

# Returning to surplus: New Zealand's recent fiscal consolidation experience

Dhritidyuti Bose, Renee Philip and Richard Sullivan\*

New Zealand Treasury

March 2016

## Abstract

New Zealand's fiscal outlook deteriorated following the Global Financial Crisis, and in late 2008 fiscal projections showed net government debt in New Zealand increasing from 5% of GDP to around 40% within 10 years, mostly reflecting permanently lower expectations for future tax revenue. The structural deficit peaked at 4% of GDP in 2011. These circumstances were compounded by the significant costs associated with the Canterbury earthquakes in 2010 and 2011. In 2011, the Government set an ambitious target to return the Budget to surplus by 2014/15, and began a period of fiscal consolidation. A surplus has recently been achieved, and net debt is now expected to peak just above 25% of GDP. The surplus was predominantly achieved by slowing the growth rate of nominal spending so that expenses-to-GDP declined. While there has been some adjustment to policy parameters on the spending side, most of the consolidation has been achieved through efficiency savings and reprioritisation. New Zealand's fiscal framework – a combination of fixed nominal baselines for most expenditure alongside comprehensive top-down constraints on new spending through the Budget – provided effective tools for controlling expense growth. Nevertheless, the return to surplus is only the first step in fiscal consolidation and challenges remain to ensure these surpluses are sustained, and to rebuild the fiscal buffers that existed prior to 2009.

JEL classification: E62 – Fiscal Policy E65 – Studies of Particular Policy Episodes H62 – Budget Deficit; Surplus

Keywords: Balanced Budget, Fiscal policy, Fiscal institutions, Fiscal Management Approach, Fiscal Policy, Fiscal Target, National Budget, Public Finance Act, Surplus.

\*This paper was prepared for the Banca d'Italia Workshop on Fiscal Policy on 31 March-2 April 2016 in Rome, Italy. The views expressed in this paper are those of the authors and do not necessarily reflect the views of the New Zealand Treasury. Corresponding author: [renee.philip@treasury.govt.nz](mailto:renee.philip@treasury.govt.nz). The authors would like to thank Kamlesh Patel and Ben Udy for their contributions to this paper. Andrew Craig, Mario DiMaio, Nicola Haslem, John Janssen, Simon McLoughlin, and Mark Vink provided valuable comments on an earlier version of this paper.

# Returning to surplus: New Zealand's recent fiscal consolidation experience

## 1. Introduction

As it did for most countries, the Global Financial Crisis (GFC) caused significant negative effects on New Zealand's economic outlook and its fiscal position. Fiscal projections in late 2008 showed net government debt in New Zealand increasing from 5% of GDP to around 40% within 10 years<sup>1</sup>. This mostly reflected falling revenue and higher spending resulting from a weaker economic outlook, and discretionary policy changes, most of which were made prior to the GFC. The fiscal position did indeed deteriorate rapidly – the estimated structural balance declined from around 2% of GDP in 2008 to -4% of GDP in 2011. These circumstances were compounded by the significant fiscal impact of the Canterbury earthquakes in 2010 and 2011, which have been estimated to have caused damage (to buildings, loss in income etc) of around 10% of GDP<sup>2</sup>.

Seven years on, the operating balance<sup>3</sup> and structural balance have recently returned to a small surplus, and net debt looks likely to peak just over 25% of GDP and to decline to around 20% of GDP by the early 2020s. This outcome is significantly better than was expected at the end of 2008. The improvement has been achieved predominantly through adjustments on the expenditure side, without significant increases in tax rates or major cuts to government services or benefit levels. Revenue recovered alongside economic growth, but overall the economy, and to a lesser extent tax revenue, has grown more slowly than expected in late 2008.

The fiscal consolidation is not complete. There is uncertainty around the level of the structural surplus, and forecast surpluses for the next two years are small making them vulnerable to adverse shocks. Net debt is yet to reach its projected peak and remains above levels considered prudent in the medium-term. Nevertheless, the return to structural surplus provides a good opportunity to take stock of New Zealand's fiscal consolidation experience since 2008.

The recent fiscal experience has been supported by the Government's fiscal targets, and in particular, the high-profile goal to return to surplus by 2014/15. This self-imposed target provided political motivation to eliminate the deficit. New Zealand's fiscal management approach – the combination of fixed nominal baselines and comprehensive top-down constraints on new spending through the Budget – provided an effective tool for controlling expense growth. Further, changes to the operation of the state sector shifted the focus of departments from increasing spending towards working together to achieve results within an assumption of limited new funding, which helped achieve significant efficiency savings and reprioritisation.

These institutional factors contributed to the sizeable turnaround in the deficit. Nevertheless, challenges remain. The return to operating surplus is the first step in the journey of fiscal consolidation. The fiscal buffers that were built up prior to the GFC have been run down and will need to be rebuilt, and this will require a greater focus on managing capital spending as well as operating flows. There are risks to the economic outlook that will make it challenging to maintain

---

<sup>1</sup> Based on the current definition of net debt, which was introduced in Budget 2009 (see Box 1 for details).

<sup>2</sup> Parker and Steenkamp 2012.

<sup>3</sup> Unless otherwise stated, operating surpluses or deficits in this paper refer to the operating balance before gains and losses (OBEGAL). New Zealand's operating balance and other fiscal indicators are not directly internationally comparable (see Box 1).

surpluses and begin to reduce debt, for example, if the terms-of-trade does not recover as expected. And the sustainability of the approach to fiscal consolidation through ongoing efficiency savings and reprioritisation is not clear.

The rest of the paper is organised as follows. Section 2 outlines the phases of New Zealand's recent fiscal experience: the pre-crisis backdrop, the post-crisis deterioration over 2008 and 2009, and the fiscal adjustments pursued since 2011<sup>4</sup>. It also discusses the contribution of fiscal policy to aggregate demand over these phases as well as the wider macroeconomic motivations influencing the pace of fiscal consolidation. Section 3 considers the role of the various institutional factors in New Zealand that have supported the fiscal consolidation. In Section 4, we look at what lessons we have learnt, and some of the remaining challenges. Section 5 concludes.

## **2. Phases of recent fiscal experience**

### **2.1. Pre-crisis backdrop**

In the lead up to the crisis New Zealand experienced a sustained period of economic expansion, with real GDP growth averaging nearly 4% per year from 1999 to 2007<sup>5</sup>. Spurred on in part by a rapidly improving terms of trade, strong migrant inflows and a strong global economy, the beginning of the century saw strong growth in employment, incomes, consumption and investment. Domestic demand was the main driver of growth and the cycle was associated with strong credit growth and high house price inflation. Inflation had been near the top of, or above, the 1-3% target range for much of the 2000s and official interest rates rose from 4.5% in March 1999 to a high of 8.25% in July 2007.

In the early 2000s the Government's fiscal strategy aimed to increase operating surpluses to a level sufficient to repay debt and to accumulate financial assets in the New Zealand Superannuation Fund (NZS Fund).<sup>6</sup> Initially this strategy was achieved by managing expenditure growth. However, by the mid-2000s tax revenues were consistently higher than expected reflecting stronger-than-expected economic growth (Mears et al 2010), and the surplus rose quickly.

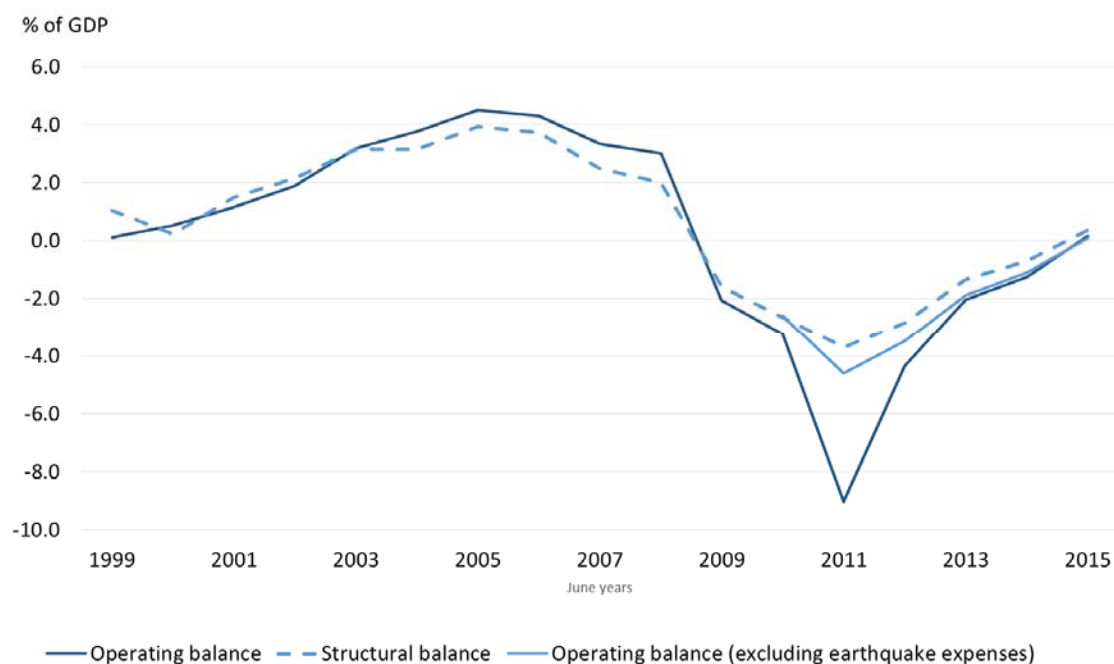
---

<sup>4</sup> This paper focuses on New Zealand's fiscal adjustment after the GFC in 2008. Other papers (See Janssen, 2001, 2015) have analysed New Zealand's fiscal adjustment experience of the 1990s. New Zealand had implemented fiscal consolidation and introduced the Fiscal Responsibility Act (FRA) in 1994 (subsequently incorporated into the Public Finance Act) in response to the deterioration of debt in the early 1990s. The fiscal adjustment was primarily expenditure based and contributed to achieving an operating surplus in 1994, having run deficits since 1979. Operating surpluses were maintained until 2008.

<sup>5</sup> Unless otherwise stated, economic and fiscal data reported in this paper are in terms of fiscal years ending June.

<sup>6</sup> The NZS Fund (a sovereign wealth fund) was established in 2001 to prefund, from current tax revenue, some of the projected increase in public pension costs (New Zealand Superannuation) associated with the ageing population (McCulloch and Frances, 2001). New Zealand Superannuation is a universal, flat-rate benefit paid by the Government to New Zealanders once they reach the qualifying age (currently 65), at the rate of 66% of average ordinary time wages after tax for a qualifying couple. The long-term fiscal challenges expected to result from population ageing have been well documented elsewhere (e.g. The Treasury, 2013c).

**Figure 1 – Operating balance and structural balance**



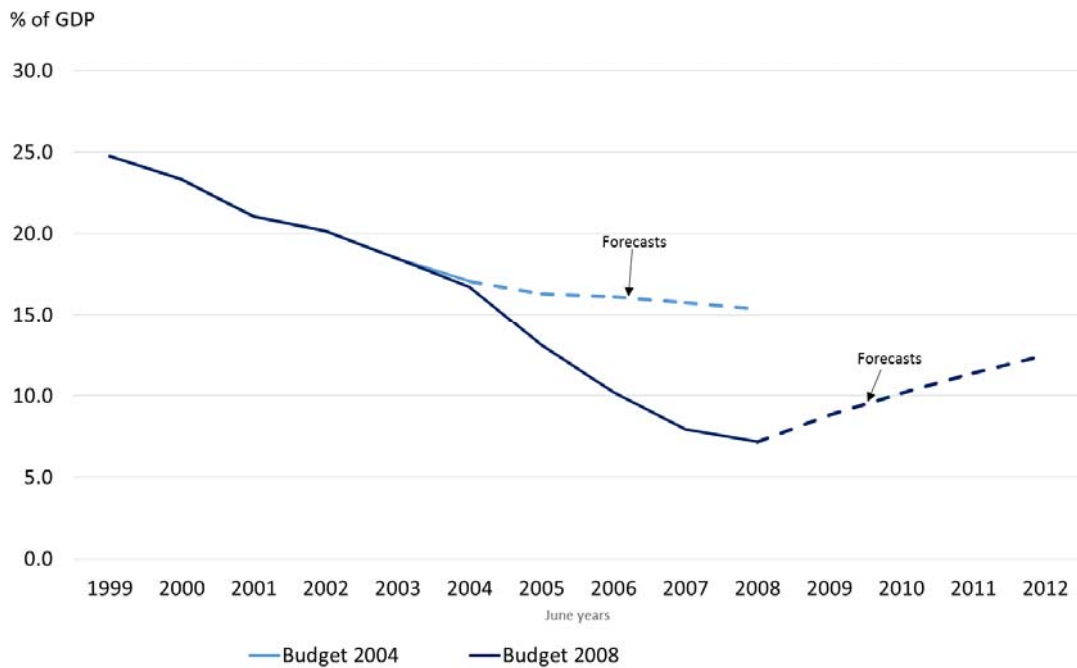
Source: New Zealand Treasury

The length of the economic expansion made it difficult to determine how much of the increase in economic activity, and therefore tax revenue, was structural and how much was cyclical (Mears et al 2010). Over the period 2005-2008, the Treasury increased its estimates of structural revenues by around 1 percentage point of GDP each year, and by 2008 the Treasury considered most of the operating surplus was “structural” (Figure 1).

Much of the stronger-than-expected tax revenues were used to strengthen the balance sheet, and net debt fell faster than expected (Figure 2). With most of the surplus thought to be structural, and debt reaching low levels, there was growing pressure to reduce the level of surpluses. The Government increased new spending in Budgets 2004-2008<sup>7</sup>. These Budgets expanded existing services (e.g. health care, education, and justice), and increased transfers through a number of flagship projects – income subsidies for low and middle income working families (“Working for Families” in Budgets 2004 and 2006), interest-free student loans (Budget 2006), and a subsidised saving scheme (KiwiSaver, Budgets 2005 and 2007). Expenses also increased as the cost of existing programmes, such as early childhood education, turned out higher than expected (Mears et al 2010). Overall, structural expenses are estimated to have increased by around 8 percentage points of GDP between 2004 and 2009

<sup>7</sup> New Zealand Budgets are usually released in May or June, and apply to the following fiscal year (1 July – 30 June).

**Figure 2 – Net core Crown debt forecast revisions<sup>8</sup>**



Source: New Zealand Treasury

The government also reduced the corporate tax rate in 2007 and announced a significant package of personal tax rate reductions in Budget 2008 (1.5% of GDP per forecast year to be implemented in three tranches from October 2008 to April 2011). The 2008 tax reductions were announced when the economy began slowing but before it was known that the economy was in recession, and prior to the onset of the GFC. When the tax reductions were announced in Budget 2008, the Treasury was still predicting the operating balance to remain in surplus through the forecast period, albeit at a lower level.

With the benefit of hindsight, the degree to which the surpluses were structural was overestimated. Although the tax reductions announced in 2008 turned out to be well-timed from the perspective of stabilising the economy following the GFC, their permanent nature added to the subsequent structural deficits. Nevertheless, the strengthening of the balance sheet through the mid-2000s meant that there was a large fiscal buffer that would help manage the shocks that were to come.

<sup>8</sup> Net core Crown debt data in Figure 2 have been adjusted to the current definition, which differs from the definition published in Budgets prior to 2009. See Box 1 for further details.

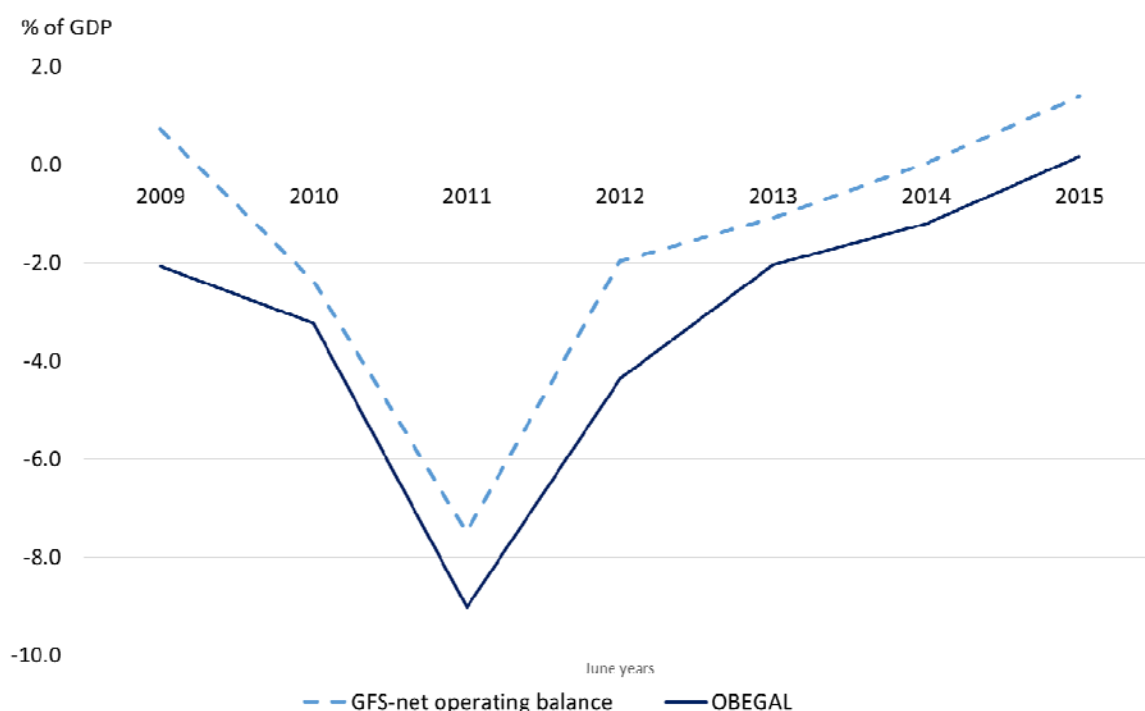
### Box 1: New Zealand's fiscal indicators

New Zealand's government financial statements are prepared in accordance with New Zealand generally accepted accounting practice (GAAP) designed for public entities. This differs from the IMF's government finance statistics (GFS) framework, which is more common internationally. Some of the key differences relate to entity coverage as well as differences in the treatment of some transactions (defence weapons and some levies).

#### Operating balance

The targeted measure of surplus/deficit in New Zealand is the operating balance before gains and losses (OBEGAL), which is the balance between operating revenue and operating expenses. The OBEGAL is reported for the total Crown reporting entity (which includes all government-owned entities including commercial entities). Gains and losses that reflect changes in market prices are excluded, but movements that reflect the impact of policy decisions are included (e.g. impairments and write-offs on financial assets (like student loans) and earthquake provisions). In contrast, the GFS operating balance excludes commercial entities and valuation effects which are captured separately under 'other economic flows'. The OBEGAL has been lower than the GFS-operating balance primarily because it includes valuation changes on assets and liabilities (Figure 3).

**Figure 3 – Alternative operating balance measures**

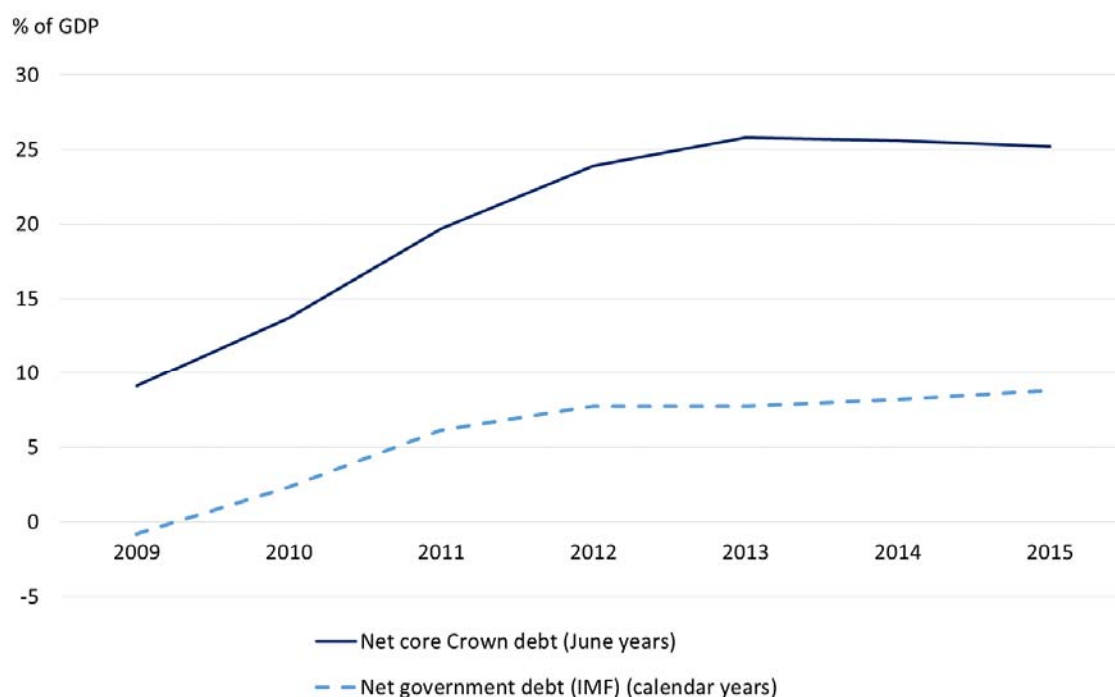


Sources: New Zealand Treasury, Statistics New Zealand

## Net debt

The Government's debt target is measured by net core Crown debt. The core Crown reporting entity mostly consists of government departments, the New Zealand Superannuation Fund (NZS Fund) and the Reserve Bank (commercial enterprises and independent Crown entities are excluded). Net core Crown debt is calculated by subtracting core Crown financial assets from gross debt. On the asset side, only relatively liquid financial assets are included (cash, cash equivalents and marketable securities). Financial assets held by the NZS Fund are excluded because these are ring-fenced for long-term fiscal pressures and their time-varying and volatile nature can complicate communication of a net debt target. Advances (eg, student loans) are excluded because these are less liquid than other financial assets and are made for public policy reasons rather than treasury management purposes<sup>9</sup>. A GFS-based measure of net debt would generally include NZS Fund assets. As a result, New Zealand's reported net debt indicator is higher than internationally comparable measures (Figure 4).

**Figure 4 – Alternative net debt measures**



Sources: New Zealand Treasury, IMF

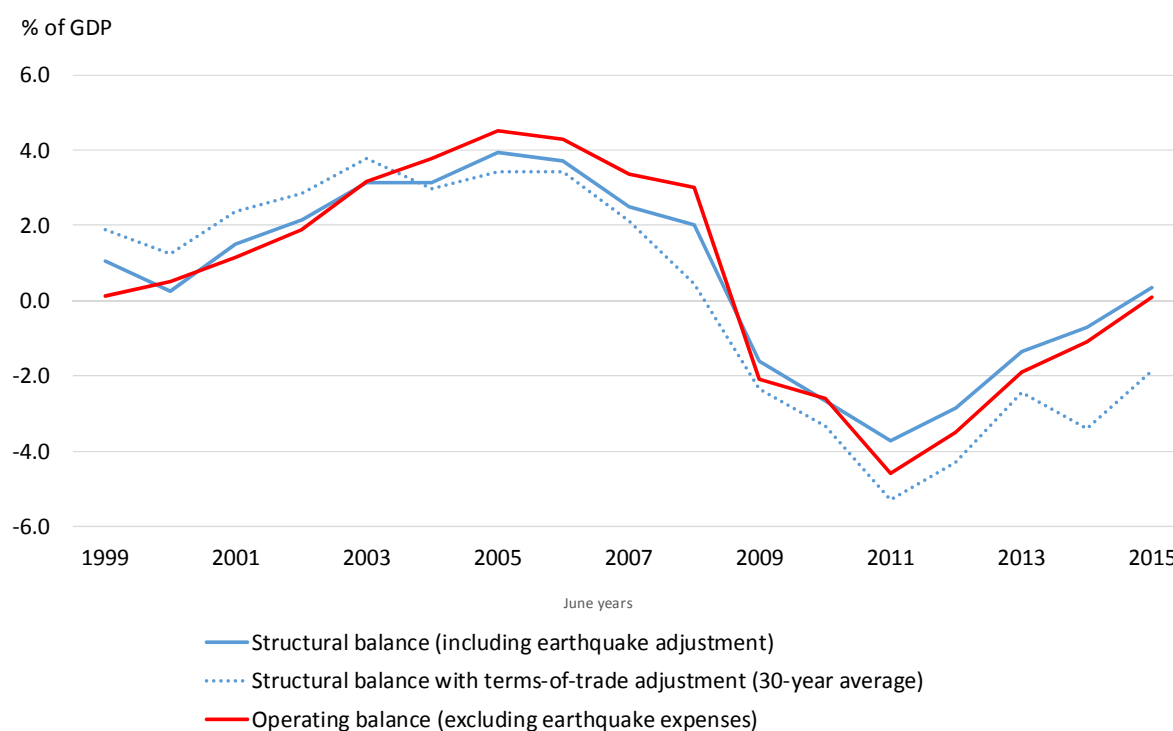
<sup>9</sup> Prior to Budget 2009, New Zealand's "net debt" measure included advances as a financial asset, and therefore the level of net debt was around 5 percentage points of GDP lower than the current definition. In this paper, all references to net debt levels or projections prior to Budget 2009 have been adjusted to the new definition.

## Structural balance

The structural balance adjusts the OBEGAL for the cyclical position of the economy. The structural balance is subject to uncertainty because it uses estimated variables and is sensitive to new information, particularly regarding the output gap. Significant “one-off” impacts on expenses from the Canterbury earthquake are removed from estimates of the structural balance. This is to give a better indication of underlying fiscal performance. The Treasury also publishes a terms-of-trade adjusted structural balance (Figure 5). For more details on the calculation, see Parkyn (2010).

The structural balance relates to the total Crown reporting entity. As such, estimates of structural revenue and structural expenses in this paper also relate to the total Crown. This contrasts to the Government’s expense target of 30% of GDP, which relates only to core Crown expenses.

**Figure 5 – Structural balance**



Source: New Zealand Treasury

## Fiscal impulse indicator

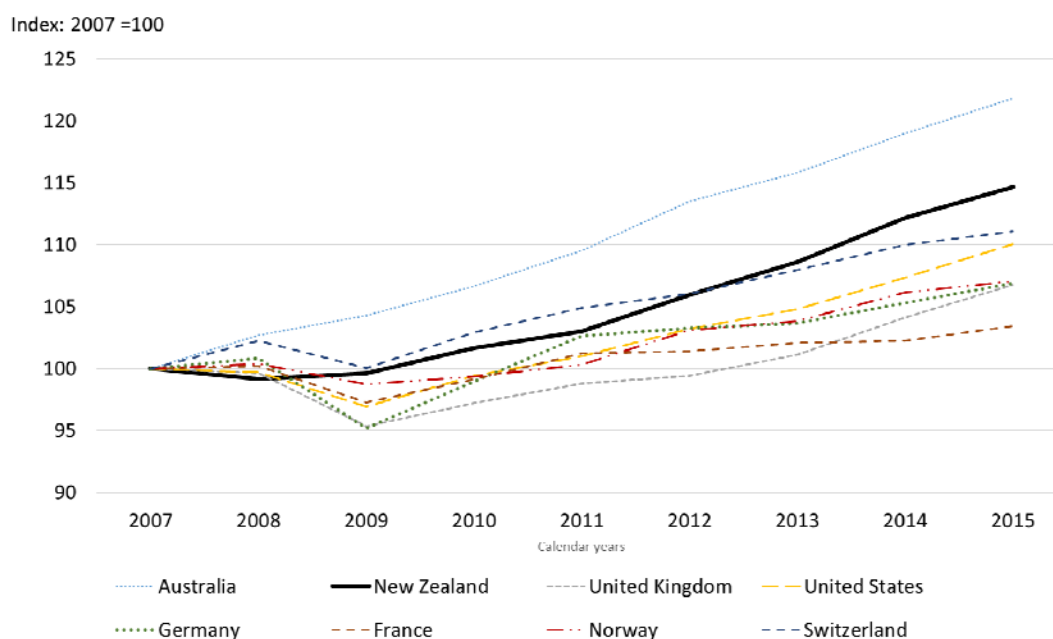
The fiscal impulse indicator is the Treasury’s estimate of the extent to which discretionary fiscal policy is having an expansionary (positive) or contractionary (negative) impact on aggregate demand (Figure 11). Although the year-to-year change in the structural budget balance is a rough indicator of the contribution of discretionary fiscal policy to aggregate demand, the fiscal impulse indicator aims to provide a more accurate guide. It calculates the change in a cash-based version of the fiscal balance (a cyclically-adjusted primary balance supplemented by capital expenditure), excluding some expenditure items that are assessed to have a limited direct impact on aggregate demand (for example, capital expenditure on defence which is mostly imported equipment). For more detail on the calculation see *Additional Information*, Budget Economic and Fiscal Update 2015.



## 2.2 Post crisis deterioration and Budget 2009 response

The New Zealand economy entered recession in early 2008, before most other countries, partly reflecting a drought in 2007/08. Macroeconomic conditions deteriorated significantly between the Budget in May and the end of 2008 as the impact of the GFC became apparent and amplified the impact of domestic recession. The New Zealand economy contracted by over 3% in real terms from the beginning of 2008 to the middle of 2009, and official interest rates were reduced from 8.25% to 2.5% over this time. Although the New Zealand economy entered a recession prior to many other countries, the decline in real GDP following the GFC was less sharp relative to many European economies and the recovery has also been faster (Figure 6).

**Figure 6 – Real GDP<sup>10</sup>**



Source: IMF World Economic Outlook, October 2015

Despite low levels of net debt in 2008 (around 5% of GDP), the fiscal position was forecast to deteriorate sharply as the outlook for nominal GDP growth, and therefore tax revenue growth, deteriorated, the first tranche of tax reductions took effect (on 1 October 2008), and spending on unemployment benefits began to rise.

A new National-led government took office in late 2008. The Government recognised that it was appropriate for the fiscal position to deteriorate as tax revenue fell and benefit expenses increased. The strong starting point for the fiscal position meant there was no immediate pressure to reduce spending, and the Government was clear that doing so could exacerbate the recession. The Government announced a fiscally neutral package to implement its pre-election commitments (an additional round of personal tax reductions to take effect on 1 April 2009, broadly offset by a

<sup>10</sup> GDP data from the IMF for New Zealand differs slightly from the data elsewhere in this paper, which is sourced from Statistics New Zealand. As the IMF data is based on calendar years, the decline in real GDP in New Zealand appears less pronounced due to the timing of the contraction.

reduction in KiwiSaver subsidies<sup>11</sup> and the removal of R&D tax credits). It also brought forward some capital spending (infrastructure spending on school property, roads and housing projects) and increased the planned level of capital spending to be announced over the next few Budgets. In December 2008, the Treasury was forecasting persistent operating deficits. Net government debt was projected to rise to around 40% of GDP in June 2018 and further to around 50% by 2022/23, and was not projected to decline in the absence of any policy change.

In early 2009, transitional assistance was announced to support firms, households and redundant workers (small-business relief package and ReStart assistance package for redundant workers).

By Budget 2009 it was becoming clearer that part of the slowing in tax revenues was structural – previous forecasts had been optimistic and most forecasters were now revising down their estimates of potential output going forward. The Treasury’s forecast level of potential GDP for the 2013 fiscal year was revised down by 5% between December 2008 and Budget 2009. This contributed to increasing estimates of the forecast structural deficit.

Budget 2009 was the first post-GFC Budget. While the December 2008 announcements had focused on supporting the economy through the downturn, Budget 2009 announced measures to consolidate the fiscal position. These were mostly “back-loaded”, intended to take effect once the economy was recovering:

- The second and third tranches of personal tax reductions (due to take effect in April 2010 and April 2011) were postponed.
- Forecast new operating allowances<sup>12</sup> for Budget 2009 and all future Budgets were reduced<sup>13</sup> and savings were enabled through spending reprioritisation, dropping unfunded commitments and halting employment growth in public service administration.
- Contributions to the NZS Fund were suspended until sufficient surpluses had been achieved.

The policy response was expected to reduce the debt-to-GDP ratio from 2015 onwards. Nevertheless, Budget 2009 was still projecting a decade of operating deficits with a return to surplus from 2019 (Figures 7 and 8).

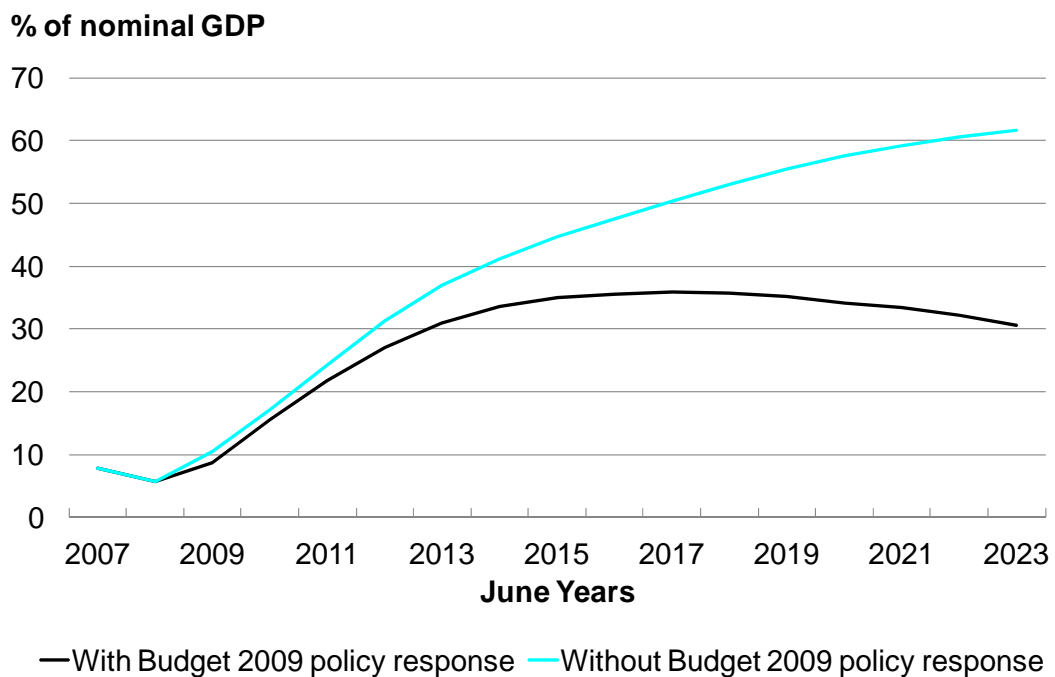
---

<sup>11</sup> KiwiSaver is a voluntary work-based savings scheme (with automatic enrolment and opt-out provisions). Employees who contribute are entitled to employer and government contributions, up to a cap. The changes in 2009 involved reducing minimum contribution rates, removing the employer tax credit, and reducing the member fee subsidy.

<sup>12</sup> The operating allowance is an allocation for all new spending and revenue decisions in a Budget. For a description of operating allowances see Box 2.

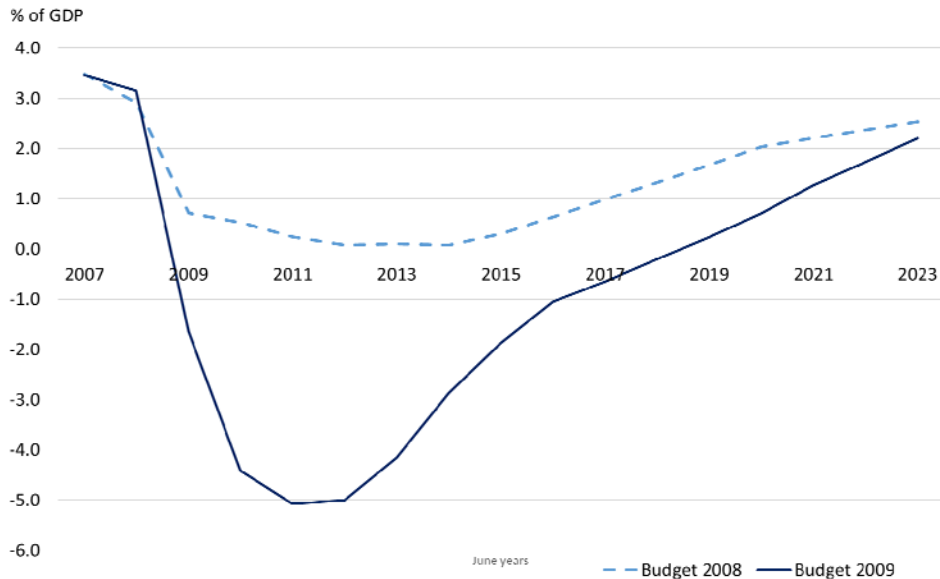
<sup>13</sup> Although net new spending Budget 2009 was lower on average than previously signalled, the Budget 2009 initiatives were front-loaded into the 2009/2010 financial year to help take the worst edges off the effects of the recession. The allowance for net new spending in Budget 2009 was revised down by less than in future Budgets.

**Figure 7 – Net core Crown debt, Budget 2009 forecasts**



Source: New Zealand Treasury

**Figure 8 – Operating balance, Budget 2008 and Budget 2009 forecasts**



Source: New Zealand Treasury

The scale of revisions to the economic and fiscal outlook meant that it was difficult to disentangle structural shifts in the economy from discretionary policy changes. As such, the Treasury considered the fiscal impulse indicator was not a reliable guide to the stance of fiscal policy at the time. Current estimates suggest that fiscal policy was stimulating aggregate demand during 2009 and 2010, which helped support the economy through the recession.

By the time of Budget 2010, stimulatory monetary conditions, a global recovery and increased export volumes were expected to support an economic recovery in New Zealand. The terms-of-trade rebounded to historical highs on the back of booming dairy prices. There was a sense that the worst of the crisis had passed. The Treasury was forecasting real GDP growth to recover to about 3% in each of the four years following the 2009/10 recession. The deficit was forecast to gradually decline, returning to surplus in 2015/16 (beyond the forecast horizon at the time). Budget 2010 announced a modest increase in net spending along with a broadly fiscally neutral tax package – reducing personal income tax rates and increasing indirect tax rates – with the aim of raising the supply of labour and rebalancing the economy from private consumption and government spending towards investment and exports.

### **2.3 Fiscal adjustment since 2011, and another shock**

The economic recovery proved to be slower and more drawn out than anticipated through 2010 to 2012. In addition, two large earthquakes in Canterbury in late 2010 and early 2011 had a significant impact on the Crown accounts and further slowed the recovery.

The earthquakes in Canterbury were very destructive, resulting in significant loss of life and turmoil for those involved. Economic activity in Canterbury fell significantly in the immediate aftermath and reconstruction continues today. Early damage estimates suggested the damage (to buildings and loss of income etc) was likely to represent around 10% of GDP, which compared with around 3 to 4% of GDP in the case of the 2011 Japanese earthquake and tsunami, for example (Parker and Steenkamp 2012). The Government estimated it would spend \$15 billion on reconstruction as well as provided a \$5 billion assistance package<sup>14</sup>. This spending is excluded from our assessment of structural operating balances (most of which occurred in the 2011 fiscal year), although any impact on net debt is included<sup>15</sup>.

In Budget 2011, the Government set out a goal to return to surplus no later than 2015/16, which was subsequently brought forward to 2014/15<sup>16</sup>. The target was set for the actual balance rather than the structural balance, although it was “subject to any significant shocks”.

Nevertheless, as the global economy recovered more slowly than expected, forecasts for tax revenue were revised down in Budget 2011 and again in Budget 2012 (Figure 9). In addition, the slow recovery led the Treasury to lower potential output estimates by approximately 2% in late 2012 reflecting low productivity growth (which was in addition to the 5% reduction in the immediate aftermath of the crisis). These economic developments meant that the magnitude of expenditure adjustments required to return to surplus in 2014/15 was larger than originally expected.

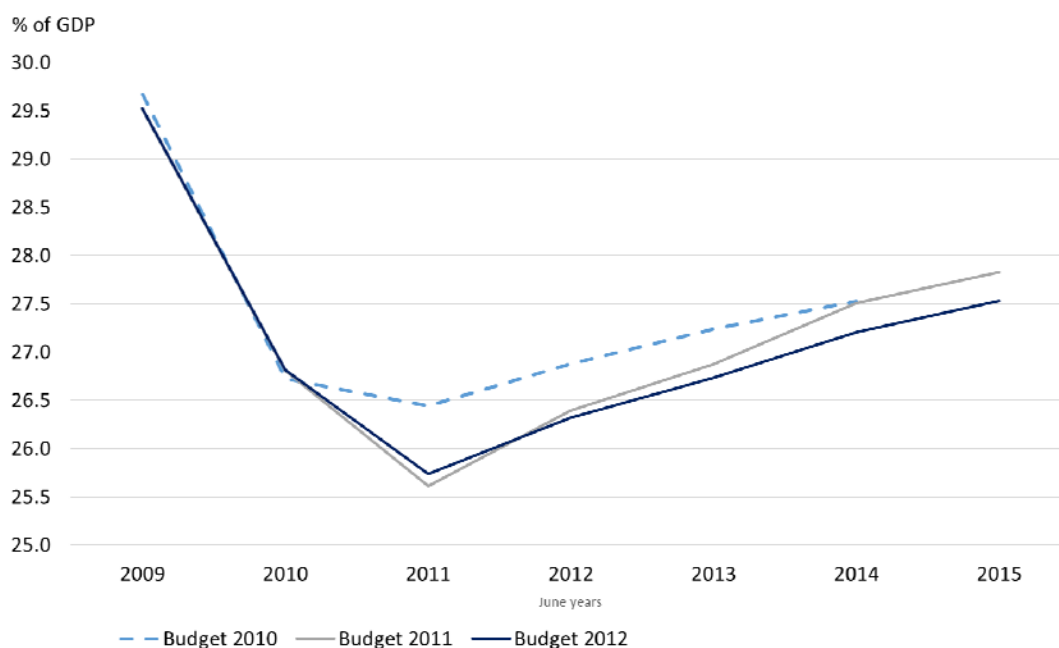
---

<sup>14</sup> The current estimated total direct cost to the Crown is \$17 billion, of which \$4.4 billion represents capital expenditure. Most of the \$12.5 billion negative effect on OBEGAL was applied in the 2010/11 fiscal year while some of the capital investment is yet to take place. Around \$0.5 billion of this total cost reflects non-cash costs such as asset write-offs.

<sup>15</sup> Debt increases attributable to earthquake related costs are around \$9.6 billion. In addition, \$6.9 billion is related to EQC claim costs and as such would have come from the financial assets held in the Natural Disaster Fund.

<sup>16</sup> The target was brought forward during the election campaign in late 2011.

**Figure 9 – Core Crown tax revenue**



Source: New Zealand Treasury

As a result, Budgets from 2011 implemented a fiscal strategy based on reducing the growth of core Crown operating expenses so as to return to surplus. A four-pronged approach was adopted:

- New operating spending was reduced successively over Budgets 2011-2013, which indirectly provided incentives for efficiency savings and reprioritisation by departments.
- Direct efficiency savings were sought on base spending across the state sector.
- Changes were made to specific programmes to control their long-term cost drivers and make them more targeted.
- The system of social welfare payments was reformed.

Efficiency savings aimed to achieve a better delivery of services while reducing costs across State sector departments through improving efficiency of back-office functions. This included collective processes such as joint procurement, shared services and benchmarking. Budget 2011 included an “efficiency dividend” of around \$1 billion over three years, the majority of which involved eliminating central funding for various state sector retirement schemes and instead requiring State sector employers to meet these costs through their own funds.

Budget 2011 expected to generate average efficiency savings of 0.1% of GDP per year over the forecast period, and similar magnitudes were identified in the subsequent four Budgets. These estimates only include the direct efficiency savings and reprioritisation explicitly identified through the Budget process. They exclude indirect efficiency savings and reprioritisation that have been encouraged within individual departments through tight top-down expenditure constraint, and as such will underestimate the total savings over this period.

Changes to specific programmes that had experienced rapid cost escalation were also introduced. Key policy measures at Budget 2011 include:

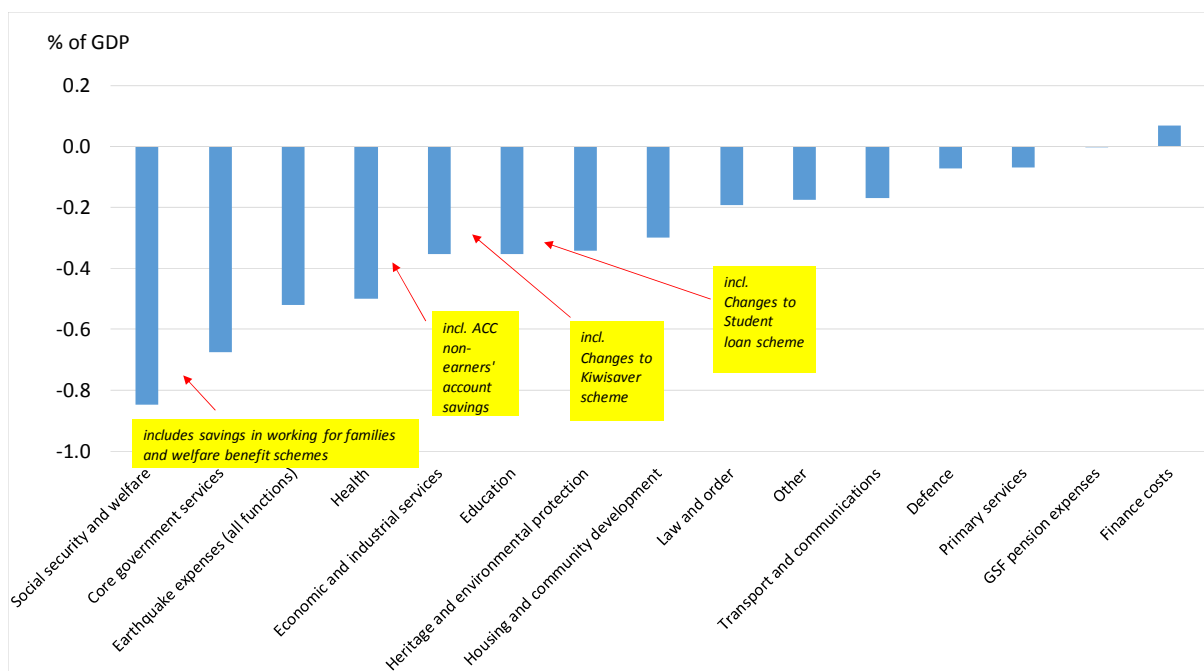
- Reduced contributions to ACC as cost escalations were managed successfully;

- Changes to the Working for families scheme to put it on a more sustainable financial footing, while minimising the impact on families and lessening any effects on work incentives. A number of families higher up the WFF income scale were to receive less than before;
- Restrictions on eligibility for student loans and more stringent criteria for repayments; and
- Reduced Kiwisaver subsidies, regular government contributions were halved (offset by increased contributions coming from members and employers).

Overall these changes were expected to generate average savings on programmes of about 0.5% of GDP per year by the end of the forecast period. The largest savings as a proportion of GDP since 2011 were in the areas of health, education and social security, despite these areas seeing an absolute increase in funding over that time (Figure 10 and 11). The difference is due to these large expenditure classifications rising slower than GDP growth in that time.

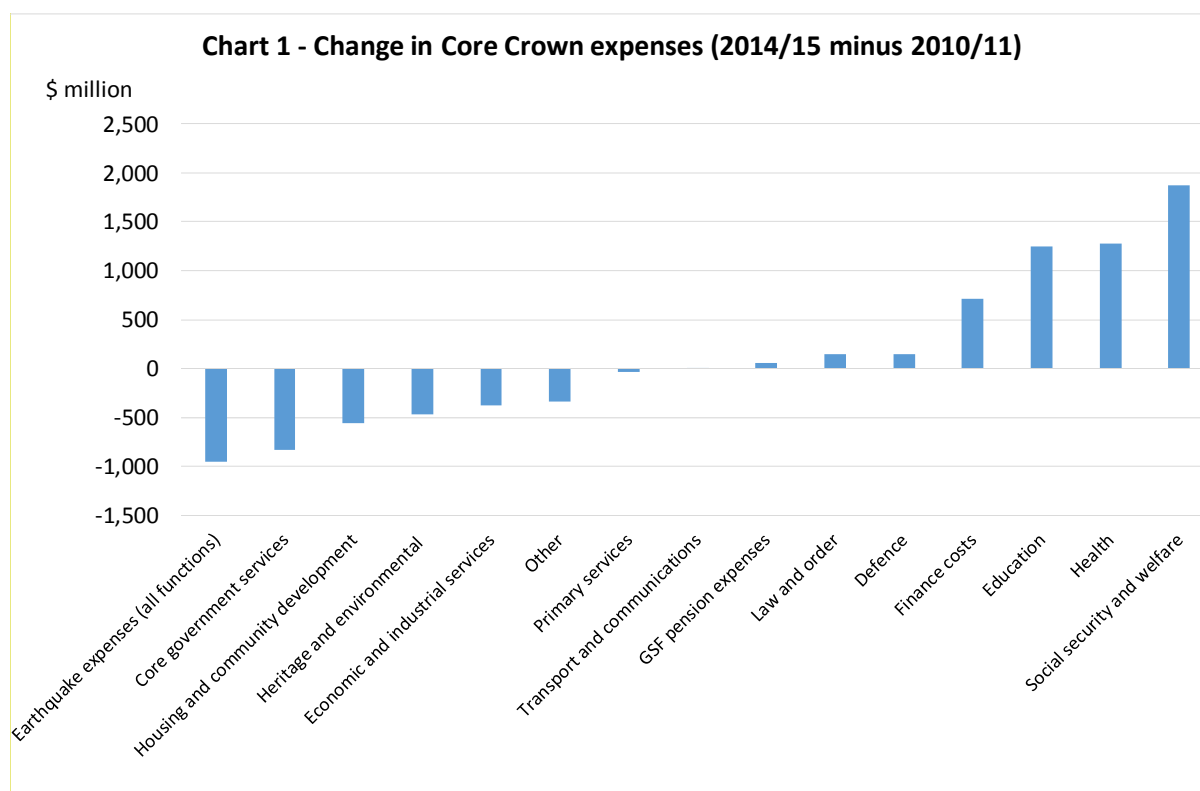
While these were significant expenditure reductions, over the full consolidation period they represent a relatively small proportion of total savings, most of which were through efficiency savings at the department level, many of which (such as reduced floorspace per worker) cannot be directly measured.

**Figure 10 – Changes in core Crown expenses (2010/11-2014/15) (% of GDP\*)**



\* Calculated as expense-to-GDP ratio for 2014/15 minus the ratio for 2010/11  
 Source: New Zealand Treasury

**Figure 11 – Changes in core Crown expenses (2010/11-2014/15) (\$ billions)**

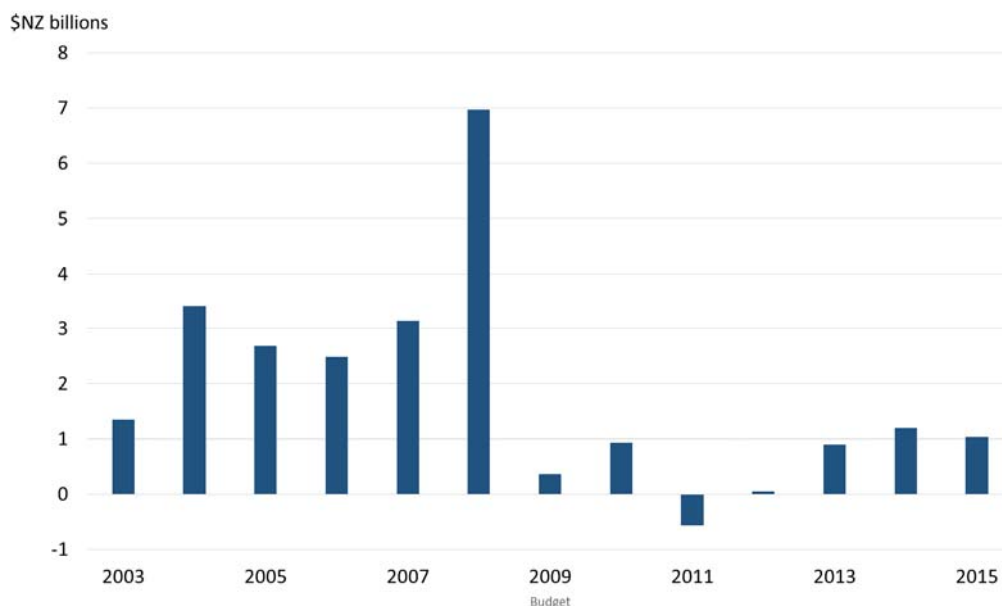


Source: New Zealand Treasury

In Budgets 2011 and 2012 almost all new spending was fully offset by efficiency and programme savings resulting in ‘net zero’ Budgets<sup>17</sup> (Figure 12). While these were considered relatively tight budgets for New Zealand, they did not involve outright falls in nominal expenses that were seen in some other countries, and the consolidation was a more “back-loaded” approach than occurred in some of the countries more severely affected by the GFC (The Treasury 2013b). This back-loaded approach to consolidation was permitted by the strong initial fiscal position, more favorable economic conditions, and the early signaling of credible adjustment paths all helping to alleviate market concerns.

<sup>17</sup> ‘Net zero’ budgets refer to effectively no increase in net expenditure (or a near-zero increase), i.e. new spending was offset by savings, including some revenue raising through changes to tax credits. However, in the case of Budget 2011, expenditure associated with the Canterbury earthquake of \$5.5 billion was excluded from the ‘net zero’ Budget calculation.

**Figure 12 – New operating allowances in each Budget (final year impact)<sup>18</sup>**



Source: New Zealand Treasury

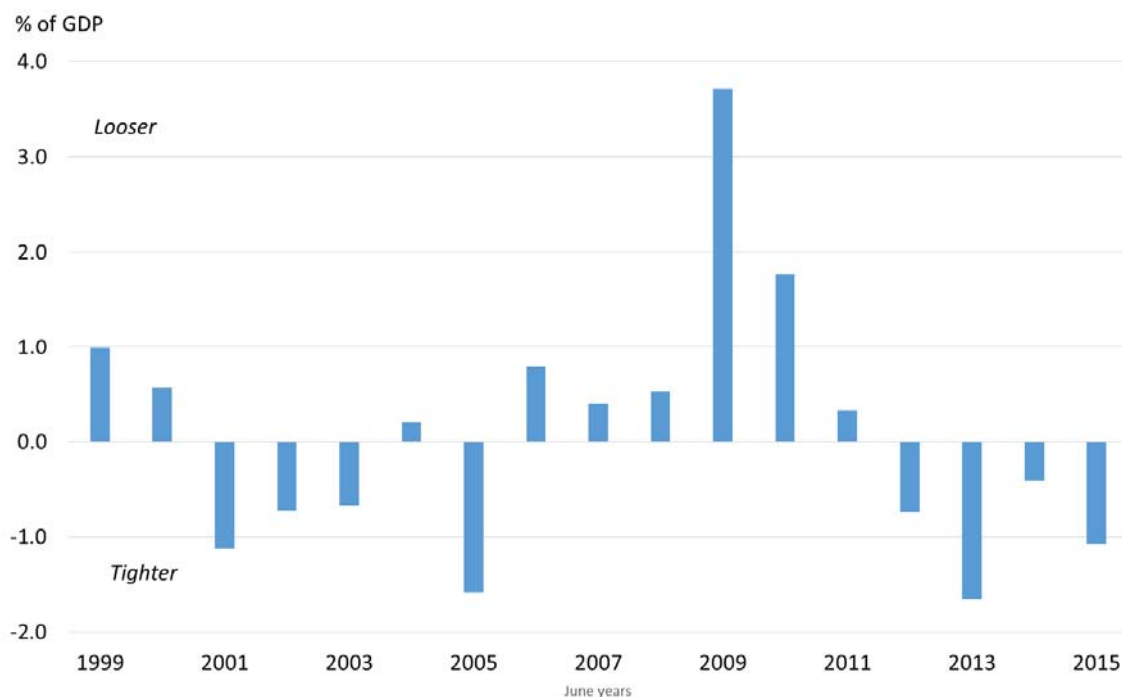
Having been expansionary since the GFC, fiscal policy began to have a contractionary effect on aggregate demand from 2012 (Figure 13). The pace of consolidation was motivated by a number of factors:

- The effect of fiscal policy on domestic output (the fiscal multiplier) was considered to be smaller in New Zealand than in some other countries, because monetary policy was not constrained by the zero lower bound of interest rates (interest rates never fell below 2.5% during this period). This meant that, all else equal, a credible and well-signaled fiscal contraction was likely to lead to lower interest rates than otherwise, via more accommodative monetary policy, and less pressure on the New Zealand dollar. More stimulatory monetary policy would help to stimulate aggregate demand and shift resources toward the export-facing sector, softening the impact of fiscal tightening on the economy.
- The planned fiscal adjustment was forecast to subtract from aggregate demand at a time when private sector and earthquake-related spending would be adding to it. Forecasts at the time showed capacity in the economy being gradually taken up over the coming year and for inflation to settle around the middle of the Reserve Bank's 1-3% target range.

<sup>18</sup> Includes spending and revenue initiatives. See Box 2 for a description of operating allowances.



**Figure 13 – Estimates of fiscal impulse<sup>19</sup>**



Source: New Zealand Treasury

After 2013, the economy recovered broadly as expected, partly owing to a strong increase in population growth (from net migration) and high terms of trade. By Budget 2014 the economy was growing steadily and growth rates of between 2 and 4 percent were forecast over the next four years. The output gap was estimated to be close to zero, and monetary policy had begun a tightening cycle. Forecasts of future tax revenue growth were revised up, and the Treasury was projecting a significant improvement in the fiscal position. In Budget 2014 the Government announced an increase in future Budget allowances, to be used for a mix of spending and revenue initiatives. Net debt was projected to fall to 20% of GDP in 2020, and the main constraint on fiscal policy was a concern not to add to pressure on monetary policy.

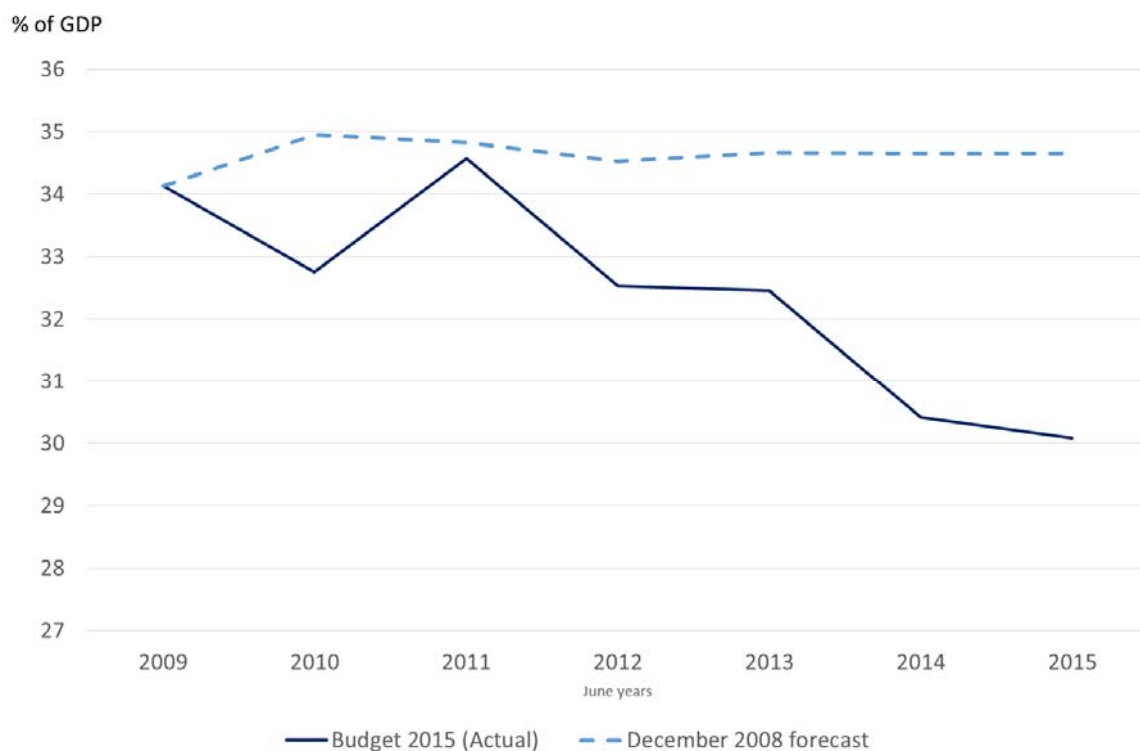
By the Budget in May 2015, the optimism from Budget 2014 had begun to dissipate and dairy prices had begun to fall. While the real economy was still forecast to grow at just below 3% on average, nominal GDP growth forecasts were revised down due to declining export prices and weaker than expected inflation. Monetary policy began to ease in June 2015. Falling dairy prices were expected to reduce farm incomes and consequently tax revenue growth was expected to slow. As a result, the Treasury forecast a small deficit in 2014/15 and a small surplus in 2015/16. However, there is significant uncertainty when forecasting the balance between two very large numbers, and the final year accounts for 2014/15 showed that a small surplus had been achieved. The structural balance was also estimated to be in a small surplus.

Overall, the return to surplus has been achieved largely through a reduction in expenses, and expenses-to-GDP are now much lower than was expected in 2008 (Figure 14). Structural expenses (excluding earthquake expenses) are estimated to have declined by 6 percentage points of GDP since 2011 (Figure 15). Direct efficiency savings and reprioritisation and programme savings since Budget

<sup>19</sup> See Box 1 for a description of the Fiscal Impulse Indicator.

2011 are estimated to have contributed around 0.5% of GDP each to reducing expenditures.<sup>20</sup> However, measured direct efficiency savings and reprioritisation almost certainly underestimate the contribution as many savings will have occurred indirectly within individual government departments in response to tight fiscal constraints and not be centrally reported on (for example, savings in rental costs resulting from moves to open plan offices).

**Figure 14 – Core Crown expenses<sup>21</sup>**



Source: New Zealand Treasury

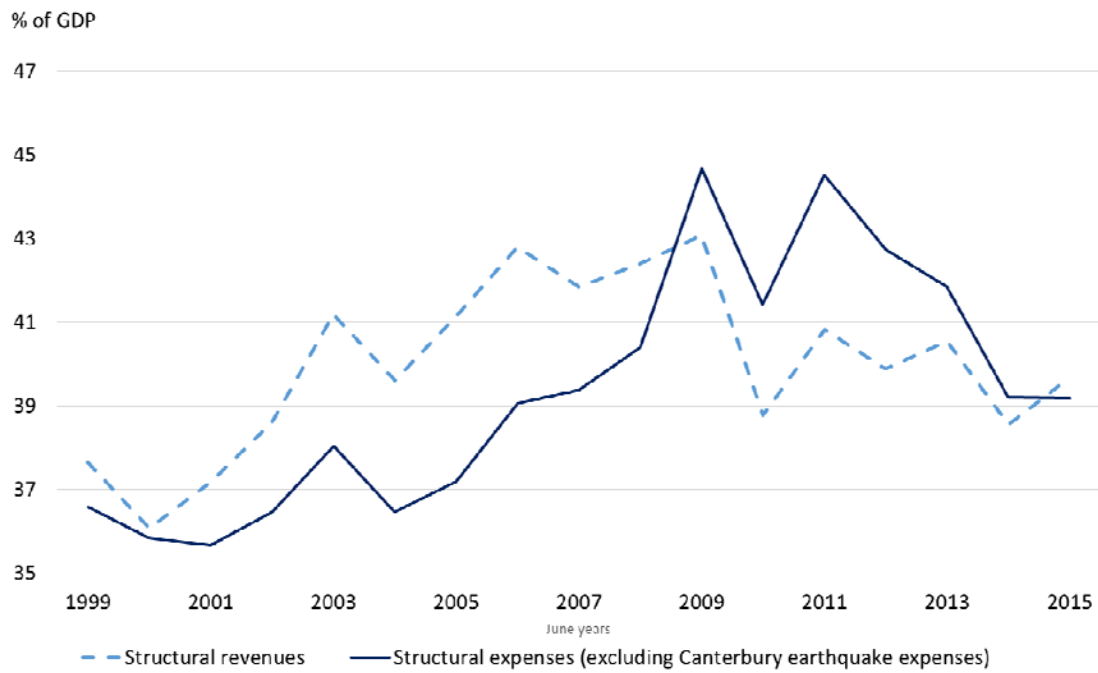
While the economic recovery was slower and more drawn out than initially forecast, a strong terms-of-trade helped nominal GDP growth rates remain relatively strong (Figure 16) and, in turn, meant revenue outturns were higher than they might otherwise have been. Overall, tax-to-GDP turned out weaker than had been expected in December 2008<sup>22</sup> (Figure 17), but there have been no large tax policy changes recently and structural revenues have fluctuated around a relatively constant trend since 2011 (Figure 15).

<sup>20</sup> There were additional efficiency savings in Budgets 2009 and 2010.

<sup>21</sup> The level of forecast for December 2008 has been scaled to match the Budget 2015 figures in 2009 to adjust for historical nominal GDP revisions.

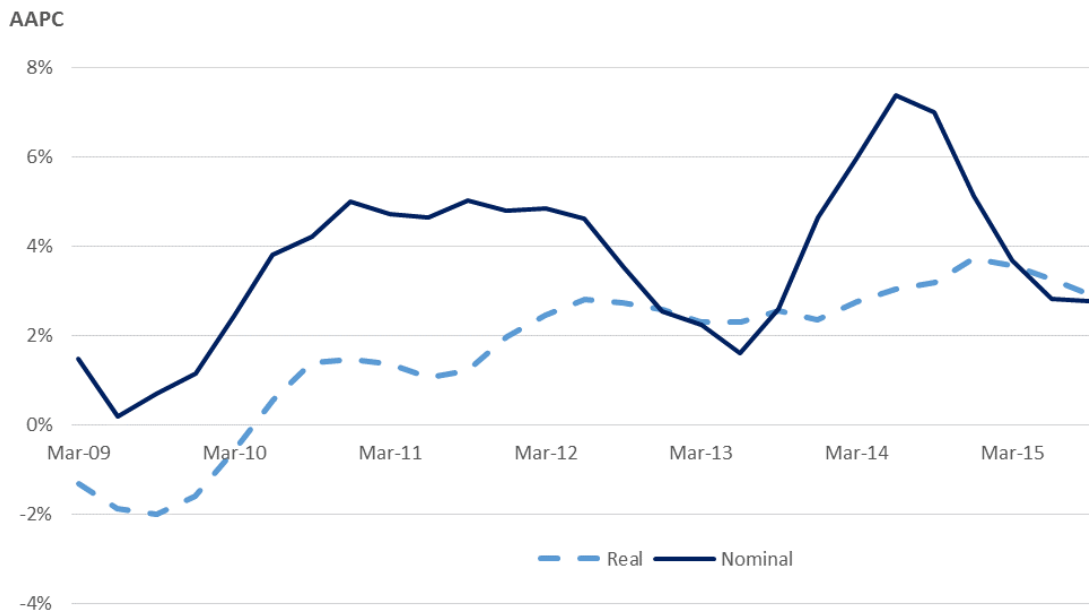
<sup>22</sup> Lower than expected tax revenues also meant that impaired tax debts were lower than forecast, contributing to savings in the core government services component in Figure 10 and Figure 11.

**Figure 15 – Structural revenue and expenses**



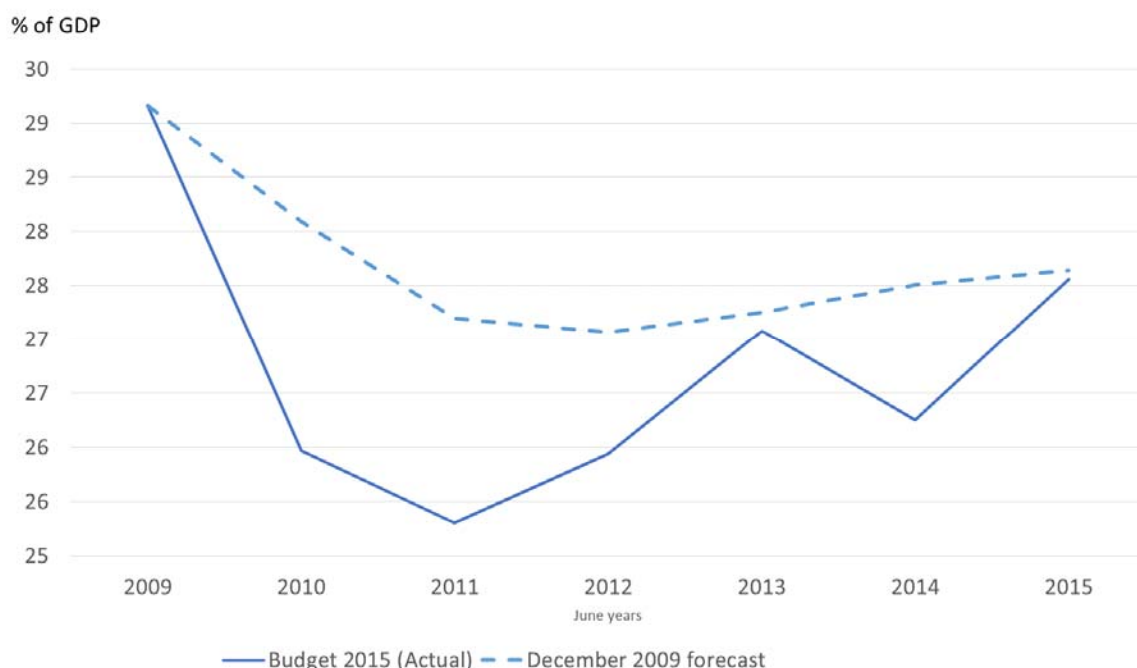
Source: New Zealand Treasury

**Figure 16 – GDP growth**



Source: Statistics New Zealand

**Figure 17 – Core Crown tax revenue<sup>23</sup>**



Source: New Zealand Treasury

The achievement of a surplus in 2014/15 was an important milestone in turning around the fiscal position, and the high profile surplus target provided a prominent focal point for recent Budgets. The next section discusses the role of the surplus target and other institutional factors in New Zealand in supporting the achievement of a surplus in 2014/15.

### **3. Institutional factors supporting fiscal consolidation**

#### **3.1 Fiscal policy framework and fiscal targets**

For more than two decades, fiscal policy has been conducted in New Zealand within a framework that emphasises transparency as a key to ensuring fiscal responsibility and sustainability. New Zealand's fiscal policy framework differs from many other countries in that principles are legislated for, rather than mandatory targets. The principles of responsible fiscal management are outlined in Part 2 of the Public Finance Act 1989 (PFA) and include reducing debt to prudent levels and, once those levels have been reached, running operating surpluses, managing fiscal risks facing the government, having regard to the interaction between fiscal policy and monetary policy, the impact on present and future generations, and ensuring that the Crown's resources are managed effectively and efficiently.

The PFA requires the publication of a Fiscal Strategy Report (FSR) which must be delivered alongside the Budget. In this report the government must outline its specific long-term fiscal objectives (10+ years) and short-term fiscal intentions (3-5 years), and the extent to which these objectives and intentions are consistent with the principles of responsible fiscal management.

<sup>23</sup> The level of forecast for December 2008 has been scaled to match the Budget 2015 figures in 2009 to adjust for historical nominal GDP revisions.

Governments have used a range of targets to communicate their strategy, typically an operating balance target, a long-term debt target and sometimes a target for operating expenses. The focus for the current Government has been to return to operating surplus by 2014/15, to reduce net core Crown debt to 20% of GDP by 2020, and to reduce core Crown expenses to below 30% of GDP. The aim of the fiscal strategy has been to rebuild buffers to help manage future shocks and to provide a positive offset to high external private sector debt.

The level and specification of the debt objective has changed through time, as circumstances changed. Prior to the GFC, the target was for gross debt of around 20% of GDP (equivalent to net debt around 10% of GDP)<sup>24</sup>. Following the crisis, the target was to keep net debt below 40% of GDP – this was subsequently lowered to below 30% of GDP – and to reduce net debt to 20% of GDP over the medium term. As the fiscal projections have improved, the goal has been to reduce net debt to around 20% of GDP by 2020, and then maintain net debt within a range of around 0-20% of GDP over the economic cycle.

Successive fiscal targets have typically had strong political buy-in, across changes of government. In part, the fact that the principles in the PFA allow governments to outline their own targets, rather than imposing a target on them, means that meeting the targets have often been seen as a sign of political credibility. This gives the Minister of Finance in particular a strong motivation to achieve the targets.

Political commitment to the target has been particularly strong in the case of the Government's target to return surplus in 2014/15. This may partly reflect the fact that the target was brought forward from 2015/16 to 2014/15 during the 2011 election campaign. Achievement of the target came to be seen by some as a sign of the Government's fiscal credibility. The target itself led to a number of benefits. When it was introduced in 2011, the headline operating deficit was 9% of GDP. In these circumstances, the target to return to operating surplus helped focus attention across the State sector on the need for fiscal consolidation, and this was assisted by the strong political commitment to the target. This helped focus attention on managing operating revenue and expenses and helped turn around a large fiscal deficit.

However, the specification of the target had a number of challenges:

- The target was specified in terms of the actual balance, rather than the structural balance. A target for the actual balance has the advantage of being more easily measured and less subject to real time uncertainty than a structural balance, and as such, it is more easily understood by the general public. However, a target for the actual balance creates a risk that it could lead to pro-cyclical fiscal policy, by encouraging spending reductions if the economy turns down. In this case the intent of the target was not to result in pro-cyclical fiscal policy, and this was to be achieved by introducing conditionality around the target, in that it was "subject to any significant shocks". However, in practice, it was unclear when this explicit "escape clause" would be applied, and it did not receive much attention.
- The target focused on a particular year – the 2014/15 fiscal year. This worked well when the target was a few years out, as it encouraged a medium-term approach to Budgets and fiscal policy. However, as the target date approached, it increasingly focused attention on the short-term.

---

<sup>24</sup> The current Government targets net core Crown debt rather than gross debt, which was the previous target. Net core Crown debt better reflects fiscal policy decisions (which can affect either gross debt or financial assets), and is not affected by operational policy decisions of the Government that lead to changes in both assets and liabilities.

- A focus on the operating balance had pros and cons. A benefit was that as it is the difference between total Crown operating revenues and expenses, it encouraged the Government to focus on all parts of the Crown. This led to greater focus and understanding around parts of the Crown outside of the narrow Budget sector, and helped to encourage a greater focus on better understanding and managing the entire Crown balance sheet. However, at the margin it created greater focus on operating flows relative to capital expenditure.

### **3.2 Fiscal management approach**

The fiscal management approach (FMA) constitutes a flexible set of rules applied to the day-to-day decisions of government to inform decision-making and assist them in achieving their fiscal strategy. The fiscal management approach is made up of two main parts:

- Fixed nominal baselines for most existing spending.
- Operating allowances to fund new initiatives and some cost increases.

New Zealand has had fixed nominal baselines since the early 1990s. Fixed nominal baselines means that the amount of funding an agency receives each year does not automatically increase to adjust for inflation. Instead agencies are expected to absorb price increases; in effect this acts as an annual efficiency dividend on government expenditure.

For the majority of expenditure, appropriations are ‘fixed’ and a specific policy decision is required to make adjustments<sup>25</sup>. Funding increases are sought through the Budget process, where increases have to be met from a limited pool of funding allocated for net new spending called the “operating allowances” and traded off against spending proposals in all other areas of government.

The operating allowance is the pool of new operating funding available at each Budget – in Budget 2016 this was set at \$1.6 billion a year (0.6% of GDP). The allowance is set in advance of the Budget in accordance with the Government’s fiscal strategy, and an allowance for future Budgets is included in the forecasts. The allowance is a net amount allocated for new policy initiatives, and in 2010 coverage of the operating allowances was expanded to cover cost increases in existing policy (for more on allowance framework see Box 2). In practice, the size of allowances have tended to be reviewed each Budget, to adjust the pace of fiscal consolidation in order to achieve the government’s fiscal targets.

The fiscal management approach outlined above implies that, in the first instance, agencies should manage the cost of wage settlements from within baselines. In practice, some sectors seek full or partial Budget funding for settlements, particularly where operational flexibility to manage wage costs is limited.

This approach means that the government applies a high level of scrutiny to new spending. In order to receive funding for cost pressures, the burden of proof rests on agencies to demonstrate that it will not be able to deliver services effectively within existing funding levels. The government must then trade off increasing spending on existing programmes against any new policies. To help make these trade-offs within tight fiscal constraints, recent Budgets have moved towards having groupings of Ministers making trade-offs between themselves (e.g. the “Social Sector Ministers” group).

---

<sup>25</sup> There are a small number of exclusions to reflect some demand-driven pressures and the automatic fiscal stabilisers. These include welfare benefits, superannuation and some education spending.

This system of fixed nominal baselines combined with a fixed nominal increase in spending gives the Government a high degree of control over most categories of spending. In the mid-2000s, some expense growth was due to increases in the cost of existing programmes which at the time were not “counted” against operating allowances, but this was changed in 2010 and since then all increases in the cost of existing programmes have been counted against the operating allowance, helping to give the Government a greater degree of control over total expense growth.

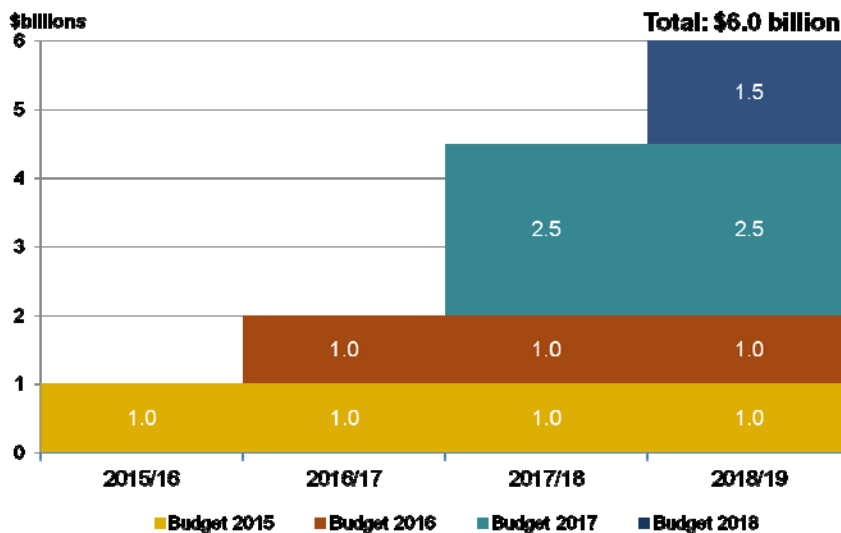
### Box 2: The operating allowance

The operating allowance forms a self imposed cap on expenditure growth (less any revenue changes). As baselines do not automatically adjust for inflation, all changes to expenses and revenue are funded from the operating allowance. The starting presumption is that all new expenditure counts. Some notable exceptions are:

- Changes in the cost of debt servicing, the unemployment benefit or tax revenue (but not tax rate) changes (to help avoid pro-cyclical fiscal policy).
- Impairments and revaluation and other changes to assets and liabilities (these items are highly volatile, and are often non-cash).
- Previously forecast growth in expenditure, most notably New Zealand Superannuation which is forecast to rise by over \$800m per annum by 2019.

As Figure 18 shows, the operating allowance for Budget 2015 was set at \$1 billion per year in perpetuity, which results in cumulative spending of \$4 billion over the forecast period (2015/16 to 2018/19). Each Budget a new operating allowance is available for allocation, meaning that by 2018/19 a total of \$6 billion a year of new funding will be allocated to baselines.

**Figure 18: Budget 2015 and future operating allowances**



Source: New Zealand Treasury

In addition to forming a cap on expenditure, the allowance approach is also useful for incentivising prioritisation. The decision making phase of the Budget process, which takes place from December to April, requires Ministers to discuss relative priorities with the aim of forming a package of high value initiatives that achieve their priorities, as set out in the Budget Policy Statement (usually released in December of the year prior to the Budget). It is preferable that all new spending proposals be considered through the Budget process to ensure consistent prioritisation.

### **3.3 State sector reform**

While the PFA and FMA were well entrenched on the public policy landscape, the relatively good fiscal backdrop (consistent surpluses and relatively high levels of allowances) leading into the GFC meant departments had grown accustomed to an absence of serious funding pressure, and in some cases relatively frequent funding increases.

The reduction in operating expenses has meant that each department had to manage its expenditure more closely than previously. This drive for 'better public services' was motivated by desire to move away from a culture where value-for-money is a secondary consideration, towards an environment where public servants are motivated to continuously innovate and improve. Each department was required to produce a four-year plan that crystallised the delivery of services within the fixed nominal baselines. Four year plans allowed departmental chief executives to show the impact they were having and the savings they were making, while reducing the need for constant centralised monitoring.

Initially the quality of forecasts was questionable, and they were accompanied by predictions of delivery failure. However, outputs in major programmes continued to be delivered as departments were able to find their own ways of delivering services more efficiently. Meanwhile, the production of four-year plans has improved considerably and the search for efficiencies has become the norm. Four-year plans have also helped move to a more medium-term approach to planning across the State sector, rather than a focus only on the next Budget.

The introduction of the investment approach<sup>26</sup> further focussed departments on outcomes rather than spending. The approach means using information and technology to better understand service requirements and what works, and adjusting services accordingly. Much of the focus is on early investment to achieve better long-term results for people and helping them to become more independent. This reduces the number of New Zealanders relying on social services and the overall costs for taxpayers.

The focus on outcomes is data and information intensive and requires departments to set clear, measurable goals. Measurement of outcomes and effectiveness needs to be improved to enable better evaluation of service delivery. Importantly, because the aim is for the government to purchase results rather than specific inputs, funding can be moved to the most effective services irrespective of whether they are provided by government or non-government agencies, or a combination of organisations. This outcomes focus is still in its early stages of implementation, and it is too early to assess how effective the approach has been<sup>27</sup>.

The introduction of four-year plans has shifted the onus onto departments to make the case for new funding, with an assumption that they need to show how they can deliver existing services within current baselines or to expose the trade-offs they face. This approach has generated significant indirect efficiency gains, to the extent that the majority of the fiscal consolidation has been achieved without significantly changing policy. Most of the major expenditure programmes put in place during the 2000s have been maintained, although some parameters have been adjusted.

---

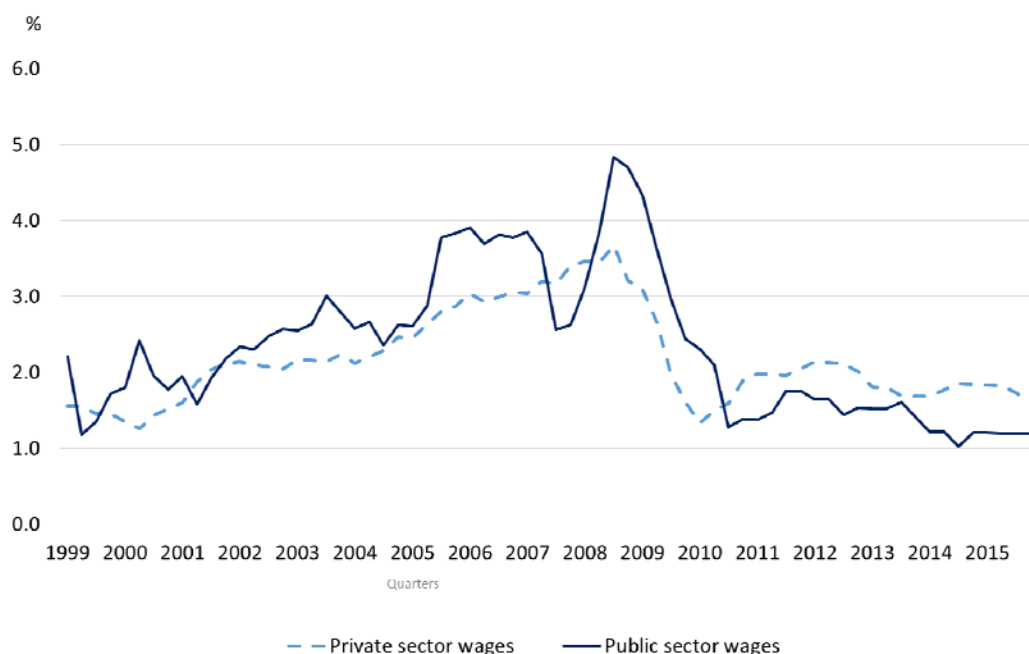
<sup>26</sup> The investment approach refers to the idea that spending a dollar today may provide a 'return' in delivering greater savings in the future.

<sup>27</sup> This fiscal liability model was introduced in Ministry for Social Development in 2011-12 and only referred to as the investment approach more recently. Wider adoption of this approach in areas like Justice and Children, Youth and Families show the increasing importance of the outcome focus, if significant savings are yet to be seen. Nevertheless the focus on customers and outcomes now being expanded elsewhere.



Other factors may have contributed to the ability for departments to find efficiency savings. It is possible that the large increases in funding many departments received during the mid-2000s may have made it easier to find efficiency savings. In addition, the sustained period of low inflation, combined with tight expenditure control, has contributed to a slowing in public sector wage growth. From typically growing faster than private sector wages prior to the GFC, public sector wages have grown at a significantly slower pace since then (Figure 19), which will have made it easier for departments to manage within baselines. This may partly reflect the weaker global labour market, particularly in the health sector.

**Figure 19 – Wage growth**

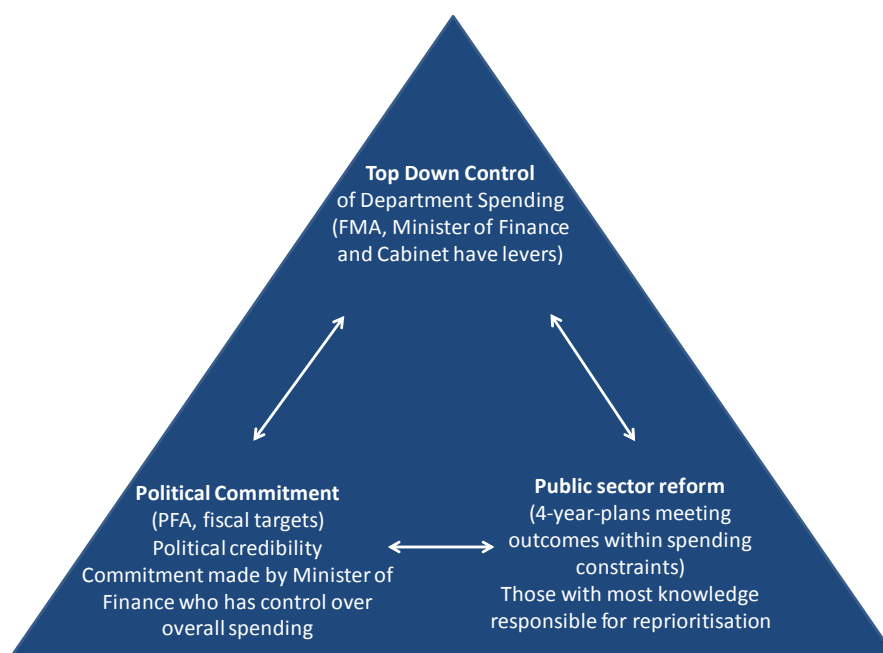


Source: Statistics New Zealand

### 3.4 Summary

The high-profile surplus target provided the motivation to achieve the consolidation, while the fiscal management approach with its effective top-down constraints on spending provided the tool to deliver on the target. The state sector reform shifted the onus on managing with limits to the agencies, who are best placed to figure out ways to deliver on results in their areas. These factors were mutually-reinforcing (Figure 20). Together, they allowed the fiscal consolidation to occur without major service delivery failure.

**Figure 20 – Complementary nature of Fiscal Institutions**



#### **4. Future challenges**

Looking back at the fiscal consolidation episode, the achievement of an operating surplus in 2014/15 is an important milestone. At the onset of the GFC projections were for a succession of operating deficits and net debt rising to almost 40% of GDP. That the latest forecasts show net debt peaking just above 25% of GDP and falling below 20% of GDP in the early 2020s is a notable achievement. Nevertheless, the return to surplus is only the first step on the journey of fiscal consolidation, and achieving the remaining steps will require addressing a number of challenges.

##### ***Reducing debt***

New Zealand’s experience through the crisis years shows the benefits of the significant fiscal buffers that were built up in the boom years prior to the GFC. With net debt at only 5% of GDP, there was space to allow the automatic fiscal stabilisers to operate and to provide support to the economy through the recession. Consolidation mostly took effect after the economy had begun to recover.

Although the operating balance has returned to surplus, net debt is still increasing as a share of GDP. The focus on returning to surplus has increased the degree of scrutiny over operating revenues and expenses. Delivering on the next target – to reduce net debt – will require a greater focus on managing capital expenditure.

Reducing net debt will also require operating surpluses to be sustained and increased, and risks to the economic outlook suggest this may be challenging. While the structural balance is currently estimated to be in a small surplus, it is unclear how much this is being boosted by the terms of trade, which has been at high levels over recent years. Estimates of the structural balance that adjust for the terms of trade show that the structural balance may still be in deficit. The terms-of-trade has fallen recently and current forecasts assume some rebound, which presents a key risk to the outlook.

### ***Fiscal targets***

The high profile surplus target was extremely effective at eliminating the fiscal deficit. It played an important role in decision making because it focused the attention of Ministers and departments. However, at the margin, because the target focused on a particular fiscal year it encouraged a focus on short-term decision making, particularly as the target date approached.

Following the achievement of the 2014/15 surplus target, the Government recently reviewed its fiscal targets. There has been some change to make the next fixed date target – to reduce net debt to around 20% of GDP by 2020 – more flexible (previously it was below 20% rather than around) to try to avoid undue focus on a particular year. Nevertheless, as 2020 approaches, there is a risk that it becomes challenging to allow net debt to fluctuate too far from this target, which risks too great a focus on short-term decision making and could lead to pro-cyclical fiscal adjustments if the economy were to weaken.

### ***Efficiency savings***

As explained above, much of the fiscal consolidation has been achieved through efficiency savings. This has now been occurring over a number of years, without causing major service delivery failure to date. However, as time goes by, many departments are likely to be getting nearer to the “efficiency frontier”, and the ability to continue to generate efficiency savings in the absence of significant changes to service delivery models is not clear. The ability to continue to find efficiency savings is likely to require ongoing changes to the way the state sector operates. While the investment approach may lead to longer-term savings, there can be costs of change in the short term. If the ability to continue finding efficiency savings is not sustainable, there may come a point where delivering the fiscal strategy requires more difficult decisions about spending programmes.

## **5. Conclusion**

New Zealand’s public finances recently reached an important milestone with a return to operating surpluses and an estimated structural surplus. The large deficits recorded post-GFC have been turned around through a focus on expenditure control – in particular, through tight top-down control over aggregate spending to encourage efficiency savings, without major cuts to most government programmes. New Zealand’s fiscal institutions – a high-profile surplus target, comprehensive top-down expenditure control, and public sector reforms – combined to make the goal to return to surplus in 2014/15 a reality. Nevertheless, it is likely to be challenging to continue this approach, as departments approach the “efficiency frontier”. This will make it challenging to maintain surpluses, and to begin the process of rebuilding the fiscal buffers that were run down following the GFC and Canterbury earthquakes.

## References:

- Bell, Matthew; Rodway, Paul (2013), "Tales of Three Budgets: Changes in Long-term Fiscal Projections through the GFC and Beyond", Treasury Working Paper 13/23  
<http://www.treasury.govt.nz/publications/research-policy/wp/2013/13-23/>
- Brook, Anne-Marie (2011) "Making fiscal policy more stabilising in the next upturn: Challenges and policy options", paper prepared for the Macroeconomic Policy Forum, June 2011  
<http://www.treasury.govt.nz/downloads/pdfs/mi-brook-paper.pdf>
- Buckle, Bob (Robert) A; Cruickshank, Amy (2013), "The Requirements for Long-Run Fiscal Sustainability", Treasury Working Paper 13/20 <http://www.treasury.govt.nz/publications/research-policy/wp/2013/13-20/>
- Janssen, J (2001), "New Zealand's Fiscal Policy Framework: Experience and Evolution", Treasury Working Paper 01/25 <http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-25/>
- Janssen, J (2015) "The New Zealand experience" Paper prepared for "Structural Reforms and Fiscal Consolidation: Trade-Offs or Complements?", a symposium held at the Federal Ministry of Finance, Berlin, 25 March 2015, <http://www.bundesfinanzministerium.de/Content/DE/Downloads/2015-07-14-Janssen.html>
- McCulloch, B. and Frances, J. (2001) "Financing New Zealand Superannuation", Treasury Working Paper 01/20 <http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-20/>
- Mears, T., Blick, G., Hampton, T., and Janssen, J. (2010) "Fiscal Institutions in New Zealand and the Question of a Spending Cap", Treasury Working Paper 10/07  
<http://www.treasury.govt.nz/publications/research-policy/wp/2010/10-07>
- New Zealand Government (1989), *Public Finance Act*,  
<http://www.legislation.govt.nz/act/public/1989/0044/latest/DLM160809.html>
- New Zealand Government (2008), "Fiscal Strategy Report",  
<http://www.treasury.govt.nz/budget/2008/fsr>
- New Zealand Government (2009), "Fiscal Strategy Report",  
<http://www.treasury.govt.nz/budget/2008/fsr>
- New Zealand Government (2015), Fiscal Strategy Report,  
<http://www.treasury.govt.nz/budget/2015/fsr>
- New Zealand Treasury (2008a), Budget Economic and Fiscal Update
- New Zealand Treasury (2008b), December Economic and Fiscal Update
- New Zealand Treasury (2009), Budget Economic and Fiscal Update
- New Zealand Treasury (2010), Budget Economic and Fiscal Update
- New Zealand Treasury (2011), Budget Economic and Fiscal Update
- New Zealand Treasury (2012), Budget Economic and Fiscal Update
- New Zealand Treasury (2013), Budget Economic and Fiscal Update

New Zealand Treasury (2013b), “Recapping New Zealand’s Recent Fiscal Policy”, Monthly Economic Indicators Special Topic 2, June 2013

New Zealand Treasury (2013c), “Affording Our Future – Statement on New Zealand’s Long-Term Fiscal Position” <http://www.treasury.govt.nz/government/longterm/fiscalposition/2013>

New Zealand Treasury (2014), Budget Economic and Fiscal Update

New Zealand Treasury (2015a), Budget Economic and Fiscal Update

New Zealand Treasury (2015b), Half Year Economic and Fiscal Update

An archive of previous economic and fiscal updates can be found at:

<http://www.treasury.govt.nz/budget/forecasts/archive>

Parker, M and D Steenkamp (2012), “The economic impact of the Canterbury earthquakes” RBNZ Bulletin Vol.75 <http://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Bulletins/2012/2012sep75-3parkersteenkamp.pdf>

Parkyn, O., 2010: “Estimating New Zealand’s Structural Budget Balance”; NZ Treasury Working Paper 10/08 <http://www.treasury.govt.nz/publications/research-policy/wp/2010/10-08>

Ter-Minassian, Teresa (2014), “External Review of Treasury’s Fiscal Policy Advice”, <http://www.treasury.govt.nz/publications/informationreleases/fiscalpolicyadvice/pdfs/tfpa-2908566.pdf>

White, Bruce (2013) “Macroeconomic Policy in New Zealand: From the Great Inflation to the Global Financial Crisis”, Treasury Working Paper 13/30 <http://www.treasury.govt.nz/publications/research-policy/wp/2013/13-30/20.htm>