functioning ecosystems and recreational activities. The performance of the conservation estate is considered in relation to maintaining and restoring New Zealand’s natural heritage, the condition of the Visitor Assets, and how conservation assets are used for recreational purposes.

### ***Pest control and ecosystem condition***

To ensure the diversity of New Zealand’s natural heritage, there is a need to maintain and restore ecosystem composition and structure, manage the natural ecosystem function, and prevent declines of, and improve, New Zealand’s native populations. DOC examines the dominance of indigenous wildlife, the types of species present, and the representation of different ecosystems and currently directly spends \$82 million per annum on land maintenance, equating to around 1% of the land value.

New Zealand’s native species face constant pressure from introduced plant and animal pests, and managing these pressures over a large land and marine area is a major challenge. DOC undertakes an extensive pest control programme covering both public and private land. Over the past five years, DOC has maintained the land under sustained

**Figure 4.25 – Land under sustained control**



Source: Department of Conservation

control for weeds and animal pests at a relatively constant level. The annual work programme varies across weeds and pests as it is dependent on a cyclical work programme.

DOC has recently changed the approach to species management to focus on species security at a national level. This is done by assessing the increases in the number of species managed for persistence (2012/13: 111) and ecosystems managed for ecological integrity (2012/13: 151) under active management, and the security level of those species under active management programmes (2012/13: 212 species with improved security levels).

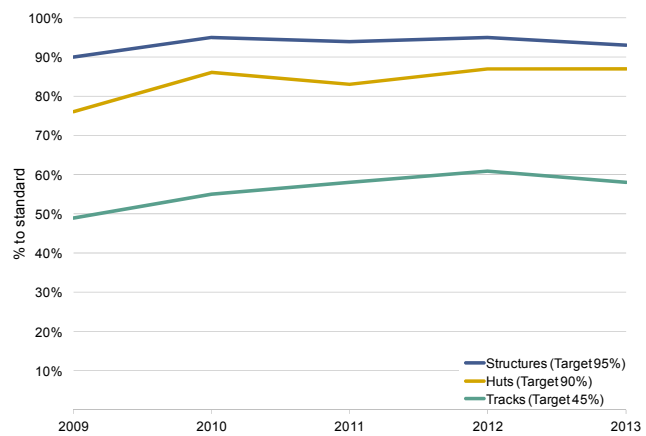
**Visitor asset standard**

DOC directly spends around \$49 million per annum on maintenance expenditure for visitor and historic assets (13% of the total asset value) and assesses the performance of visitor assets against a desired service standard.

Over the past five years, structures have been tracking around or just below the expected standard.

However, huts have been consistently below the expected standard, while tracks are significantly ahead of standard. DOC also assesses user satisfaction of the facilities, with 88% of New Zealand users being satisfied or very satisfied with the DOC facilities used in the past year.

**Figure 4.26** – Visitor assets meeting service standard



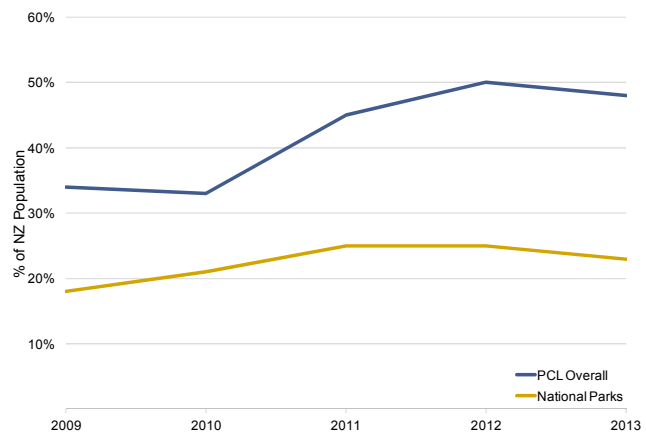
Source: Department of Conservation

**Use of the conservation estate**

PCL provides a significant resource for New Zealanders to use to meet their recreational needs, and is also a significant contributor to tourism – one of New Zealand’s biggest industries – with around 33% of all visitors to conservation areas coming from overseas.

One of DOC’s objectives is to use the conservation estate to increase participation rates of New Zealanders in recreational activities. The most recent annual

**Figure 4.27** – Recreational use of conservation areas



Source: Department of Conservation

data shows the most popular activity enjoyed by people visiting conservation lands are the short day walks, normally close to urban centres, while there has been no significant increase in the use of national parks. This may be a result of perceived improving domestic economic conditions, resulting in an increasing number of New Zealanders taking their holidays overseas.

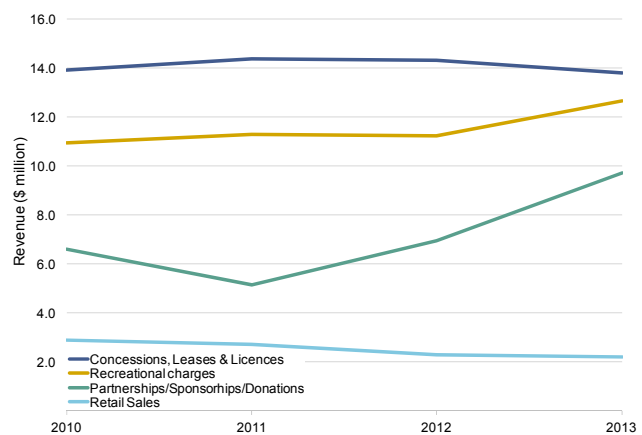
### Opportunities and challenges

DOC manages a significant suite of facilities across the country which is likely to be more than can be adequately maintained in the future. Over time, the size of the land that DOC are responsible for managing has increased, leading to a need to prioritise spending more effectively, identify alternative ways to fund and manage the estate and the suite of facilities.

This has led to a need to optimise investment in species and ecosystem management with a focus on high priority sites important to ecological representation, and an increased focus on achieving value for money activities. There may also be an opportunity for DOC to free up resources by changing the management of land or parting with land with little or no conservation value to enable higher investment in areas where conservation values are high.

DOC has been trying to increase conservation efforts by working more effectively with businesses, communities and iwi to take conservation beyond DOCs traditional boundaries and out on to farms and into communities. There has been an increase in engagement with the commercial sector by entering into new partnerships and building on established relationships with businesses to utilise the estate more effectively and provide greater opportunities for people to engage with the estate.

**Figure 4.28** – Third party revenue trends

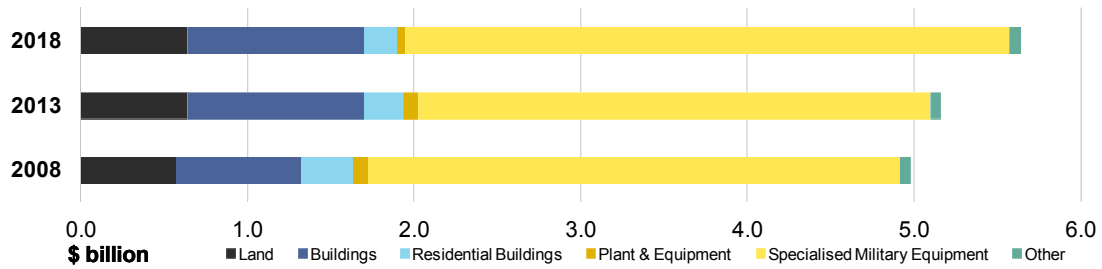


Source: Department of Conservation

New Zealand’s geography and urban population distribution influence people’s recreational choices, along with changing leisure preferences. This means that DOC must understand and respond to what people are wanting now and are expected to want in the future. Existing visitor assets may not necessarily fit the purpose of meeting the future needs of the public to increase participation and satisfaction of visitors, resulting in changes in priorities when allocating their resources in the future.



## Defence



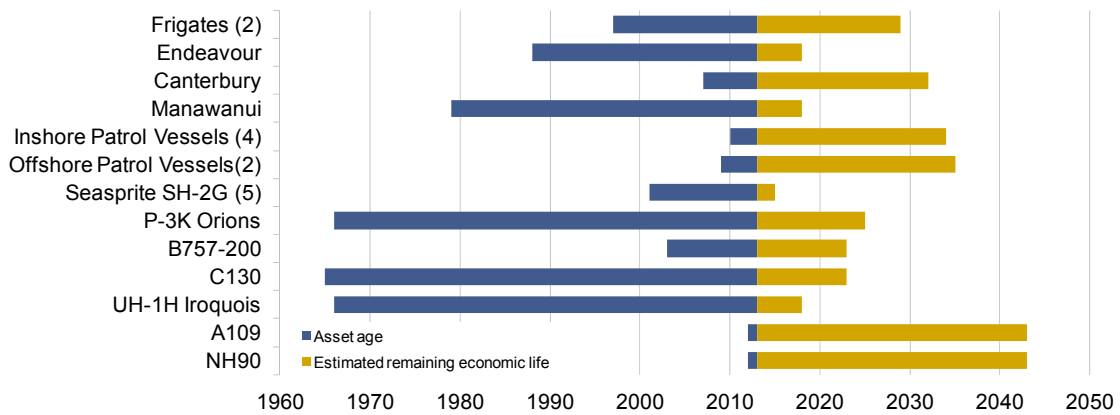
### Asset profile

Defence assets are managed by the New Zealand Defence Force (NZDF) and are held to secure New Zealand against external threats, protect sovereign interests, and to be able to take action to meet contingencies in strategic areas of interest.

The majority of Defence assets consist of specialised military equipment (SME) (\$3.1 billion) and the Defence estate (\$1.9 billion).

Figure 4.29 illustrates the period of service of existing SME assets and their estimated remaining economic lives under current capability plans.<sup>25</sup>

**Figure 4.29 – SME service period**



Source: NZDF

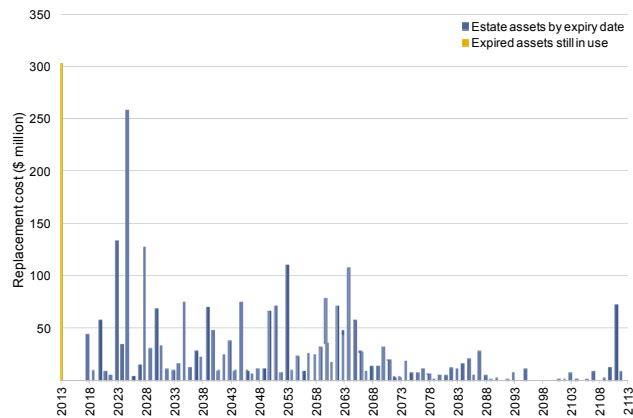
<sup>25</sup> Asset age is based upon the initial acquisition date for the SME type however some SME assets have been upgraded, or had additional acquisitions of a similar nature after the initial acquisition date.

The Defence estate primarily consists of nine bases across the country, consisting largely of buildings serving a variety of purposes, broadly classified into:

- ▶ living accommodation (eg, barracks and houses)
- ▶ working accommodation (eg, headquarters, offices, storage facilities, workshops)
- ▶ non-working accommodation (eg, canteens, messes, ablutions)
- ▶ specialised facilities (eg, communications, armouries, bunkers, explosive stores), and
- ▶ training facilities.

A large proportion of the estate is either past its useful life, or is expected to reach this point within the next 15 years. Older facilities are less likely to be fit for purpose and can put pressure on operating expenditure through higher asset related costs such as repairs and maintenance.

**Figure 4.30** – Remaining estate economic lives



Source: NZDF

## Performance

NZDF uses SME to produce outputs under three main areas:

- ▶ Prepared – maintenance of military capability that can be deployed, sustained, recovered and regenerated at the scales of effort required to meet the Government’s strategic objectives
- ▶ Protect – conduct of operations and provision of security and other services to protect New Zealand and New Zealanders, and
- ▶ Project – deploying Armed Forces overseas at Government’s direction to conduct military operations and other tasks.

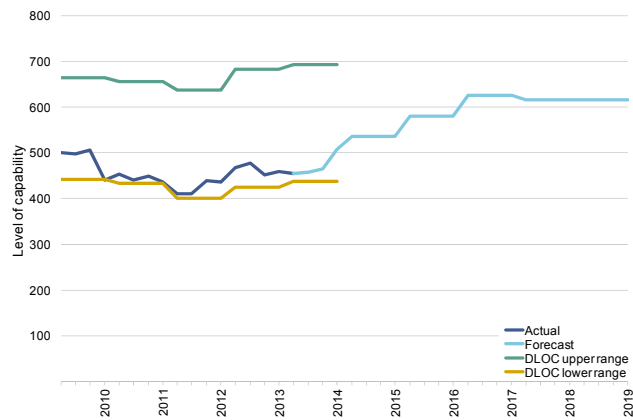
This section focuses on the Prepared and Protect outputs for the SME, and the condition of the Defence estate.

### **Prepared**

This measure reflects the operational capability of the NZDF to provide the Government with options to respond to security events. It covers maintenance of a conventional warfighting capability, incorporating the capability of combat, support and enabling functions, and shows how prepared the NZDF is to project and sustain deployed forces in the event of a contingency.

Military capability is measured against a directed level of capability (DLOC), reflecting a level of capability sufficient to allow operational standards to be met within a prescribed response time. While it is currently within acceptable parameters of DLOC, significant capital expenditure will be required over the next 20 years to maintain capability to a level that will meet government objectives.

**Figure 4.31 – Operational preparedness**

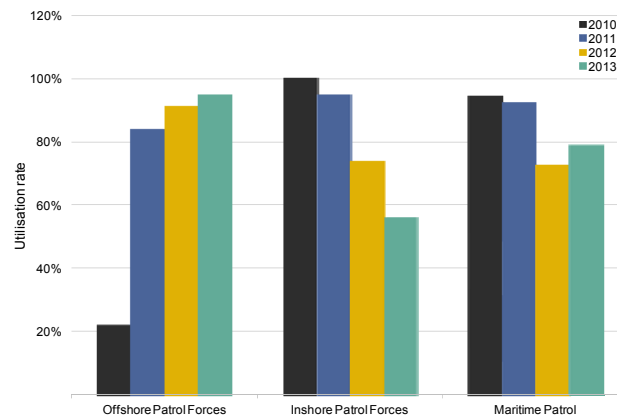


Source: NZDF

**Protect**

The NZDF measures the availability and utilisation of military capabilities to both defend New Zealand’s sovereign territory and for domestic tasks such as the management of marine resources, drug interdiction, illegal migration, smuggling, trafficking, quarantine evasion, terrorism and environmental degradation. This performance is currently measured on an input basis – how many flying hours or sea days are made available to perform protect tasks compared to their budgeted band for flying hours or sea days.<sup>26</sup>

**Figure 4.32 – Utilisation of Protect assets**



Source: NZDF

Utilisation of the various protect capabilities is largely influenced by the needs of other agencies – such as MPI, Customs, Police and MFAT – as part of their operational activities.

There are limitations to this measure, primarily because when based against an expected level it may not necessarily take into account how useful the time has been spent performing a task, or how aligned it was to achieving other agency outputs. As a result, the NZDF continues to work with other agencies to refine performance measures.

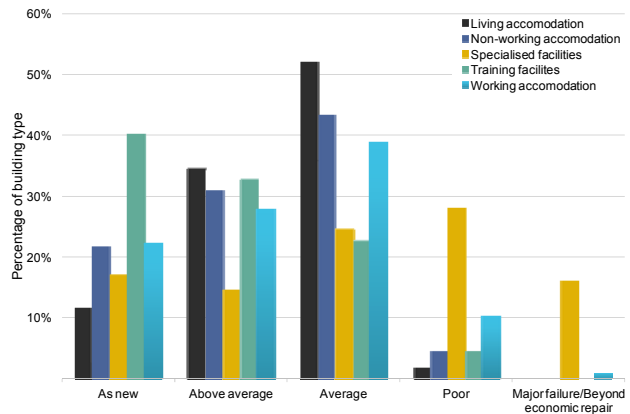
<sup>26</sup> Measurement based upon actual performance compared to the lower (underutilisation) and upper (over-utilisation) budgeted band limits.

### Estate condition

The NZDF sets acceptable condition standard, usually average or above average level, depending on asset type, and the function that it serves.

Over the 5,000 estate assets there are significant differences in asset condition, which can be due to the level of maintenance spend on the assets over time, as well as the age and relative importance of the base where they are located. Living and Non-Working accommodation is generally meeting the expectations, however Specialised facilities and Working accommodation is generally not meeting expectations and may have an impact on service delivery.

Figure 4.33 – Estate asset condition



Source: NZDF

### Opportunities and challenges

Due to the size of New Zealand’s defence force, the challenge is in maintaining sufficient capability for a range of independent tasks and the ability to contribute to operations with key strategic partners without over committing capital in an unsustainable manner.

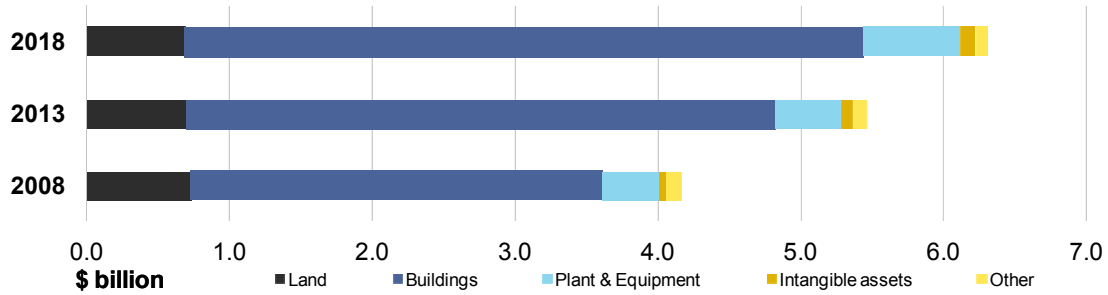
A large proportion of Defence assets relate to SME, the maintenance of which is largely dictated by policy settings. Greater certainty over long-term resourcing intentions enables the NZDF to manage its capital base more effectively. The Defence White Paper, along with the recent Defence Mid-point Rebalancing Review, provides direction for the long-term capital decision making.<sup>27</sup> It outlines the trade-offs between defence capability, policy, and funding implications, and the challenge for the NZDF is ensuring that they can manage their resources within this plan.

Over the next 15 years there will be a large number of key SME items that need to be replaced, including the frigates, and transport and patrol aircraft. Due to the size of the initial spend, as well as the related ongoing costs, the acquisition and introduction of these replacement capabilities will need to be prioritised, scheduled and well managed within relatively tight budget constraints and increasing costs.

For the NZDF estate, there are a large number of older buildings on a significant land area. There is an opportunity to rationalise this estate through some functional consolidation within and between bases, new acquisitions and divestment in order to improve the overall estate. This may improve functionality, create operating cost efficiencies and free up resources to meet other Defence requirements.

<sup>27</sup> <http://www.defence.govt.nz/reports-publications/defence-white-paper-2010/contents.html>

## Healthcare



### Asset profile

New Zealand’s healthcare services are largely publicly funded but are provided by a mix of public and private organisations. The majority of expenditure by the New Zealand government on healthcare flows through 20 District Health Boards (DHBs), grouped into four regions:

Northern Region	Midland Region	Central Region	Southern Region
Auckland DHB	Bay of Plenty DHB	Capital and Coast DHB	Canterbury DHB
Counties Manukau DHB	Lakes DHB	Hawke’s Bay DHB	Nelson Marlborough DHB
Northland DHB	Tairāwhiti DHB	Hutt Valley DHB	South Canterbury DHB
Waitemata DHB	Taranaki DHB	MidCentral DHB	Southern DHB
	Waikato DHB	Wairarapa DHB	West Coast DHB
		Whanganui DHB	

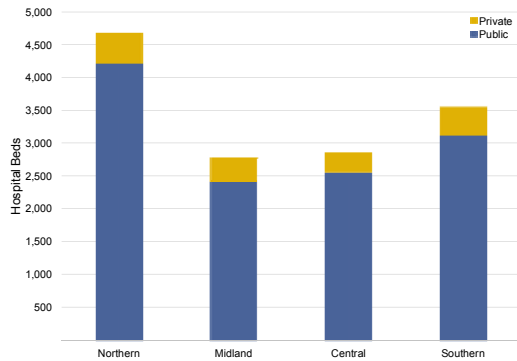
DHBs provide funding to the private primary care sector, including aged residential care and community care, but deliver most secondary services directly, and collectively manage around \$5.5 billion worth of property, plant and equipment. The majority of these assets relate to land and hospital buildings consisting of:

- ▶ seven major hospitals in Auckland (3), Hamilton, Wellington, Christchurch and Dunedin
- ▶ 20 general hospitals
- ▶ 35 sub acute hospitals, and
- ▶ 24 specialist facilities providing dedicated services including rehabilitation, rest home care, birthing and psycho-geriatric services.

While DHBs are primarily responsible for making operational and capital investment decisions, governments retain decision making rights on significant capital investment programmes and projects.

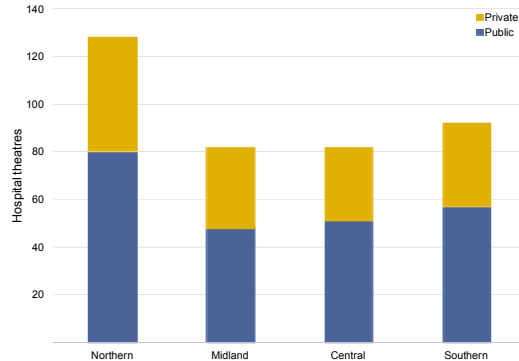
There were 8,197 hospital beds (6,798 public medical and surgical beds, 1,399 private beds) and 388 theatres (236 public theatres, 152 private theatres) in the latest asset stock take that was undertaken by the Ministry of Health in May 2013.

**Figure 4.34** – Hospital beds by region



Source: Ministry of Health

**Figure 4.35** – Theatres by region



Source: Ministry of Health

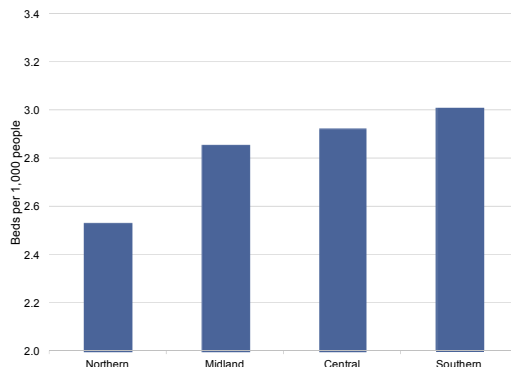
## Performance

The performance of the public healthcare assets can be measured in terms of how well the assets are utilised and meet demand pressures, and how well they fit their purpose.

### Available capacity

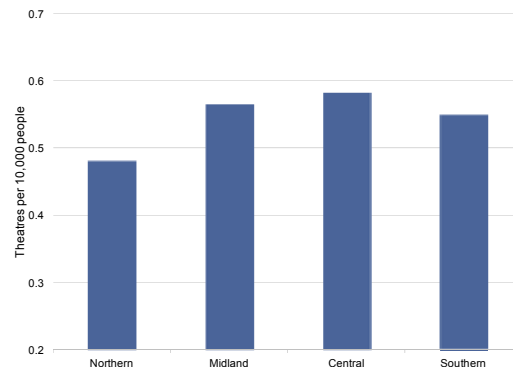
The capacity within the health system is measured by assessing the assets available to meet expected service needs.

**Figure 4.36** – Beds per 1,000 people



Source: Ministry of Health

**Figure 4.37** – Theatres per 10,000 people



Source: Ministry of Health

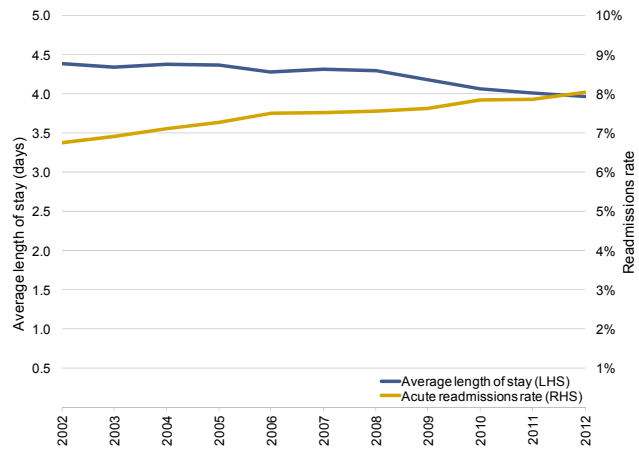
The Northern region services more people with each bed and theatre than any other region in New Zealand. The Southern region has the highest ratio of beds per capita despite having the lowest proportion of theatres outside of the Northern region.

Demographic changes are going to have an impact on the demand for healthcare services and will require careful consideration of the size and type of future capital spend, or alternative methods of providing healthcare services.

**Length of stay**

Traditionally, hospital utilisation has been based on the number of nights that medical and surgical hospital beds were used in the year compared to their potential use at full capacity. However, over time the provision of health services has changed significantly. It is now recognised that a longer stay for medical and surgical treatment can potentially reduce patient wellbeing and is likely to increase the cost of care. Beds may get used more than once throughout a day while not necessarily being used overnight (and not being counted in bed night data). For example, between 2002 and 2012 there was an increase in the proportion of all surgical procedures that were carried out as day case procedures (from 53 to 58 percent), which is in line with international trends.

**Figure 4.38 – ALOS and readmission rate trends**



Source: Ministry of Health

The average length of stay (ALOS) for both medical and surgical treatment has decreased over the past ten years. From 2002 to 2012, the average length of stay for surgical procedures decreased from 5.6 to 5.0 days, and decreased from 3.8 to 3.5 days for medical procedures.

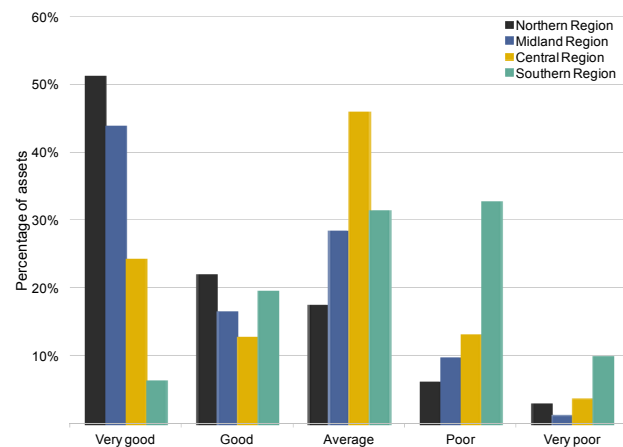
However, there is a challenge in ensuring that the lower length of stay does not reduce the quality of care provided. The readmission rate provides a view on how successful patient treatment has been and may be affected by both the length of time spent in hospital, and the care received after release. From 2002 to 2012 there was an increase of around 1% in the number of patient readmissions to hospital.

**Facility condition**

Facility condition is a reflection of the overall status of facilities and will be impacted by factors such as structural composition of the buildings, age, management and maintenance.

There are significantly different levels of condition across regions. The Northern and Midland regions both have the majority of their assets at a good to very good

**Figure 4.39 – Hospital condition by region**



Source: Ministry of Health

condition. The Northern, Midland and Central regions all have over 80% of their assets at least an average level of condition. In contrast, most of the Southern regional assets are at an average condition or below, which is largely a reflection of the cycle of asset redevelopment, with most Southern Region DHBs intending to upgrade facilities over the next ten years.

### Opportunities and challenges

Demographic pressures will have a significant impact on future healthcare provision needs. For example, despite recent investment by Northern region DHBs, they still have the lowest number of beds and theatres per capita. Conversely, as the population becomes more urbanised in major cities, the provision of healthcare services in smaller towns and rural communities is likely to need to change and take advantage of technology more effectively.

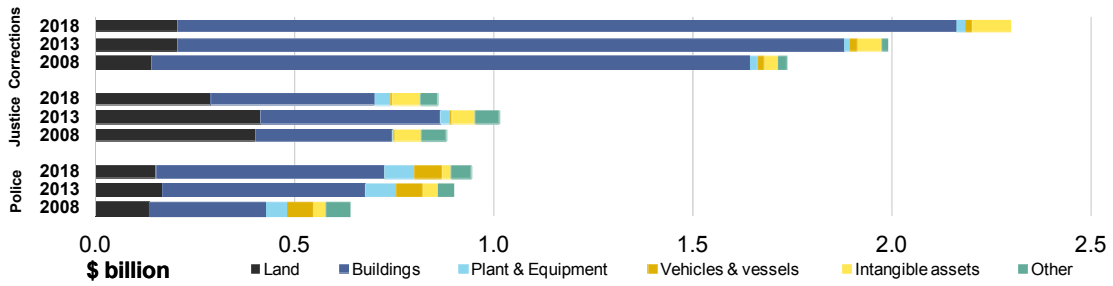
Future capital planning will require substantially better information on assets and their use to ensure that the overall network is fit for purpose and meets future population needs. The DHB capital planning model needs to take into account national and regional service planning to ensure that the physical network enables better health service provision.

As the population ages, the type of services required will change and therefore the composition of healthcare assets will need to change too. With an older population there will be a greater need for many elective surgeries, such as hip replacements, and a flatter demand for maternity and paediatric care. This is likely to lead to changes in the type of theatres and the plant and equipment required to treat patients.

Technological advances also have a significant role to play in determining the size and type of asset base required to provide healthcare services. Over time, treatment and recovery times have significantly improved, resulting in lower demand for long term stays at hospitals and requiring an ever changing approach to how hospital space is used. While it may be difficult to predict how technology will impact on care in the future, any investment will need to be more flexible and adaptable to meet changing needs than it has done in the past.



## Justice Sector



### Introduction

Justice Sector assets are held within three agencies: New Zealand Police (Police), the Ministry of Justice (MoJ) and the Department of Corrections (Corrections). These agencies are discussed together rather than individually in recognition of the ‘pipeline’ through the criminal justice system and the impacts that they have on each other’s operations.

The ‘pipeline’ extends from the investigation, arrest and prosecution of a crime, through to court processes, sentencing and rehabilitation. The policy and operational activities of one agency will therefore have flow-on effects to the other agencies in the sector. For example, a reduction in Police prosecutions will ultimately reduce offender volumes for Corrections.

### Asset profile

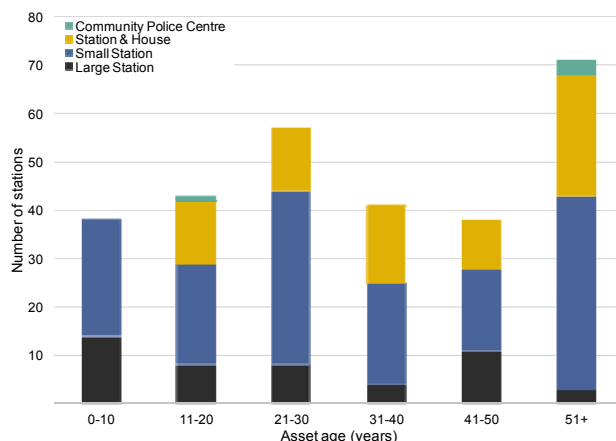
Across the sector, land and buildings make up around 88% of the total value of property, plant and equipment.

Police assets predominantly consist of stations (\$0.7 billion), houses, and vehicles. There are 370 police stations, both owned and leased, consisting of:

- ▶ 59 large stations
- ▶ 106 small stations, and
- ▶ 205 Community Police Centres.

In addition there are a number of other buildings, such as training facilities.

**Figure 4.40** – Ageing profile of police stations



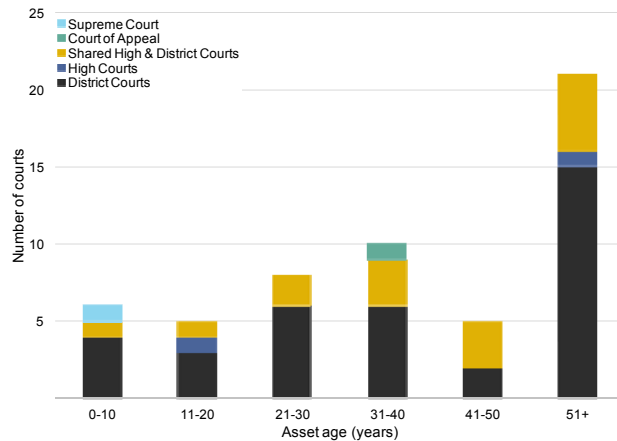
Source: NZ Police

The Police fleet consists of 3,138 road vehicles and eight maritime vessels. The road-going fleet is largely made up of large sedans and station wagons, but also includes motorbikes, vehicles with off-road capability and specialist uses. This equates to around one vehicle for every 2.8 police officers.

Courthouses are the primary asset held by the MoJ. These are largely owned by the Crown, excluding a few cases where they are leased. The MoJ property portfolio, excluding the leased assets, consists of:

- ▶ 36 District Courts
- ▶ Two High Courts
- ▶ 15 Shared High and District Courts
- ▶ One Court of Appeal, and
- ▶ One Supreme Court.

**Figure 4.41 – Ageing profile of courthouses<sup>28</sup>**



Source: Ministry of Justice

Corrections hold the bulk of assets in the Justice Sector, operating 19 prison sites and 173 non-custodial sites such as offices and Community Corrections sites. While the Crown owns all prison sites, some of which were built over 100 years ago, they lease around 79% of their non-custodial sites.

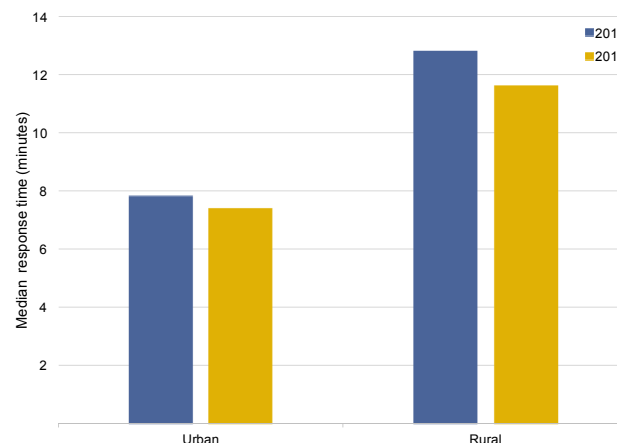
## Performance

There are a wide variety of performance measures relevant to the sector that are dependent on the function that each asset serves.

### Police response times

While not directly linked to individual asset performance, how well the police assets are being used collectively to meet public safety objectives can be measured through the length of time that it takes to respond to an event where there is a real threat to people or property. The methodology for this measure changed in 2011/12, making historical comparisons unreliable.

**Figure 4.42 – Police response time**



Source: NZ Police

<sup>28</sup> For the purposes of the asset ageing profile, where court houses have had additions or extensions the age of the oldest asset has been used.

However, in the past year there was a slight improvement in police response times from a year earlier. Police plan further work on understanding the utilisation of existing police stations and the impact their size and location has on Police performance.

**Court building utilisation**

Court buildings include Court rooms, hearing and mediation rooms, holding cells, and office space for case management and administrative functions. Because these serve different functions, it is difficult to devise a single overall utilisation measure.

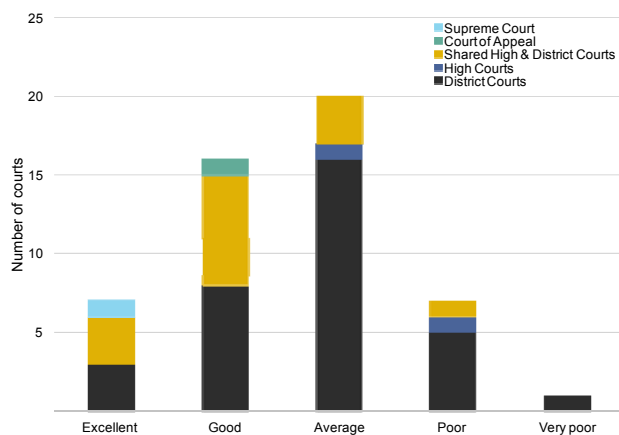
Measuring Courtroom utilisation by comparing actual use against availability has inherent difficulties due to a range of factors outside of MoJ’s control, such as judicial availability and scheduled cases not using space as expected.

Office space utilisation is measured by examining the building footprint used for case management and administrative functions. MoJ is currently well placed when compared with other agencies, however is in the process of consolidating more efficiencies by re-planning spaces and consolidating functions to allow further reduction of its footprint.

**Court condition**

Over half the courts are assessed as having average or above average condition, based on their expected level of standard. Those below standard are generally District Courts which are older and more likely to have suffered wear and tear, as well as being more difficult and costly to maintain to a reasonable standard.

**Figure 4.43 – Court condition by court type**

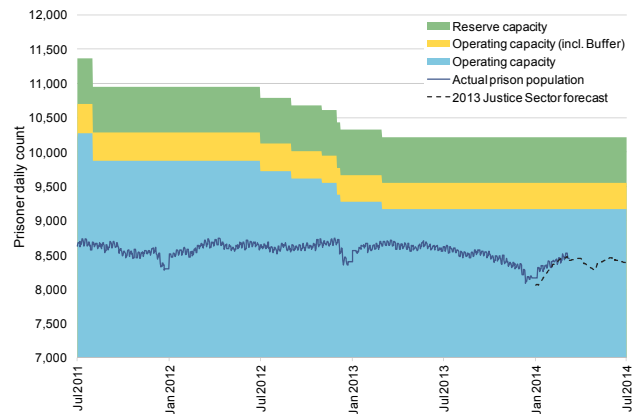


Source: Ministry of Justice

**Prison capacity and utilisation**

Prison capacity and utilisation is reflected in the number of prisoners compared to the number of prison spaces available. Total capacity needs to include a reserve buffer to allow for resilience and flexibility in the system for prisoner transfers and external events such as natural disasters.

**Figure 4.44 – Prison capacity**



Source: Department of Corrections

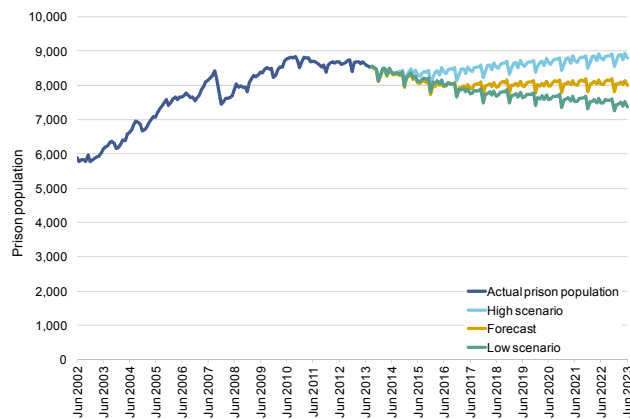
Corrections is reviewing its approach to measuring prison capacity (including the buffers) and utilisation due to the increased focus on prisoner rehabilitation.

## Opportunities and challenges

The main challenges for the Justice Sector are managing the implications of a declining rate of crime and the impact of demographic changes.

If the level of offending resulting in prosecution and incarceration plateaus or decreases as forecast, there will be fewer people processed through the system resulting in lower court utilisation and additional surplus capacity in the prison network.

**Figure 4.45** –Prison population forecast (2013)



Source: Ministry of Justice

Modern policing requires access to timely and relevant information. There is an opportunity for Police to develop new and innovative methods through the use of information technology to deliver better services at lower fixed costs. This has potential to change the composition of the police assets, in particular the number and size of future stations and a greater level of ICT infrastructure.

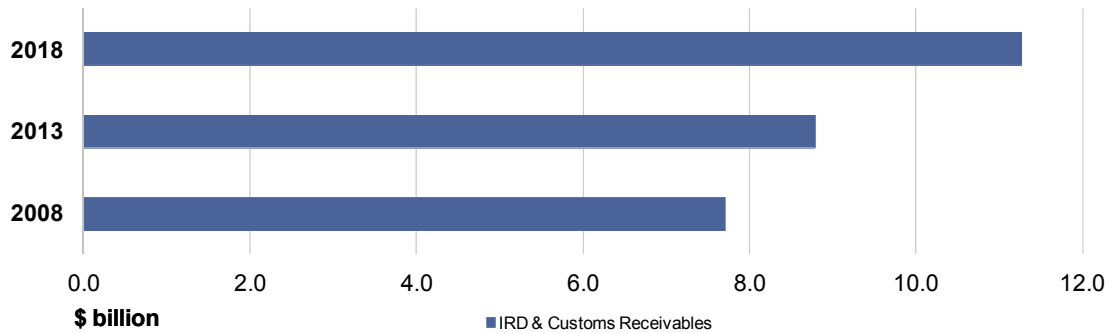
The MoJ needs to carefully balance demographic growth pressures in some regions against the court modernisation programme that is currently under way. There are a number of viable options, one of which may see a smaller number of multi-purpose courthouses in main urban areas and a better use of alternative facilities and technology to meet the needs of people based further away from the main centres. These changes are likely to lead to improved utilisation, allowing MoJ to lessen the time cases take to be disposed of by the judicial system. Many court buildings need modernisation to improve the operational effectiveness and functionality needs of users, and to allow for greater flexibility in the use of building facilities. Reinvestment should be focussed on the core strategic sites, which align to the major population centres, and alternative procurement used to meet other needs where possible.

The primary focus for Corrections has moved toward rehabilitating offenders and away from the historic focus on incarceration. Many prison and non-custodial sites may not have the required functionality to meet rehabilitation needs, which was not a requirement when initially built. Capital expenditure over the medium term should be focused on bringing the existing asset base up to a level that more adequately meets their requirements to reduce reoffending. Prison capacity needs are also likely to change, to ensure that the regional capacity better aligns with demand needs.

Overall, the Justice Sector has had some significant changes in demand, with a lot of older assets that are no longer needed or are not likely to be needed in the future while in their current state. To obtain better value for money from Justice Sector assets there will be a need for better alignment with demand expectations and functionality needs. For example, MoJ and Police recognise productivity benefits from having Police custodial facilities in the same building as the Courthouse, and is actively progressing this in Auckland. This is expected to improve court utilisation and reduce the time defendants spend in Police cells.



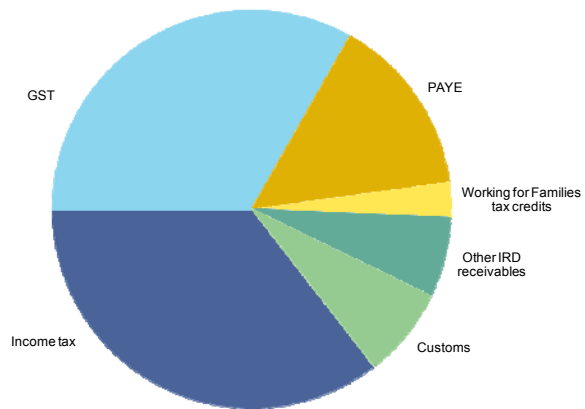
## IRD and Customs Receivables



### Asset profile

Receivables represent outstanding debt due to the Crown that is administered by the Inland Revenue Department (IRD) and Customs. They predominantly relate to tax obligations (ie, income tax, PAYE, GST, and other taxes) but also include KiwiSaver contributions, overpaid Working for Families tax credits, interest and penalties. Due to the relative size of the receivables, this section will focus on IRD-related receivables.

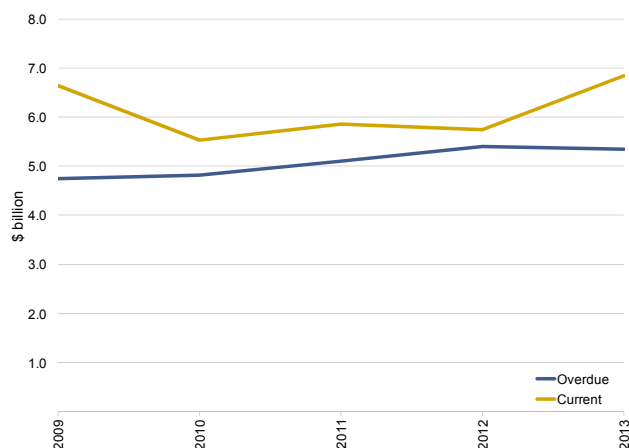
**Figure 4.46** – Gross IRD and Customs receivables



Source: IRD

Tax receivables arise either when a taxpayer has earned assessable income, or when an assessment is filed. Receivables are classified as being past due when the debt has not been paid by the taxpayers' due date. This includes debt collected under instalment, debt under dispute, default assessments and the debts of taxpayers who are bankrupt, in receivership or in liquidation.

**Figure 4.47** – Age of IRD receivables



Source: IRD

Over the past five years there have been fluctuations in IRD receivables, largely driven by movements in tax revenues, but overall gross overdue debt has only increased marginally from \$4.8 billion to \$5.3 billion. Tax receivables as a percentage of tax

revenues were 22.7% for the past financial year, which is relatively consistent with previous years.

## Performance

The IRD has three main strategies unpinning the output performance measures used for their receivables:

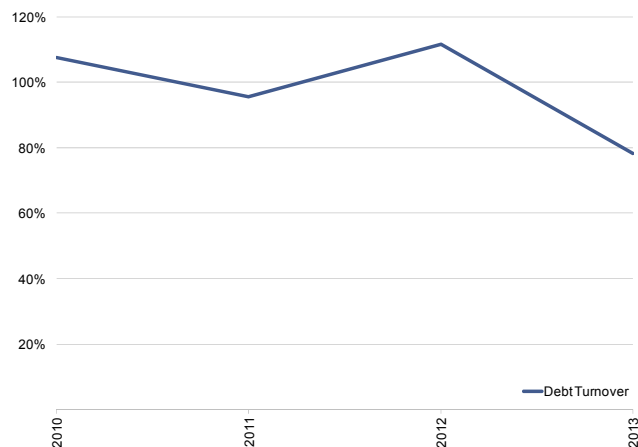
- ▶ early intervention improves the IRD's ability to collect outstanding amounts due
- ▶ successfully managing customers who have not been in debt previously will improve their future compliance behaviour, and
- ▶ to make the best use of resources, there is a need to focus on the cost of services provided.

Accordingly, the most indicative measures of asset management performance for the IRD are debt turnover, debt ageing, and timeliness of debt case resolution.

### **Debt turnover**

Debt turnover measures the value of the debt cleared during the year as a percentage of total debt, and is a reflection of debt collectability. The higher the debt turnover period, the less total debt will grow. Debt turnover tends to be around 100%, excluding 2012/13 when debt turnover was impacted by the timing of debt paid through tax pooling in the last quarter.

**Figure 4.48** – Debt turnover

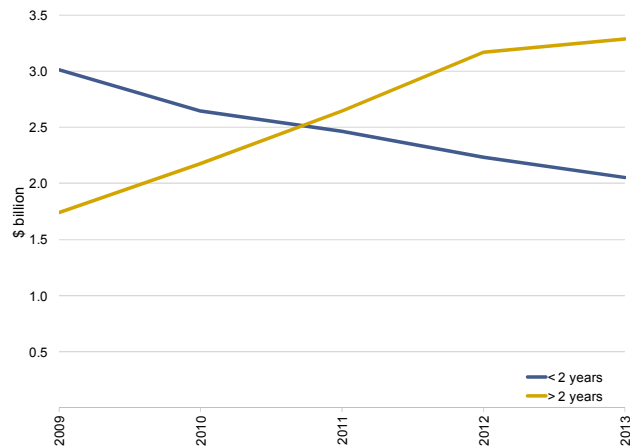


Source: IRD

### Overdue debt

The IRD’s focus on early intervention and on new debt has seen a significant drop in debt aged less than two years, with debt reducing in this category by 8.1% over the past year. Focusing on early intervention does however affect IRD’s ability to achieve targets in collecting older overdue debt, which is harder to recover and has grown over the same period.

Figure 4.49 – Age of overdue debt

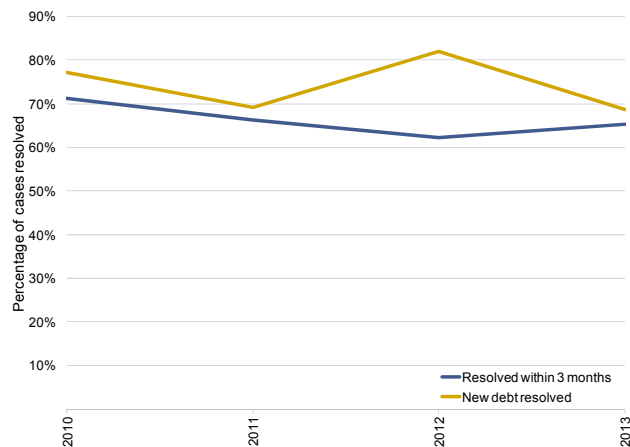


Source: IRD

### Timeliness of case resolution

Timeliness of case resolution is measured by the IRD by examining the percentage of debt cases resolved within three months, and the percentage of debt value resolved for those who did not have a debt at the start of the year (new debt resolved). Around two-thirds of all debt cases are resolved within three months of arising, and around 70-80% of debt is resolved during the period for those who did not previously have a tax debt.

Figure 4.50 – Timeliness of cases resolved



Source: IRD

### Opportunities and challenges

The IRD’s approach to managing receivables is aimed at preventing taxpayers from going into debt, intervening early where necessary and focusing collection efforts on the cases that have the greatest prospect of cash collection. The IRD is adopting a mix of new interventions to reduce debt growth – reminder letters, text messages and online advertising have been used to engage with customers before their due date. In addition, outbound calling campaigns are used to intervene early when customers do not pay on time.

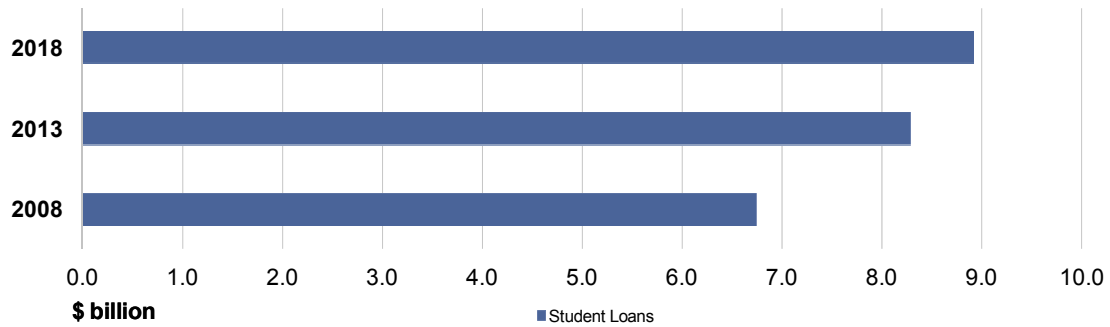
Combined with new investment from the Crown, there has been success in reducing overdue debt growth – particularly for newer debt. However, there will still be challenges in managing resources across new and aged debt to meet both early intervention expectations as well as the targets for aged debt management.



Over time, the services that the IRD has performed have increased significantly, both because of demographic changes, such as population growth, and the impact of new policy decisions such as Working for Families or KiwiSaver. This puts pressure on the largely ICT-based infrastructure of the IRD, and as demand for the level and type of services increases, so do the risks that assets will no longer be fit for purpose. The IRD has signalled a need to upgrade its ICT infrastructure to meet current demand and provide for more flexibility to meet future pressures. Due to inherent risks in ICT system implementation, and the expected size of the IRD investment, this is likely to create a significant challenge for the IRD over the short to medium term.



## Student Loans



### Asset profile

The Student Loan Scheme aims to enable a wide range of people to access tertiary education, gaining knowledge and skills that enhance the economic and social wellbeing of New Zealand. The primary outcome of the scheme is to provide a long-term, affordable loan scheme for students and taxpayers that will enhance the human capital and labour skills of New Zealand as whole.

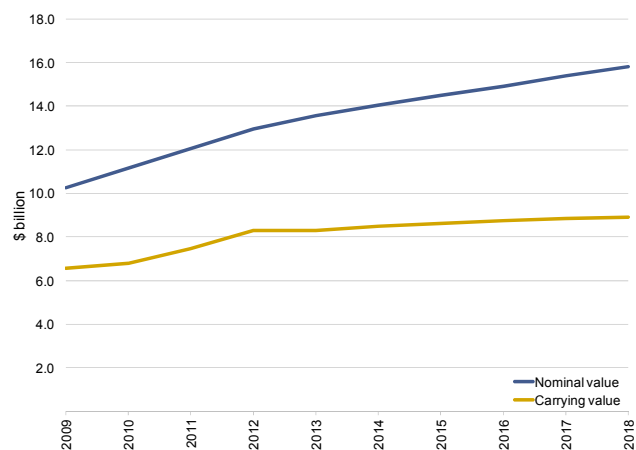
The student loan scheme is intended to provide a cost-effective means of enhancing access to tertiary education. As a result, decisions have been made to charge no interest on loans to New Zealand residents, to require no repayments from those with very low incomes and to write-off loans of those who die or become bankrupt.

The value of the scheme is also sensitive to assumptions such as borrowers' future income, and general economic factors such as interest rates, unemployment levels, salary inflation and the consumer price index. The student loan scheme therefore comes at an ongoing cost to the Crown from a purely financial perspective.

The scheme is administered by three government agencies:

- ▶ Ministry of Education – policy advice and lead responsibility for scheme
- ▶ Ministry of Social Development (Studylink) – information, assessment and payment, and
- ▶ IRD – responsible for loan management and collection.

**Figure 4.51 – Student loan value (2009-2018)**

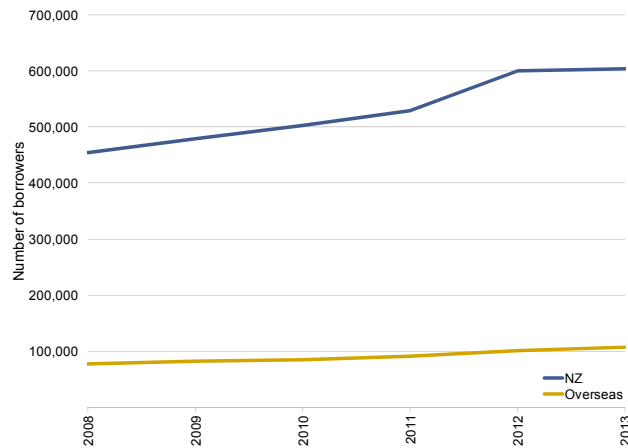


Source: IRD

Since the scheme began, around 1.15 million people have taken out a student loan. This represents about 33% of the New Zealand population aged 15 years or over. As at 30 June 2013, the nominal value of loans was \$13.6 billion with a carrying value in the Crown accounts of \$8.3 billion (reflecting the present value of the expected recoverable amount of the nominal value). At June 2013, \$636 million of the outstanding loan balance reflected repayments that are overdue.

There were 710,968 borrower accounts held by the IRD at 30 June 2013, and a median loan balance of \$13,307. New Zealand-based borrowers made up 85% of borrowers and their loans are 79% of the total nominal value with a median loan balance of \$12,440. The overseas borrowers comprised 15% of borrowers and 21% of the total nominal value, with a median loan balance of \$19,370.

**Figure 4.52** – Student loan borrower profile



Source: IRD

## Performance

Student loan performance measures are similar those of the IRD receivables, and are treated as part of IRD's debt management operation. The key performance measures are the loan repayment times, the collectability of the loan, and the lending costs.

### **Loan repayment**

The loan repayment measure is based upon the amount of time it will take borrowers to pay their loan in full. Repayment times fluctuate year on year, and are influenced by a variety of factors, such as government policy, the strength of the labour market, the type of study undertaken, and whether borrowers move overseas.

The median repayment time for borrowers has been decreasing over time with those who left study in 1999 having a repayment time of 7.8 years, compared to a forecast 7.1 years for borrowers who left study in 2009. New Zealand-based borrowers make faster repayment progress, for example the forecast median repayment time for borrowers who left study in 2009 who remained in New Zealand was 6.7 years compared to 12.1 years for those not always based in New Zealand. This is primarily due to loan collection being performed through the tax system.

### **Lending costs**

The cost of lending measure shows how much of new lending is treated as an expense by the Crown, and how much is treated as an asset. The cost of lending a dollar via the scheme varies a lot over time, and is driven by shifts in interest rates and factors that affect the value of the loan scheme such as the forecast repayment rate.

Since 2009, there has been a decrease in the cost of lending over the year, largely due to the increase in the repayment obligation, forecast interest rates, and a technical change in the approach to the calculation of the cost made to improve its accuracy.

**Loan collectability**

IRD measures loan collectability by assessing the ratio between the carrying value and the nominal value of the loan. It reflects the IRD’s best estimate of how much of the gross outstanding loan value is expected to be collected. At 30 June 2013 this ratio was 61.1%, and is expected to ease to 59.2% by 2018. Because the ratio is affected by interest rates and other factors, this measure reflects other factors in addition to collectability.

**Opportunities and challenges**

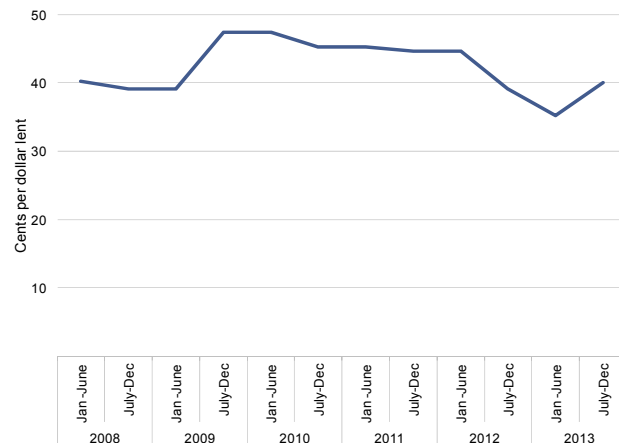
The nominal value of the student loan scheme is expected to grow by over \$2 billion over the next four years. Managing the carrying value of this scheme remains an ongoing challenge, primarily due to the subsidised nature of the scheme.

Loan repayment is hindered by difficulties in collection from overseas-based borrowers, and the disincentives that the interest-free policy creates for early repayment of outstanding balances.

There have been measures undertaken since 2010 to reduce the cost of the loan scheme, including:

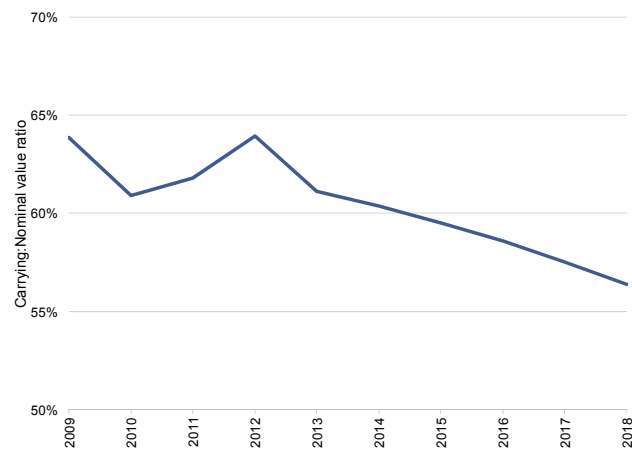
- ▶ policy changes aimed at reducing repayment times, such as freezing the repayment threshold and increasing the repayment obligation
- ▶ improving efficiency in the management of New Zealand-based borrowers, and
- ▶ initiating a programme for collection from overseas borrowers.

**Figure 4.53 – Cost of lending**



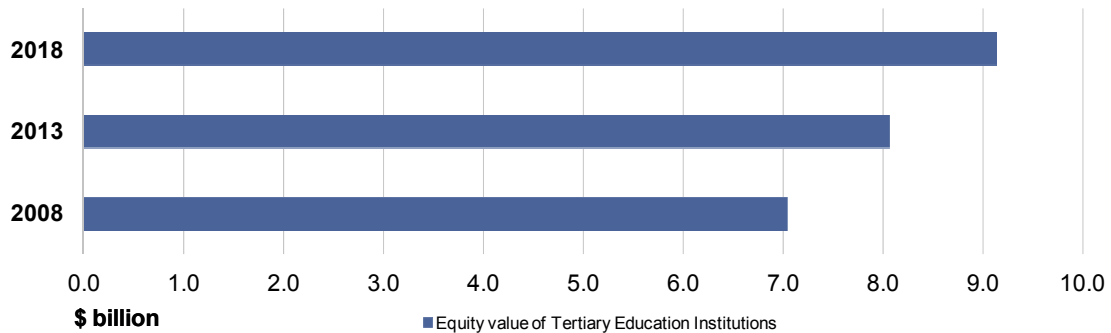
Source: IRD

**Figure 4.54 – Nominal to carrying value ratio**



Source: IRD

## Tertiary Education Institutions



### Asset profile

Tertiary Education Institutions (TEIs) are treated as equity accounted investment in the Crown accounts that reflects the equity that the Crown holds in:

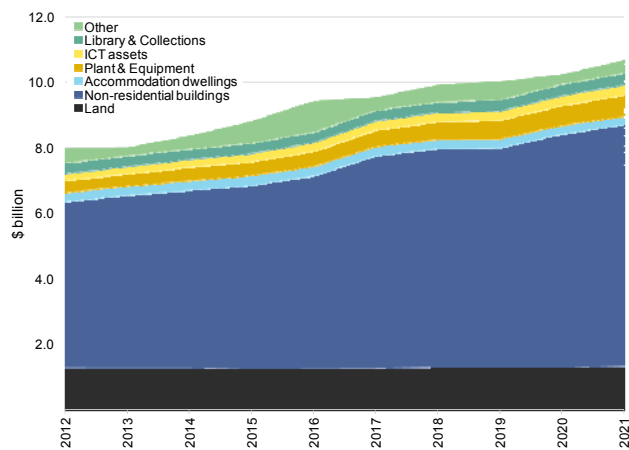
- ▶ eight universities
- ▶ 18 institutes of technology and polytechnics (ITPs), and
- ▶ three wānanga.

The TEIs are Crown entities, with approximately half of their revenue coming from government funding and the remainder coming largely from student fees and research income. Most TEI capital expenditure is not funded by the government.

TEIs collectively own or manage property, plant and equipment with a book valuation of around \$8.1 billion.<sup>29</sup> The majority of these assets are held by universities (\$6.3 billion) followed by ITPs (\$1.7 billion) and wānanga (\$0.1 billion).

The net book value of assets owned or managed by TEIs is forecast to increase to around \$10.4 billion in 2021. This increase is due to a large capital programme over the next ten years to refurbish and replace existing buildings.

**Figure 4.55 – TEI asset profile**



Source: Tertiary Education Commission

<sup>29</sup> TEIs report on a calendar financial year.

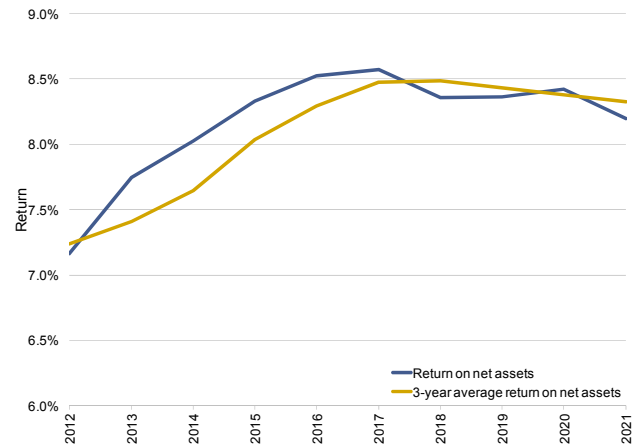
## Performance

As an equity investment, the performance of TEIs can be measured by examining the return they generate on net assets. In addition to this, the capital intensiveness of the TEIs is measured through the value of PP&E per equivalent full time student (EFTS).

### Return on net assets

Three-year average and annual forecast returns on net assets are forecast to improve steadily from just over 7% in 2012 to just over 8% by 2021.<sup>30</sup> This is due to a forecast increase in revenue from international students and greater research income.

**Figure 4.56 – Return on net assets**

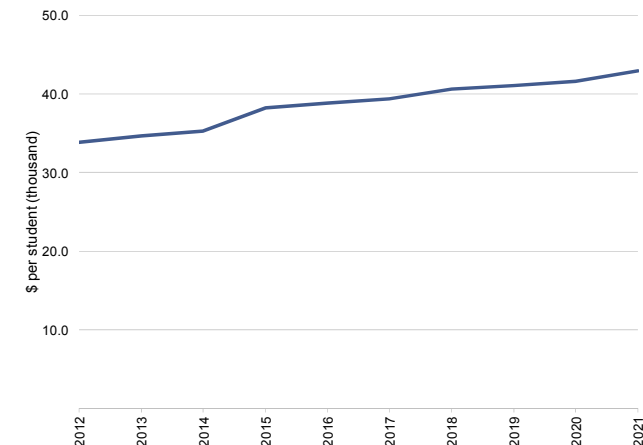


Source: Tertiary Education Commission

### PP&E per EFTS

The value of PP&E per EFTS was \$33,901 in 2012 and is expected to increase to \$42,991 in 2021. This anticipated increase reflects TEIs resolving a backlog of deferred maintenance as well as a capital expenditure programme aimed at repairing and replacing existing assets, with small amounts aimed at increasing capacity and improving the functionality of the assets to meet changing teaching and research needs.

**Figure 4.57 – PP&E per equivalent full time student**



Source: Tertiary Education Commission

## Opportunities and challenges

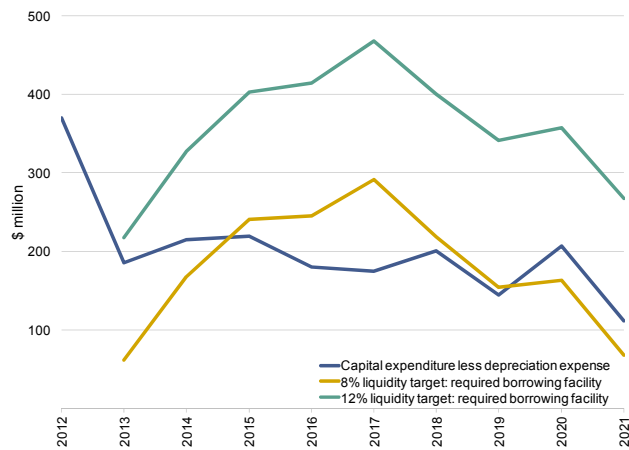
Since 2010 there has been a significant improvement in the level of centrally held information about TEI asset management capability. In early 2013 all universities and ITPs were asked to obtain assessments of their asset management capability from an independent asset management specialist. These assessments produced tailored improvement plans that outlined steps that those TEIs could take to improve value for money from assets and planned capital expenditure. The Tertiary Education

<sup>30</sup> Return on net assets calculated on the basis of operating surplus/deficit before interest (expense and revenue), tax, depreciation, amortisation and one-off abnormal items (also known as EBITDA) measured against total net assets.

Commission will monitor TEIs' progress implementing recommendations from these reports over the next several years.

Over the short to medium term, TEIs are expected to make significant capital investment. Many TEIs forecast that to undertake planned capital expenditure they may require new debt facilities to maintain adequate levels of liquidity. This will require careful management.<sup>31</sup>

**Figure 4.58** – Capital expenditure and required borrowing facilities



Source: Tertiary Education Commission

<sup>31</sup> Information on affordability and debt is indicative only. It does not take into account the treasury decisions of TEIs regarding concurrently held long-term debt and has not been moderated by confidence ratings in the quality of forecasts provided by different TEIs.