



# Economic and Fiscal Forecasts December 2008

Hon Bill English, Minister of Finance

18 December 2008

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## Statement of Responsibility

The Public Finance Act 1989 does not require a half-year economic and fiscal update to be published this year because the *Pre-election Update* was published on 6 October 2008. Nevertheless, the Government has asked the Treasury to prepare updated forecasts to provide transparency of the fiscal outlook and to provide context for the Budget Policy Statement.

The Treasury has undertaken its standard processes in preparing the updated macroeconomic forecasts set out in this outlook, including consultation with businesses and government departments, and review by an independent panel.

The fiscal forecasts in this outlook are based on the fiscal forecasts contained in the *Pre-election Update*, adjusted for a number of significant events. These are set out in full on pages 49 and 50, but the key changes are:

- the new set of macroeconomic forecasts have been used to update taxation revenue and welfare benefit expenditure forecasts
- changes to personal taxation, KiwiSaver, research and development tax credits and the Fast Forward Fund announced by the government have been incorporated, and
- the domestic bond programme and resulting finance costs have been updated.

Given that this update was performed so soon after the *Pre-election Update*, and due to the limited time available since the general election this outlook does not include:

- the detailed forecast financial statements that are included in a full economic and fiscal update based on forecasts from all Crown reporting entities, and
- a full statement of specific fiscal risks. Instead the section on risks to the fiscal outlook focuses on forecasting risks. It is assumed any costs arising from future decisions made by the government will be met from within existing baselines and the operating and capital allowances provided in each Budget for new spending.

This outlook includes two scenarios, indicating the sensitivity of the main forecast to economic risks. This is particularly important at present, given heightened uncertainty about the way in which the international economy will develop over the next couple of years.

On the basis of the economic and fiscal information available to it at the time the outlook was finalised, the Treasury has used its best professional judgement in supplying the Minister of Finance with this updated economic and fiscal outlook.



John Whitehead  
Secretary to the Treasury

12 December 2008

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# Economic and Fiscal Forecasts

## Overview

### ***The world economic environment has changed...***

The world economy has changed rapidly. It is vastly different from that of recent years and much weaker than the outlook incorporated in the *Budget Update* forecasts seven months ago. The financial market upheaval this year represents one of the largest shocks to the world economy since World War II and the full impacts are still to work through.

The shock has affected the expectations of businesses, households and governments worldwide, and led to huge volatility in markets. For example, stock markets in New Zealand and the United States have fallen as much as 36% and 42% respectively this year, world oil prices have varied between nearly US\$150 and just over US\$40 per barrel in the past six months and spot world dairy prices have fallen 43% since their peak in November 2007.

Exactly how long disruptions in financial markets will continue and the length and depth of the impact on world growth is uncertain. Although not independent, this is complicated by the fact that the shock has hit at a time when a number of countries, including New Zealand, have imbalances such as large current account deficits which they have to reduce. Judgements around such factors therefore have significant impacts on the outlook for an economy. The main forecasts presented here represent the Treasury's view of the most likely path the New Zealand economy will take over the next several years. In addition, two alternatives are presented that fall within the range of possible paths for the economy.

### ***...resulting in a smaller New Zealand economy than previously forecast***

With the outlook for growth in New Zealand's trading partners being progressively revised down, the outlook for the New Zealand economy is weaker. The *December Update* predicts a smaller nominal economy than past forecasts. This means that forecast tax revenue is lower, leading to an increase in the size of fiscal deficits and large increases in debt.

**Table 1** – Forecast developments over 2008

	2008	2009	2010	2011	2012	2013
	Est./Actual	Forecast	Forecast	Forecast	Forecast	Forecast
<b>Nominal expenditure GDP (\$billion, March year)</b>						
Budget Update	178	184	190	199	209	-
Pre-election Update	178	183	189	197	208	218
<b>December Update</b>	<b>178</b>	<b>180</b>	<b>183</b>	<b>191</b>	<b>202</b>	<b>214</b>
<b>Real production GDP (AAPC, March year)</b>						
Budget Update	3.1	1.5	2.3	3.2	3.0	-
Pre-election Update	3.0	0.1	1.8	3.3	3.4	3.1
<b>December Update</b>	<b>3.2</b>	<b>0.3</b>	<b>0.8</b>	<b>2.9</b>	<b>3.9</b>	<b>3.8</b>
<b>Unemployment rate (% , March quarter)</b>						
Budget Update	3.5	3.7	4.4	4.5	4.3	-
Pre-election Update	3.7	4.4	5.1	5.1	4.8	4.6
<b>December Update</b>	<b>3.7</b>	<b>4.7</b>	<b>6.4</b>	<b>6.2</b>	<b>5.4</b>	<b>4.6</b>
<b>OBEGAL<sup>1</sup> (% GDP, June year)</b>						
Budget Update	2.9	0.7	0.5	0.2	0.1	-
Pre-election Update	3.1	0.0	-0.9	-1.2	-1.5	-1.5
<b>December Update</b>	<b>3.1</b>	<b>-0.3</b>	<b>-2.2</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-2.9</b>
<b>Gross debt<sup>2</sup> (% GDP, June year)</b>						
Budget Update	17.6	17.5	16.8	17.8	16.8	-
Pre-election Update	17.4	17.4	18.0	21.9	23.1	24.3
<b>December Update</b>	<b>17.5</b>	<b>19.2</b>	<b>21.0</b>	<b>26.0</b>	<b>29.4</b>	<b>33.1</b>
<b>Net debt<sup>3</sup> (% GDP, June year)</b>						
Budget Update	1.0	2.5	3.8	5.0	6.2	-
Pre-election Update	0.0	2.8	5.3	8.0	10.6	13.2
<b>December Update</b>	<b>0.0</b>	<b>3.1</b>	<b>7.2</b>	<b>12.2</b>	<b>16.5</b>	<b>20.7</b>

- Notes: 1 Operating balance before gains and losses.  
 2 Gross sovereign-issued debt excluding Reserve Bank Settlement Cash.  
 3 Gross debt after deducting financial assets.

***The December Update forecasts predict weaker GDP and higher unemployment...***

Weaker export and domestic demand mean firms will require less labour and unemployment will rise. In an uncertain trading environment, and with tight credit conditions, firms are likely to cut back on investment. Consumption growth will be weak as households face a more difficult labour market. Following real GDP growth of 0.3% in the March 2009 year, growth of 0.8% is expected over the 2010 March year, down from 1.8% in the *Pre-election Update*. Easing monetary policy sees official interest rates fall, while lower commodity prices and increased risk aversion result in the exchange rate falling further. As world growth prospects improve, real GDP growth is forecast to recover to around 3% in 2011 and just below 4% in 2012 and 2013.

***...resulting in lower tax revenue and higher benefit payments...***

Core Crown tax revenue to June 2013 is forecast to be a cumulative \$14.5 billion lower than the *Pre-election Update* as a result of lower nominal GDP and additional tax cuts. Forecast higher unemployment will increase benefit expenses, while debt servicing costs will also increase. These higher expenses will, however, be more than offset by savings from changes to KiwiSaver and research and development tax credit initiatives. This means that overall core Crown expenses are expected to be lower than in the *Pre-election Update*.

***...which flow through to higher operating deficits and debt levels***

Relative to the *Pre-election Update* the operating balance before gains and losses (OBEGAL) deficit is expected to be \$2.4 billion to \$3.5 billion larger over the 2010 to 2013 June years, and is forecast to be around 3% of GDP in the final three forecast years. The need to finance

larger deficits is expected to see gross debt rise more steeply than previously forecast and reach 33% of GDP by June 2013, while net debt reaches nearly 21% at the same time.

### ***Unusual levels of uncertainty suggest a wide range of possible outcomes***

The alternative economic forecasts are based on different assumptions about the impact of financial conditions on the economies of New Zealand's trading partners. This gives rise to significantly different fiscal outcomes. A deeper and more prolonged world slowdown, including a greater impact on developing countries such as China, would cause lower activity levels in New Zealand and a higher peak in unemployment. The level of nominal GDP forecast over the 2009 to 2013 March years would be a cumulative \$22.4 billion below that in the main forecast. As a consequence, tax revenue over the 2009 to 2013 June years would be an estimated \$9 billion lower, meaning gross debt would reach nearly 39% of GDP in 2013 and net debt would reach nearly 26% of GDP.

**Table 2 – Key December Update forecasts and scenarios**

	2008	2009	2010	2011	2012	2013
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
<b>Nominal expenditure GDP (\$billion, March year)</b>						
Upside scenario	178	180	184	195	207	219
<b>Main forecast</b>	<b>178</b>	<b>180</b>	<b>183</b>	<b>191</b>	<b>202</b>	<b>214</b>
Downside scenario	178	179	176	186	198	209
<b>Real production GDP (AAPC, March year)</b>						
Upside scenario	3.2	0.3	1.3	3.6	3.9	3.6
<b>Main forecast</b>	<b>3.2</b>	<b>0.3</b>	<b>0.8</b>	<b>2.9</b>	<b>3.9</b>	<b>3.8</b>
Downside scenario	3.2	-0.2	-0.3	2.3	4.5	4.2
<b>Unemployment rate (% , March quarter)</b>						
Upside scenario	3.7	4.7	5.7	5.3	4.6	4.1
<b>Main forecast</b>	<b>3.7</b>	<b>4.7</b>	<b>6.4</b>	<b>6.2</b>	<b>5.4</b>	<b>4.6</b>
Downside scenario	3.7	5.0	7.2	7.1	5.9	4.8
<b>OBEGAL (% GDP, June year)</b>						
Upside scenario	3.1	-0.3	-1.9	-1.9	-1.9	-1.8
<b>Main forecast</b>	<b>3.1</b>	<b>-0.3</b>	<b>-2.2</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-2.9</b>
Downside scenario	3.1	-0.6	-3.6	-4.5	-4.4	-4.1
<b>Gross debt (% GDP, June year)</b>						
Upside scenario	17.5	19.2	20.6	24.1	26.4	29.1
<b>Main forecast</b>	<b>17.5</b>	<b>19.2</b>	<b>21.0</b>	<b>26.0</b>	<b>29.4</b>	<b>33.1</b>
Downside scenario	17.5	19.5	22.7	29.4	34.0	38.6
<b>Net debt (% GDP, June year)</b>						
Upside scenario	0.0	3.1	6.9	10.5	13.7	16.9
<b>Main forecast</b>	<b>0.0</b>	<b>3.1</b>	<b>7.2</b>	<b>12.2</b>	<b>16.5</b>	<b>20.7</b>
Downside scenario	0.0	3.4	8.9	15.0	20.5	25.6

Under a more optimistic set of assumptions with a faster recovery in world growth, unemployment would be lower than the main forecast, nominal GDP \$14 billion higher over the forecast period, tax revenue an estimated \$6.4 billion higher and gross debt lower at 29% of GDP in 2013.

### ***In the absence of policy responses, projections show debt trending upwards***

Gross debt is projected to continue to trend upwards beyond the forecast period based on projections following on from the main forecast and alternative scenarios. By 2023 projections based on the main forecast are estimated to see gross debt reach 57% of GDP. These projections do not include any policy responses to avoid such outcomes. The forecasts and projections of debt are outside the range that the Government considers prudent and steps will be taken to ensure this does not occur. The 2009 *Fiscal Strategy Report* will set out further steps that the Government intends to take.

## Main Forecasts

### *The outlook for global growth continues to weaken...*

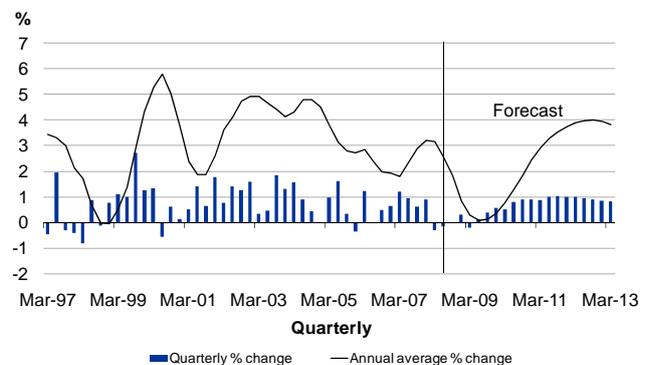
The financial crisis has deepened and the outlook for global growth has been revised down significantly since the *Pre-election Update* economic forecasts were finalised at the end of August. In September, governments in the United States and the United Kingdom were involved in supporting a number of financial institutions and in October the intensified crisis spread to other parts of the world, with financial institutions in Europe and other countries affected. The impact of the financial crisis on the real economy has become more apparent with the United Kingdom, Euro zone and Japan falling into recession in the middle of 2008 and the United States economy contracting in the third quarter. Although governments and central banks have reacted to the crisis with fiscal and monetary stimulus, the outlook for world economic growth has been revised down sharply since the *Pre-election Update*.

Weaker world conditions are adding to the difficulties New Zealand is experiencing as it shifts to growth that is driven by more sustainable fundamentals than has occurred over much of the past decade. During this time consumers in New Zealand and in many other developed countries have accumulated considerable levels of debt in an environment where credit was easily obtained at attractive rates and rising house prices provided a sense of security for many homeowners.

### *...resulting in a period of lower growth for the New Zealand economy*

New Zealand is forecast to experience a period of weak economic growth over the next couple of years as the economy is affected by low global growth and unwinds past imbalances. Real production GDP is forecast to grow by 0.3% in the March 2009 year. Growth is expected to remain weak over the 2010 March year at 0.8%, down from 1.8% in the *Pre-election Update*. Real GDP growth is expected to lift to around 3% in 2011 and just below 4% in 2012 and 2013, as growth in our trading partners recovers and monetary and fiscal policy responses help confidence to recover. As this occurs export and investment growth are expected to increase.

**Figure 1 – Real gross domestic product**



Sources: Statistics New Zealand, the Treasury

### *The slowdown affects firms, households and government*

The impact of the slowdown is expected to be felt by firms, households and the Government. Firms are expected to be affected by lower demand, both domestically and abroad. Their profits will fall and they are likely to respond by being much more cautious about making investments and employing people. Households facing a weaker labour market and greater constraints on borrowing are predicted to be less willing to finance expenditure from debt. Government is expected to be affected via lower tax revenue and increased expenses as higher unemployment drives up welfare costs and debt servicing costs increase.

**Table 3** – Economic forecasts<sup>1</sup>

<b>(Annual average % change, year ending 31 March)</b>	<b>2008 Actual</b>	<b>2009 Forecast</b>	<b>2010 Forecast</b>	<b>2011 Forecast</b>	<b>2012 Forecast</b>	<b>2013 Forecast</b>
Private consumption	3.3	0.0	0.4	0.2	1.1	1.9
Public consumption	4.1	3.7	4.5	4.0	3.2	2.7
<b>Total consumption</b>	<b>3.5</b>	<b>0.8</b>	<b>1.3</b>	<b>1.1</b>	<b>1.6</b>	<b>2.1</b>
Residential investment	3.8	-21.7	-10.9	6.9	9.9	14.3
Non-market investment	-12.2	2.1	7.9	4.4	3.6	3.2
Market investment	7.4	7.2	-15.0	3.2	6.9	5.8
<b>Total investment</b>	<b>4.3</b>	<b>-2.6</b>	<b>-11.0</b>	<b>6.6</b>	<b>8.3</b>	<b>7.5</b>
Stock change <sup>2</sup>	0.9	0.5	0.0	-0.4	-0.2	0.1
<b>Gross national expenditure</b>	<b>4.5</b>	<b>0.4</b>	<b>-1.8</b>	<b>1.9</b>	<b>2.9</b>	<b>3.5</b>
Exports	2.3	-1.0	-1.9	2.5	7.5	6.4
Imports	9.7	3.2	-8.7	-0.9	3.9	4.9
<b>GDP (expenditure measure)</b>	<b>2.4</b>	<b>-0.6</b>	<b>0.8</b>	<b>3.0</b>	<b>3.9</b>	<b>3.8</b>
<b>GDP (production measure)</b>	<b>3.2</b>	<b>0.3</b>	<b>0.8</b>	<b>2.9</b>	<b>3.9</b>	<b>3.8</b>
Real GDP per capita	2.1	-0.6	-0.2	2.0	2.9	2.9
Nominal GDP (expenditure basis)	7.5	1.5	1.3	4.7	5.8	5.6
GDP deflator	4.9	2.2	0.5	1.6	1.8	1.7
Employment <sup>3</sup>	0.8	0.4	-2.0	-1.0	1.6	3.0
Unemployment <sup>4</sup>	3.7	4.7	6.4	6.2	5.4	4.6
Wages <sup>5</sup>	4.2	5.4	4.2	3.7	3.0	2.9
CPI inflation <sup>6</sup>	3.4	3.4	2.4	1.9	1.9	1.9
Merchandise terms of trade <sup>7</sup>	9.4	2.7	-4.3	-0.7	0.3	-0.6
Current account balance						
- \$billion	-14.2	-17.0	-15.7	-13.1	-10.5	-10.5
- % of GDP	-8.0	-9.4	-8.6	-6.9	-5.2	-4.9
TWI <sup>8</sup>	71.9	56.5	54.4	54.2	53.7	53.0
90-day bank bill rate <sup>8</sup>	8.8	5.5	4.8	4.8	5.1	5.6
10-year bond rate <sup>8</sup>	6.3	5.9	5.7	5.8	6.0	6.0

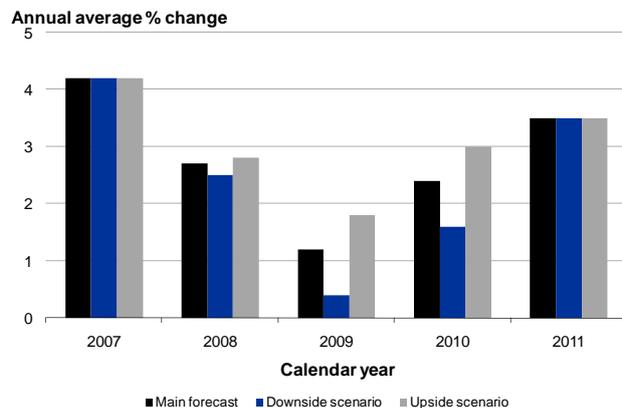
- Notes: 1 Forecast finalised 20 November 2008 incorporating data up until that date.  
2 Contribution to GDP growth.  
3 Household Labour Force Survey, full-time equivalent employment.  
4 Household Labour Force Survey, percentage of the labour force, March quarter, seasonally adjusted.  
5 Quarterly Employment Survey, average ordinary time hourly earnings.  
6 Annual percentage change.  
7 SNA basis, annual average percentage change.  
8 Average for the March quarter.

Sources: Statistics New Zealand, Reserve Bank of New Zealand, the Treasury

**Weaker trading partner growth...**

The key factor driving the weaker outlook for New Zealand is the change in forecast growth of our trading partners. Annual average growth in our top 20 trading partners is expected to fall to 1.2% over calendar year 2009, a substantial downward revision from the 2.8% growth assumed in the *Pre-election Update*, completed before the intensification of the crisis in September. The United States, Japanese and Euro economies are all expected to contract over 2009 with growth in Australia and non-Japan Asia also expected to be much weaker than in recent years. The slowdown in trading partner growth is also expected to be more prolonged with growth in the 2010 calendar year of 2.4% assumed, down from 3.6% in the *Pre-election Update*.

**Figure 2 – Trading partner growth**



Sources: Consensus Economics, the Treasury

Alternative assumptions regarding the growth profile of our trading partners, and the relative impact of weaker growth in developed economies on developing economies, including China, play crucial

roles in the different paths for the New Zealand economy presented as upside and downside scenarios later in this document. The box on the impacts of financial market distress on page 25 provides more details of the impact of banking-related problems on the international outlook. Further details on other assumptions underpinning the main forecasts are provided in the assumptions box on pages 48 and 49.

Financial market developments and their impact on the world's real economies will be transmitted to New Zealand by four main channels: the cost and availability of credit; lower demand for New Zealand's goods and services from abroad, including the impact weaker demand has on international commodity prices; impacts on the confidence of New Zealand businesses and consumers; and lower household wealth. Over and above the uncertainty associated with developments abroad, there is also uncertainty associated with the exact impact each of these channels will have on the New Zealand economy.

**...and tighter credit conditions...**

International credit conditions tightened significantly in September and October with the spreads between interbank rates and effective policy rates or government bill rates reaching peaks at that time. Although conditions have eased slightly as a result of central bank interventions, international credit markets remain tightly constrained and interest rate spreads remain wide. New Zealand institutions have been able to raise only limited amounts of funding offshore in the past three months and have made use of the Reserve Bank's term auction facility to access funding for terms of up to one year in exchange for mortgage-backed securities.

The availability of credit for local banks and large corporates has been scarce in the past three to four months, despite the slight easing in international credit markets and the initiatives of the Reserve Bank to increase liquidity. This has resulted in New Zealand banks applying stricter criteria for loans, thereby reducing the availability of credit for residential and business

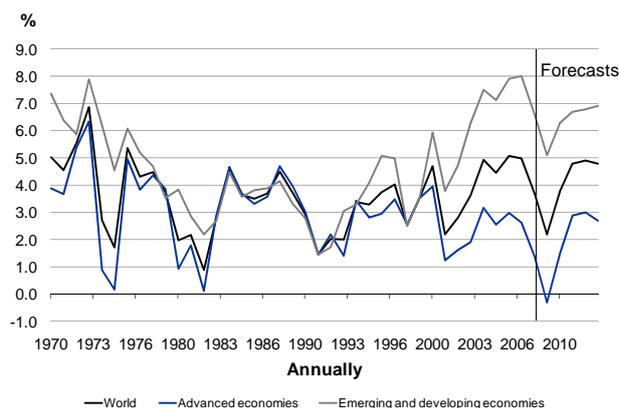
investment. While the international cost of borrowing remains high, large reductions in official interest rates in New Zealand have meant that the effective mortgage rate (the average rate paid by borrowers) declined for the first time in five years in October 2008 and should fall further as borrowers face lower rates when refixing existing loans.

### Impacts of Financial Market Distress

In their October 2008 economic outlook, the International Monetary Fund (IMF) showed that around half of the episodes of financial distress in advanced economies in the past three decades have led to economic slowdowns and such downturns tend to be longer and deeper than those which are not associated with financial stress. Downturns associated with banking-related stress tend to be longer (an average duration of around eight quarters) and the effect is felt sooner than in other cases.

Forecasting agencies have revised down their outlook for global growth as the financial crisis has developed. The IMF took the unusual step of revising their October outlook in the following month, reducing their forecasts for global growth in 2009 from 3.0% to 2.2% (down from 3.9% in their July outlook).

**Figure 3 – Global growth**



Source: International Monetary Fund

The latest IMF forecasts assume that developing economies' growth rates will fall below trend by a similar degree to advanced economies' in the current downturn, but because their trend is higher, developing countries' growth rates will remain higher than in previous cyclical downturns. However, advanced economies' growth rates will fall below their troughs of the past 40 years (Figure 3).

Although the IMF forecasts are not directly comparable with our trading partner growth forecasts from *Consensus*, our main forecast assumes that developing economies will continue to grow at a faster rate than advanced economies. Our downside scenario assumes developing economies' growth rates fall closer to their previous lows, thereby further reducing global growth. For example, in the main forecast, China's real GDP is expected to grow 7.5% over the 2009 calendar year. For the downside scenario this is reduced to 4%.

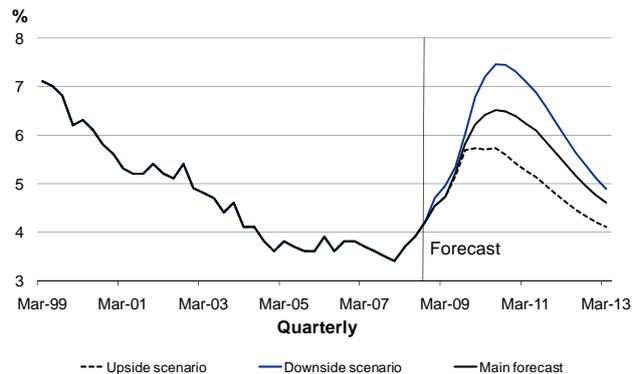
### **...will impact on businesses...**

New Zealand businesses are forecast to face lower demand from customers overseas and in New Zealand. Businesses dependent on international tourists are likely to be particularly affected by the more widespread, deeper and prolonged downturn in world growth. This results in a much weaker outlook for services exports than in the *Pre-election Update* with real services exports forecast to fall 7.7% in the March 2010 year. In the *Pre-election Update*, services exports were expected to increase over this period as global conditions began to pick up and the exchange rate fell.

**...resulting in lower employment**

Firms are expected to employ fewer people relative to the *Pre-election Update* forecasts owing to lower demand for their products. The unemployment rate is expected to increase to 6.5% mid-way through the 2010 calendar year, with the seasonally adjusted number of people unemployed expected to peak at 146,000 in June 2010, up 69,000 from December 2007 when unemployment was at a recent low. The forecast for unemployment has worsened as the world economic outlook has deteriorated and the housing market weakened. At the time of the *Budget Update* the unemployment rate was forecast to peak at 4.5%. While unemployment will almost certainly rise, the exact magnitude of this increase is uncertain, as illustrated in the scenarios presented later which show the peak in the unemployment rate varying between 5.7% and 7.5%. A combination of the expected weaker labour market and lower inflation pressures means that wage growth is weaker than previously forecast.

**Figure 4 – Unemployment rate**



Sources: Statistics New Zealand, the Treasury

**Some firms are facing falling international prices...**

Significant downward pressure on the price of commodities is occurring owing to weaker global demand, with the international price of commodities such as oil and dairy products expected to be substantially lower than predicted in the *Pre-election Update*. Such developments will have different impacts across firms depending on individual firms' input and output mixes. As noted above, one way that firms will look to manage costs is through staffing levels. Nevertheless, when taken together with lower sales volumes, firm revenues are expected to fall more rapidly than costs and hence profits, as proxied by operating surplus, are expected to be lower than in the *Pre-election Update*.

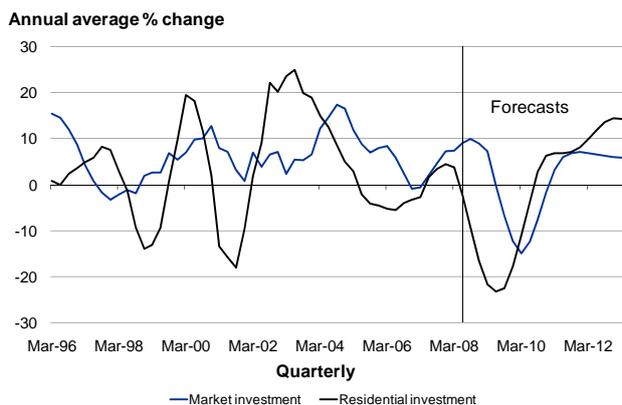
**...and lower profitability is expected to flow through to reduced corporate tax...**

Lower firm profitability results in less corporate tax revenue accruing to government, although the ability of firms to use past losses to offset profits earned in future periods means that the profiles of profits and corporate tax revenue are not always aligned. Total corporate tax revenue over the 2009 to 2013 June years is forecast to be 1.6% or \$800 million lower than forecast in the *Pre-election Update*. Lower employment levels and lower nominal wage increases also mean that the amount of personal income tax revenue collected through the PAYE system is expected to be significantly lower than previously forecast. Total source deductions (primarily PAYE) revenue over the 2009 to 2013 June years is forecast to be 2.4% or \$2.8 billion lower than forecast in the *Pre-election Update*.

**...and significant cut-backs in investment**

Firms are expected to be more cautious about undertaking investment or rapid expansion plans given forecasts of lower profitability and a very uncertain trading environment. Coupled with financial conditions making funding more difficult to obtain, this caution is expected to mean much larger falls in market investment than were predicted in the *Pre-election Update*. Real market investment is now expected to decline 15% in the year to March 2010 compared to a fall of around 3% in the *Pre-election Update*.

**Figure 5 – Investment**



Sources: Statistics New Zealand, the Treasury

**Government spending will provide some support to demand**

Spending by government will mitigate some of the weakness in domestic demand with real public consumption growth of around 4% per annum forecast over the next several years, prior to easing to around 3% in the 2012 and 2013 March years. Increased capital spending is also forecast to result in the rate of real non-market investment growth increasing to around 8% in the March 2010 year, when residential and market investment growth are both highly negative. In addition, ongoing tax cuts, including those coming into effect on 1 April 2009, will help support household disposable incomes and contribute to the fiscal stimulus over the 2009 and 2010 June years being forecast to total around 5% of GDP.<sup>2</sup> This is at the more expansionary end of what is being carried out internationally.

**Households benefit from tax cuts, lower petrol prices and interest rates...**

Since the *Pre-election Update* forecasts were produced, there have been several beneficial developments for households. Petrol prices have eased from around \$2.19 per litre in July to \$1.40 a litre in early December. Significant falls in mortgage interest rates are perhaps even more significant, meaning that households with mortgages will no longer face the prospect of interest rate hikes when they come to refix their loans, but will actually be able to choose a lower rate. In addition, households will benefit from further changes to tax rates and thresholds being introduced from 1 April 2009.

**...but consumption growth will be weak given rising unemployment and falling wealth levels...**

However, falling petrol prices and interest rates are a reflection of the weakness in world economies that currently exists. With unemployment rising, house prices falling and household debt at high levels, New Zealand households are likely to face a prolonged period of consolidation which will necessitate significantly weaker levels of consumption growth. Private consumption growth is therefore forecast to be weaker than in the *Pre-election Update*, until

<sup>2</sup> Estimates of the Treasury's fiscal impulse indicator are included in the additional information associated with the updated forecasts available at <http://www.treasury.govt.nz/budget/forecasts/eff2008>.

the final year of the forecast period. Forecast annual average rates of private consumption growth in the 0% to 0.4% range over the 2009 to 2011 March years imply falling levels of consumption on a per capita basis. The exact manner in which consumers behave after a period of considerable debt build-up is another area of uncertainty, with greater adjustment on the part of households a possibility.

**...and residential investment will fall further...**

Current weakness in the housing market and residential investment is forecast to persist as households remain nervous about the fortunes of the housing market and finance for housing purchases is harder to come by as banks require larger deposits. In addition, the failure of a number of lenders to property developers means this channel of finance is much reduced. With fewer new houses and apartments being built, residential investment is expected to contract by nearly 22% in the March 2009 year, followed by a further 11% contraction in 2010. After surging over recent years, employment in residential construction related industries is likely to drop significantly.

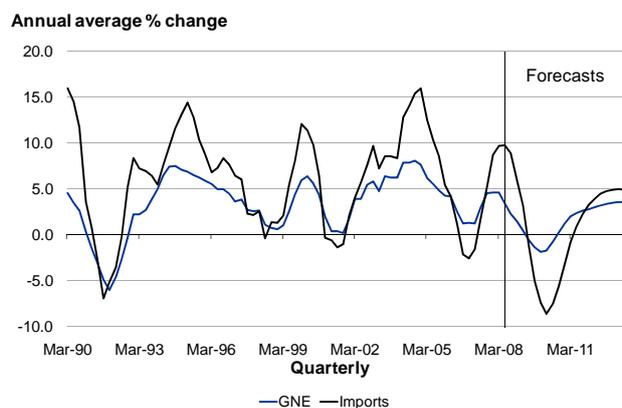
**...with less GST flowing to government**

Most GST revenue is generated from transactions associated with private consumption and residential investment. Total GST revenue over the 2009 to 2013 June years is forecast to be 2.2% or \$1.3 billion lower than forecast in the *Pre-election Update* as a result of the lower real private consumption and residential investment forecasts, compounded by lower prices.

**Imports fall as demand weakens**

Strong domestic demand growth, with the exception of a period over early 2006, has seen strong growth in import volumes. Import volumes are forecast to fall in the March 2010 and 2011 years given much weaker levels of domestic demand and a lower exchange rate. This is particularly so in the 2010 March year when market investment is expected to experience a large decline. The decline in import volumes is much larger than was forecast in the *Pre-election Update* given the weaker state of domestic demand.

**Figure 6 – Real imports and domestic demand**



Sources: Statistics New Zealand, the Treasury

**A lower exchange rate...**

The exchange rate has weakened significantly during 2008, with the trade weighted index averaging just under 73 in July and falling to an average of just over 57 in November. The exchange rate is expected to depreciate further over the forecast period to around 53 by the start of 2013. While there is extreme uncertainty with regard to movements in the exchange rate, and the exact path is likely to exhibit greater volatility than forecast, the weaker exchange rate acts to make imported goods and services more expensive and contributes to a shift away from imported goods and services to domestic production.

**...results from falling commodity prices and heightened risk aversion**

Terms of trade developments are an important factor behind the assumption that the exchange rate will be lower than that assumed in the *Pre-election Update* over the entire forecast period. Heightened risk aversion has also seen investors move away from currencies such as the New Zealand dollar. A weaker growth outlook for the world's economies has already seen the prices of internationally traded commodities experience large declines from the historical highs that existed in 2007. World dairy prices are expected to fall further and more rapidly than was predicted in the *Pre-election Update*, to be 24% lower by the middle of next year. Oil price falls have been even more dramatic, but overall the total terms of trade (including both goods and services) is expected to be lower than previously forecast. The difference peaks next year when the terms of trade is expected to be around 4% lower than was forecast in the *Pre-election Update*, leading to lower incomes for exporters.

**The current account deficit is likely to widen in the short term**

The annual current account deficit is predicted to peak at 9.4% in early 2009 compared with an 8.1% peak in the *Pre-election Update*. This is the result of the spike in oil prices early in the September quarter, the falling exchange rate pushing up import prices and weak export growth, including tourism, forecast to contribute to increases in the annual goods and services deficits. The investment income deficit also remains large.

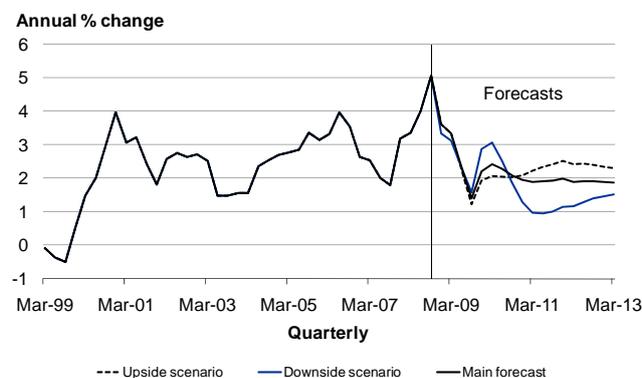
**Growth will recover despite considerable uncertainty surrounding its speed and timing**

Growth is expected to pick up eventually, despite the growth prospects for the New Zealand economy being poor over the next 18 months or so, with weak growth expected in the March 2009 and 2010 years. Some of the underlying drivers of this recovery are already beginning to be put in place. These factors include the depreciation of the exchange rate promoting the competitiveness of New Zealand's exporters and falls in official interest rates in New Zealand and abroad, with further cuts likely in 2009. Large fiscal packages have been implemented in some countries, aimed at shoring up global financial markets and, though it may take some time, confidence is expected to improve, and financial markets will begin to function more effectively, with more appropriate awareness of risks involved.

**Inflation has peaked and will ease considerably...**

Factors such as rising petrol and food prices and continuing construction cost inflation helped push annual inflation to 5.1% in the September quarter of 2008. Petrol prices have fallen considerably in the December quarter and food price inflation is likely to ease as supply-related factors subside and falls in international dairy prices flow through to consumer prices. Quarterly consumer price index (CPI) inflation is forecast to be negative in the December quarter. Annual inflation is expected to retreat to 3.6% in December 2008, before falling below 1.5% in September 2009, as lower demand in the economy reduces non-tradables inflation.

**Figure 7 – CPI inflation**



Sources: Statistics New Zealand, the Treasury

Tradables inflation is forecast to remain elevated in the near term as the lower exchange rate makes imported goods more expensive, but weakness in global demand should flow through to significantly lower tradables inflation as 2009 progresses. Over the forecast period as a whole, inflation is expected to be significantly lower than forecast in the *Pre-election Update*.

***...allowing further cuts in interest rates***

As growth in the economy remains weak and the outlook for inflation declines, the Reserve Bank is expected to continue to ease monetary policy. Ninety-day interest rates are expected to fall to an average of 4.75% in the second half of calendar year 2009. The 150 basis point cut in the official cash rate on 4 December may hasten slightly the fall in interest rates in the near term. Exports are expected to recover as global growth shows signs of improvement over the 2010 calendar year. The low exchange rate will also support exports. With relatively low interest rates and improved availability of credit as financial conditions improve, firms are expected to increase investment spending and employment.

***Imbalances will unwind and the current account deficit begin to narrow in 2009***

Households are expected to show modest increases in real private consumption over the final two forecast years, although they are likely to remain reticent about accumulating debt too rapidly. With the composition of growth weighted more towards exports and away from consumption, growth will be more balanced and this is forecast to be reflected in the current account deficit falling to just below 5% of GDP by the end of the forecast period and the rate of dis-saving by households reducing. A risk to this outlook would arise if exports of New Zealand's agricultural products were to be hampered at any stage by drought conditions. This would be particularly so if severe drought conditions were to occur over the 2008/09 summer in areas that were also affected in the 2007/08 drought. A further risk to this adjustment would arise if overseas lenders were unwilling to fully support the New Zealand Government's bond programme given the current scale of global sovereign borrowing. A faster and harsher unwinding of imbalances would be possible.

***Lower nominal GDP...***

Weaker levels of real activity combined with lower rates of price inflation, including lower consumer price inflation and lower terms of trade, result in the level of nominal GDP being forecast to be a cumulative \$24 billion lower than predicted in the *Pre-election Update* over the five March years to 2013. On a March year annual basis, the difference peaks at just over \$6 billion in 2011.

***...leads to a deterioration in the fiscal position...***

The weaker economic outlook is expected to result in a deterioration in the fiscal aggregates. Table 4 provides a breakdown of the key drivers in the annual operating performance expected over the forecast period in comparison to the *Pre-election Update* and *Budget Update*.

In summary, changes since the *Pre-election Update* are driven largely by economic conditions, with reductions in revenue from tax policy changes largely offset by reductions in KiwiSaver and research and development tax credit expenses.

**Table 4** – OBEGAL movements from *Budget Update* to *Pre-election Update* and to *December Update*

Year ending 30 June	2009	2010	2011	2012	2013
\$million	Forecast	Forecast	Forecast	Forecast	Forecast
<b>OBEGAL</b>					
<b>Budget Update</b>	<b>1,318</b>	<b>1,004</b>	<b>493</b>	<b>154</b>	
<i>Economic-driven changes</i>					
Tax revenue	(465)	(813)	(1,051)	(819)	
Benefit expenses	(358)	(629)	(678)	(543)	
Total economic-driven changes	(823)	(1,442)	(1,729)	(1,362)	
<i>Policy changes</i>					
Education expense changes	(239)	(111)	(208)	(254)	
KiwiSaver	(71)	(105)	(197)	(280)	
Treaty settlements	25	(440)	(130)	(130)	
Total policy changes	(285)	(656)	(535)	(664)	
<i>Net finance costs</i>	(435)	(284)	(390)	(675)	
<i>Other changes</i>	161	(368)	(320)	(545)	
<b>Total OBEGAL change from Budget Update</b>	<b>(1,382)</b>	<b>(2,750)</b>	<b>(2,974)</b>	<b>(3,246)</b>	
<b>Pre-election Update</b>	<b>(64)</b>	<b>(1,746)</b>	<b>(2,481)</b>	<b>(3,092)</b>	<b>(3,374)</b>
<i>Economic-driven changes</i>					
Tax revenue	(404)	(2,002)	(2,942)	(2,675)	(2,230)
Benefit expenses	(57)	(177)	(328)	(318)	(263)
Total economic-driven changes	(461)	(2,179)	(3,270)	(2,993)	(2,493)
<i>Policy changes</i>					
Tax revenue	(254)	(1,058)	(1,028)	(915)	(975)
KiwiSaver and R&D tax credit	128	826	985	1,091	1,152
Total policy changes	(126)	(232)	(43)	176	177
<i>Net finance costs</i>	(26)	(3)	(164)	(346)	(585)
<i>Other changes</i>	127	50	(50)	(50)	(50)
<b>Total OBEGAL change from Pre-election Update</b>	<b>(486)</b>	<b>(2,364)</b>	<b>(3,527)</b>	<b>(3,213)</b>	<b>(2,951)</b>
<b>December Update</b>	<b>(550)</b>	<b>(4,110)</b>	<b>(6,008)</b>	<b>(6,305)</b>	<b>(6,325)</b>

**...as a result of lower tax revenue**

Relative to the *Pre-election Update* the total amount of core Crown tax revenue forecast over the 2009 to 2013 June years has been revised down by \$14.5 billion owing to a combination of forecast and policy changes. All of the components of tax revenue are now predicted to be lower than previously forecast (Table 5).

Weaker demand is expected to lead to lower profits for New Zealand businesses. With the outlook for investment funds also having deteriorated since the *Pre-election Update*, forecasts of company tax and other persons tax have been reduced. The expected fall in employment, combined with slower wage growth than was envisaged in the *Pre-election Update*, results in forecasts of PAYE being reduced. Slower economic growth leads to further interest rate cuts, which has negative implications for the forecasts of resident withholding tax (RWT) on interest. A weaker outlook for private consumption and residential investment results in a reduction to forecast GST.

**Table 5** – Nominal GDP and Core Crown tax revenue forecasts

Year ending 30 June \$billion	2008 Est./actual	2009 Forecast	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast
<b>Nominal GDP</b>						
<b>Budget Update</b>	180.1	185.5	192.1	201.8	211.8	-
Forecast changes	-0.1	-1.1	-1.4	-1.9	-1.6	-
<b>Pre-election Update</b>	180.1	184.4	190.7	199.9	210.2	220.6
Forecast changes	-1.0	-3.3	-6.2	-6.0	-4.8	-4.1
<b>December Update</b>	179.0	181.1	184.5	193.9	205.4	216.5
<b>Core Crown tax revenue</b>						
<b>Budget Update</b>	56.7	56.5	58.2	60.3	62.7	-
Forecast changes	0.1	-0.5	-0.8	-1.1	-0.8	-
<b>Pre-election Update</b>	56.7	56.1	57.4	59.3	61.9	65.1
Forecast changes	-	-0.4	-1.6	-2.5	-2.3	-1.9
Policy changes	-	-0.3	-1.1	-1.0	-0.9	-1.0
<b>December Update</b>	56.7	55.4	54.4	55.3	58.3	61.9
<b>December Update composition:</b>						
Source deductions	23.4	22.8	22.2	22.7	23.8	25.5
Corporate tax	10.4	9.1	9.0	9.7	10.6	11.3
GST	11.1	11.7	11.8	12.1	12.8	13.4
Other taxes	11.8	11.8	11.3	10.7	11.1	11.6

Note: Changes calculated from unrounded values.

### **...and higher benefit costs**

Benefit costs in the *December Update* are forecast to be on average around \$250 million per annum higher compared to the *Pre-election Update*. There are two main factors which have opposite effects influencing benefit costs. Benefit costs increase owing to an expected increase in the number of beneficiaries as unemployment rises. Offsetting this is a weaker forecast for inflation which results in the forecast indexation adjustment to benefits being lower than expected at the *Pre-election Update*.

### **Debt servicing costs also rise...**

With slower growth in tax revenue and higher benefit expenses forecast compared to the *Pre-election Update* the Government's debt outlook is expected to rise along with its associated financing costs. The full impact on finance costs from the expected higher debt position is somewhat offset by the expected reduction in interest rates compared to the *Pre-election Update*.

### **...while policy decisions are broadly neutral to the fiscal outlook**

The fiscal forecasts incorporate changes to the personal tax rates and thresholds being introduced on 1 April 2009. This change to the tax system reduces forecast tax revenue by around \$1 billion per annum from the June 2010 year, once additional tax arising from

increased demand is included. The forecasts also include savings from the removal of research and development tax credits for business and changes to the KiwiSaver scheme, which broadly offset the costs of the tax changes.

As in previous *Economic and Fiscal Updates*, the forecasts include allowances for new operating initiatives for future Budgets. The forecasts assume these allowances are unchanged since the *Pre-election Update*. The Budget 2009 allowance is set at \$1.75 billion, and grows by 2% for each Budget as shown in Figure 8.

The fiscal forecasts assume that spending and revenue pressures can be managed within these funding allowances.

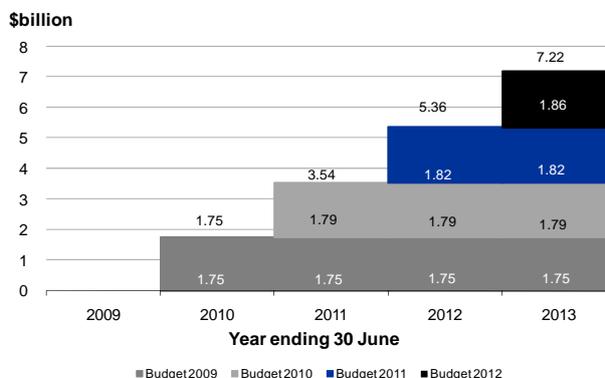
**A sustained period of operating deficits is forecast...**

The operating balance is forecast to be in deficit over the forecast period. The deficits peak in the June 2009 year at \$4.3 billion, primarily owing to losses on financial instruments resulting from the recent financial market turmoil.

Beyond the June 2009 year the operating balance recovers slightly as the rate of return on financial instruments is assumed to return to long-term benchmark rates from 31 October 2008 and as a result income increases.

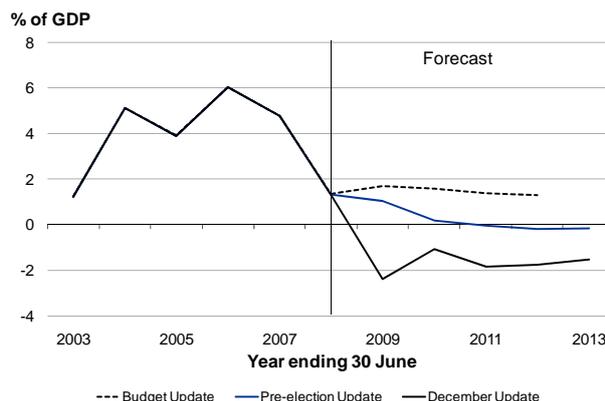
The OBEGAL, which represents the operating balances before gains and losses, is also expected to remain in a deficit position over the forecast period, peaking at around \$6.3 billion in the June 2013 year. This compares to the *Pre-election Update* when the OBEGAL deficit was forecast to be around \$1.7 billion to \$3.4 billion from the June 2010 year (refer Table 4).

**Figure 8** – Amounts of forecast new operating initiatives



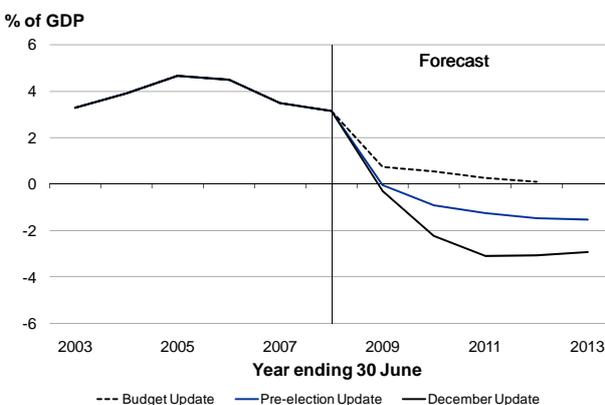
Source: The Treasury

**Figure 9** – Operating balance



Source: The Treasury

**Figure 10** – Operating balance before gains and losses



Source: The Treasury

*...with increases in residual cash deficits...*

The decline in the OBEGAL since the *Pre-election Update* is broadly mirrored in core Crown residual cash. In addition, increases in capital commitments, primarily owing to increases in forecasts of future new capital spending and contributions to the New Zealand Superannuation (NZS) Fund, further weaken core Crown residual cash.

**Table 6** – Reconciliation of core Crown residual cash

\$million	Year ending 30 June					
	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast
Core Crown revenue	61,819	60,806	59,783	61,212	64,574	68,835
Core Crown expenses	(56,997)	(62,741)	(65,428)	(68,524)	(71,953)	(76,158)
Core Crown gains/(losses) and other items	(930)	(3,010)	1,619	1,869	2,123	2,398
Net surpluses/(deficits) of SOEs and CEs	(1,507)	616	2,036	1,845	1,647	1,592
<b>Operating balance</b>	<b>2,385</b>	<b>(4,329)</b>	<b>(1,990)</b>	<b>(3,598)</b>	<b>(3,609)</b>	<b>(3,333)</b>
Net total Crown (gains)/losses and other items	3,252	3,779	(2,120)	(2,410)	(2,696)	(2,992)
<b>Operating balance before gains and losses (OBEGAL)</b>	<b>5,637</b>	<b>(550)</b>	<b>(4,110)</b>	<b>(6,008)</b>	<b>(6,305)</b>	<b>(6,325)</b>
NZS Fund net revenue after tax	(51)	(262)	81	105	130	150
<b>OBEGAL (excluding NZS Fund retained revenue)</b>	<b>5,586</b>	<b>(812)</b>	<b>(4,029)</b>	<b>(5,903)</b>	<b>(6,175)</b>	<b>(6,175)</b>
Net retained surpluses of SOEs and CEs	(815)	(1,385)	(1,535)	(1,304)	(1,074)	(998)
Non-cash items and working capital movements	2,521	1,859	2,913	2,161	2,118	1,789
<b>Net core Crown cash flow from operations</b>	<b>7,292</b>	<b>(338)</b>	<b>(2,651)</b>	<b>(5,046)</b>	<b>(5,131)</b>	<b>(5,384)</b>
Contribution to NZS Fund	(2,104)	(2,242)	(2,231)	(2,258)	(2,299)	(2,398)
<b>Net core Crown cash flow from operations after contributions to NZS Fund</b>	<b>5,188</b>	<b>(2,580)</b>	<b>(4,882)</b>	<b>(7,304)</b>	<b>(7,430)</b>	<b>(7,782)</b>
Purchase of physical assets	(1,433)	(1,516)	(1,729)	(1,397)	(1,251)	(1,306)
Advances and capital injections	(1,698)	(2,353)	(875)	(1,009)	(790)	(666)
Forecast for future new capital spending	-	(184)	(648)	(1,158)	(1,450)	(1,630)
<b>Core Crown residual cash</b>	<b>2,057</b>	<b>(6,633)</b>	<b>(8,134)</b>	<b>(10,868)</b>	<b>(10,921)</b>	<b>(11,384)</b>

The forecasts include allowances for new capital initiatives for future Budgets. As part of Budget 2009 it is assumed \$1.45 billion will be allocated to new capital over the next four years, which is an increase of \$550 million compared to the *Pre-election Update*.

**Table 7** – Forecast future new capital allowances

Year ending 30 June	2009	2010	2011	2012	2013	Remaining years	Five-year total
<b>\$million</b>							
Budget 2009	20	630	450	350	-	-	1,450
Budget 2010	-	20	630	450	350	-	1,450
Budget 2011	-	-	20	630	450	350	1,450
Budget 2012	-	-	-	20	630	800	1,450
<b>Total</b>	<b>20</b>	<b>650</b>	<b>1,100</b>	<b>1,450</b>	<b>1,430</b>	<b>1,150</b>	<b>5,800</b>

In total, over the five year forecast period, there is a core Crown residual cash shortfall of around \$47.9 billion forecast, compared to \$31.9 billion in the *Pre-election Update*.

The expected cash shortfall is forecast to be met by additional borrowings of around \$39 billion, with the remainder funded from the run-down of New Zealand Debt Management Office (NZDMO) financial assets.

**Table 8** – Residual cash movements from *Budget Update* to *Pre-election Update* and to *December Update*

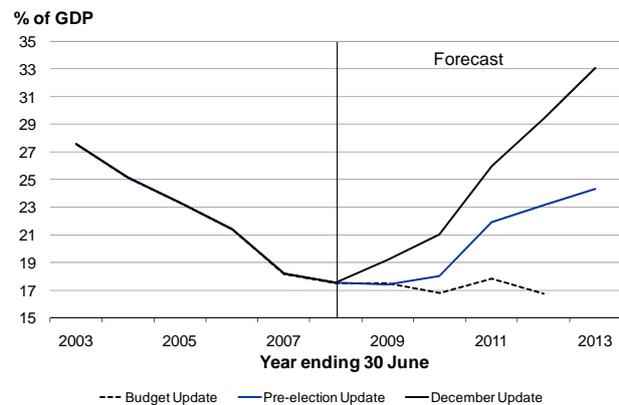
Year ending 30 June	2009	2010	2011	2012	2013
\$million	Forecast	Forecast	Forecast	Forecast	Forecast
<b>Residual cash</b>					
<b>Budget Update</b>	<b>(3,478)</b>	<b>(3,302)</b>	<b>(3,447)</b>	<b>(3,457)</b>	
<i>Economic-driven changes</i>					
Tax receipts	(748)	(1,022)	(1,268)	(954)	
Benefit expenses	(358)	(629)	(678)	(543)	
NZS Fund contributions	-	158	167	116	
Total economic-driven changes	(1,106)	(1,493)	(1,779)	(1,381)	
<i>Policy changes</i>					
Education expense changes	(239)	(111)	(208)	(254)	
KiwiSaver	(71)	(105)	(197)	(280)	
Treaty settlements	25	(440)	(130)	(130)	
Total policy changes	(285)	(656)	(535)	(664)	
<i>Net finance costs</i>	(382)	(171)	(358)	(641)	
<i>Other changes</i>	(658)	322	(484)	(672)	
<b>Total residual cash change from Budget Update</b>	<b>(2,431)</b>	<b>(1,998)</b>	<b>(3,156)</b>	<b>(3,358)</b>	
<b>Pre-election Update</b>	<b>(5,909)</b>	<b>(5,300)</b>	<b>(6,603)</b>	<b>(6,815)</b>	<b>(7,307)</b>
<i>Economic-driven changes</i>					
Tax receipts	(993)	(1,793)	(2,867)	(2,584)	(2,266)
Benefit expenses	(57)	(177)	(328)	(318)	(263)
Additional ACC funding	(297)	(297)	(297)	(297)	(297)
NZS Fund contributions	-	(254)	(162)	(132)	(204)
Total economic-driven changes	(1,347)	(2,521)	(3,654)	(3,331)	(3,030)
<i>Policy changes</i>					
Tax receipts	(254)	(1,058)	(1,028)	(915)	(975)
KiwiSaver and R&D tax credit	128	826	985	1,091	1,152
Increase in capital allowance	-	(150)	(350)	(550)	(550)
NZ Fast Forward (now operating flow)	700	(50)	(50)	(50)	(50)
Total policy changes	574	(432)	(443)	(424)	(423)
<i>Net finance costs</i>	(26)	(3)	(164)	(346)	(585)
<i>Other changes</i>	75	122	(4)	(5)	(39)
<b>Total residual cash change from Pre-election Update</b>	<b>(724)</b>	<b>(2,834)</b>	<b>(4,265)</b>	<b>(4,106)</b>	<b>(4,077)</b>
<b>December Update</b>	<b>(6,633)</b>	<b>(8,134)</b>	<b>(10,868)</b>	<b>(10,921)</b>	<b>(11,384)</b>

**...resulting in gross debt forecast to climb...**

Gross debt is forecast to increase by \$40.3 billion in nominal terms and as a percentage of GDP by 15.6% over the forecast period. By the end of the forecast period in the June 2013 year, gross debt is expected to be \$71.6 billion or 33.1% of GDP.

The issuance of domestic bonds (market) for 2008/09 has been set at \$4.5 billion and rises to \$15.9 billion in the 2013 June year. After meeting debt maturities, accumulated net bond issuances over the forecast period is \$39 billion and this translates into an increase in gross debt.

**Figure 11 – Gross debt**



Source: The Treasury

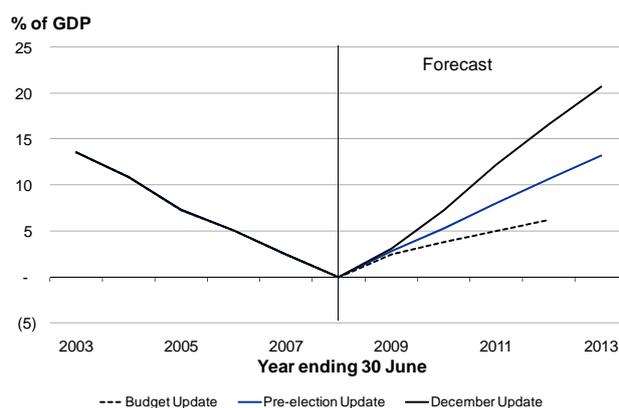
**Table 9 – Net increase in domestic bonds**

Year ending 30 June	2009	2010	2011	2012	2013	Total
\$million	Forecast	Forecast	Forecast	Forecast	Forecast	
Issue of domestic bonds (market)	4,565	7,740	11,245	15,009	15,881	54,440
Repayment of domestic bonds (market)	(2,700)	(4,097)	-	(4,983)	(5,018)	(16,798)
Net increase in domestic bonds (market)	1,865	3,643	11,245	10,026	10,863	37,642
Issue of domestic bonds (non-market)	770	862	245	825	817	3,519
Repayment of domestic bonds (non-market)	(451)	(599)	-	(585)	(533)	(2,168)
Net increase in domestic bonds (non-market)	319	263	245	240	284	1,351
<b>Net bond issuance</b>	<b>2,184</b>	<b>3,906</b>	<b>11,490</b>	<b>10,266</b>	<b>11,147</b>	<b>38,993</b>

**...as is net core Crown debt**

Core Crown net debt is also expected to rise to \$44.7 billion or 20.7% of GDP by June 2013. The increase in net core Crown debt is owing to the run-down of NZDMO financial assets and increases in borrowings expected during the forecast period.

**Figure 12 – Net core Crown debt**



Source: The Treasury

**Table 10** – Net debt movements from *Budget Update* to *Pre-election Update* and to *December Update*

Year ending 30 June \$million	2009 Forecast	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast
<b>Net debt</b>					
<b>Budget Update</b>	<b>4,578</b>	<b>7,272</b>	<b>10,145</b>	<b>13,193</b>	
<i>Economic-driven changes</i>					
Tax receipts	748	1,770	3,038	3,992	
Benefit expenses	358	987	1,665	2,208	
NZS Fund contributions	-	(158)	(325)	(441)	
Total economic-driven changes	1,106	2,599	4,378	5,759	
<i>Policy changes</i>					
Education expense changes	239	350	558	812	
KiwiSaver	71	176	373	653	
Treaty settlements	(25)	415	545	675	
Total policy changes	285	941	1,476	2,140	
<i>Net finance costs</i>	382	553	911	1,552	
<i>Alignment of 2008 forecast to actual year end</i>	(1,846)	(1,846)	(1,846)	(1,846)	
<i>Other changes</i>	702	572	1,007	1,554	
<b>Total net debt change from Budget Update</b>	<b>629</b>	<b>2,819</b>	<b>5,926</b>	<b>9,159</b>	
<b>Pre-election Update</b>	<b>5,207</b>	<b>10,091</b>	<b>16,071</b>	<b>22,352</b>	<b>29,042</b>
<i>Economic-driven changes</i>					
Tax receipts	993	2,786	5,653	8,237	10,503
Benefit expenses	57	234	562	880	1,143
Additional ACC funding	297	594	891	1,188	1,485
NZS Fund contributions	-	254	416	548	752
Total economic-driven changes	1,347	3,868	7,522	10,853	13,883
<i>Policy changes</i>					
Tax receipts	254	1,312	2,340	3,255	4,230
KiwiSaver and R&D tax credit	(128)	(954)	(1,939)	(3,030)	(4,182)
Increase in capital allowance	-	150	500	1,050	1,600
NZ Fast Forward (now operating flow)	(700)	(650)	(600)	(550)	(500)
Total policy changes	(574)	(142)	301	725	1,148
<i>Net finance costs</i>	26	29	193	539	1,124
<i>Other changes</i>	(375)	(497)	(493)	(488)	(449)
<b>Total net debt change from Pre-election Update</b>	<b>424</b>	<b>3,258</b>	<b>7,523</b>	<b>11,629</b>	<b>15,706</b>
<b>December Update</b>	<b>5,631</b>	<b>13,349</b>	<b>23,594</b>	<b>33,981</b>	<b>44,748</b>

## Alternative Scenarios

To illustrate the uncertainty associated with the current economic outlook, two alternative forecasts are presented below. These forecasts differ from the main forecast track by assuming different rates of trading partner growth and illustrate the considerable range in fiscal outcomes that could occur.

### Downside Scenario

The main forecast track incorporates a weak growth outlook for our trading partners. It is nevertheless prudent to consider the implications for the New Zealand economy if the slowdown in world growth were to be deeper and more prolonged than assumed in the main economic forecasts. While such a scenario does not represent our view of the most probable path for the New Zealand economy, given the size of downward revisions to the global outlook that have occurred over the past year, there still exists a reasonable probability of such a scenario occurring.

**Table 11** – Key economic features of the downside scenario

(Annual average % change, Year ending 31 March)	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast
<b>Real GDP components:</b>						
Private consumption	3.3	-0.2	-0.2	-0.5	0.9	1.8
Residential investment	3.8	-22.0	-18.8	6.3	14.1	18.4
Market investment	7.4	5.2	-23.7	2.0	16.0	8.8
Gross national expenditure	4.5	-0.1	-4.1	1.0	4.2	4.0
Exports of goods and services	2.3	-1.0	-3.2	1.7	8.9	7.7
Imports of goods and services	9.7	3.0	-14.0	-2.7	7.3	6.9
<b>GDP (production measure)</b>	<b>3.2</b>	<b>-0.2</b>	<b>-0.3</b>	<b>2.3</b>	<b>4.5</b>	<b>4.2</b>
Unemployment rate <sup>1</sup>	3.7	5.0	7.2	7.1	5.9	4.8
90-day bank bill rate <sup>2</sup>	8.8	5.0	3.5	3.2	4.0	5.0
TWI <sup>2</sup>	71.9	53.4	48.7	51.7	52.8	52.6
CPI <sup>3</sup>	3.4	3.1	3.1	1.0	1.2	1.5
Current account balance (% GDP)	-8.0	-9.7	-10.6	-5.6	-3.1	-3.5
Nominal GDP level (deviation from main forecast, \$billion)	0.0	-1.1	-6.9	-5.1	-4.5	-4.8

Sources: Statistics New Zealand, Reserve Bank of New Zealand, the Treasury

- Notes: 1 Percentage of labour force, March quarter, seasonally adjusted.  
 2 Average for March quarter.  
 3 Annual percentage change, March quarter.

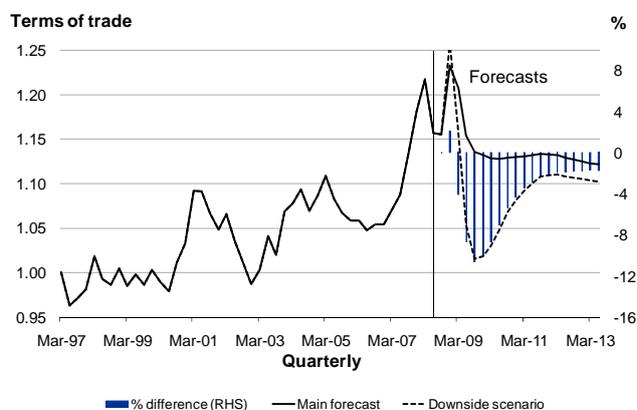
**Weaker growth abroad...**

In the downside scenario, New Zealand's top 20 trading partners are assumed to experience real GDP growth of only 0.4% and 1.6% in the 2009 and 2010 calendar years. Such levels are consistent with a severe world recession and are below the 1.2% and 2.4% rates of growth assumed in the main forecast. Such an outcome would likely see a greater slowing in developing economies in the face of slowing demand from advanced economies. In this scenario, real GDP growth in China over the 2009 calendar year is assumed to fall to 4%, well below both the main forecast assumption of 7.5% and its recent historical experience of rates in excess of 10%.

**...would result in more rapid falls in commodity prices...**

Weaker global demand would result in lower commodity prices relative to the main forecast. For some commodities, such as dairy, the impact of the price falls may be compounded by high levels of investment that took place or were planned during the period of high prices. Under the downside scenario world dairy prices (on a system of national accounts basis) fall 50% from the levels that prevailed at the start of 2008, with a trough that is 25% below that assumed in the main forecasts. Despite prices falling for many of the goods New Zealand imports, the fall in our export prices is sufficient for the merchandise terms of trade (on a system of national accounts (SNA) basis) to fall back to levels below those that prevailed prior to the large increase in the terms of trade that has occurred in the last couple of years.

**Figure 13 – Merchandise terms of trade**



Sources: Statistics New Zealand, the Treasury

**... and greater adjustment for the New Zealand economy**

Such an abrupt fall in the terms of trade would result in the need for more significant adjustment to occur in the New Zealand economy as the current account deficit would widen to nearly 11% of GDP by the end of calendar year 2009. This would put pressure on the New Zealand dollar which could fall to near historical lows of 48 on a trade weighted basis by the middle of 2009 as international investors reassessed the risk associated with the New Zealand economy.

The assumed weak state of the global economy would mean that, on balance, export growth would be weaker than in the main forecasts over the 2010 and 2011 March years, despite the benefits for exporters of a lower exchange rate, with services exports such as tourism being particularly hard hit in the 2010 March year. In addition, lower income flows in the economy and higher import prices in New Zealand dollar terms would see consumption growth lower than the main forecast throughout the forecast period.

### ***Investment falls further and unemployment peaks at 7.5%***

With weak demand both domestically and abroad, firms are assumed to further cut back on employment with the unemployment rate peaking at 7.5% in mid 2010. Under these circumstances interest rates are assumed to be cut more aggressively with 90-day bank bill rates falling to nearly 3%. However, with firms cautious about recession, credit availability remaining tighter and imported capital goods more expensive owing to the lower exchange rate, business investment is forecast to decline by nearly 24% in the 2010 March year, to a rate below that of economic depreciation of the capital stock.

### ***Weaker real activity and prices would mean substantially lower nominal GDP...***

Overall, in this scenario real GDP growth would be weaker than in the main forecast over the 2009 to 2011 March years, with the economy expected to contract by 0.2% and 0.3% in the 2009 and 2010 March years respectively. Weaker demand would see annual rates of inflation below those of the main forecast, with the exception of the March 2010 year when the depreciation of the exchange rate would cause tradables inflation to spike. Lower prevailing prices, coupled with lower real activity, would result in a much lower level of nominal GDP. Over the 2009 to 2013 March years the cumulative difference in nominal GDP levels compared to the main forecast is \$22.4 billion.

Households would face greater adjustment owing to lower employment, lower wage growth and higher import prices. The current account deficit would fall to around 3% of GDP by 2012 as exports experienced strong growth over the last couple of years of the forecast period as global growth recovered and the exchange rate remained low by recent standards.

### ***...resulting in lower tax revenue***

The downside scenario's weaker labour market and lower business profits would see all the major income taxes being lower than in the main forecast. In addition, the lower interest rate track would produce much less resident withholding tax (RWT) on interest. GST would also be lower due to lower levels of consumption and residential investment. In effect, this scenario produces similar but stronger tax effects compared to those noted in the commentary on the main forecast. Overall, tax revenue over the 2009 to 2013 period would be about \$9 billion lower than in the main forecast, with the reduction in the final year of the forecast period being around \$2 billion.

### ***Government expenses would not change significantly...***

The downside scenario shows government expenses would be broadly in line with the main forecast. Although the unemployment rate is expected to be higher under the downside scenario, resulting in higher benefit costs, this is somewhat offset as the impact of price indexation on benefits would be lower. The impact on finance costs under the downside scenario would also be minimal when compared against the main forecast as the finance costs relating to a higher debt position would be partially offset by interest rates being lower under the downside scenario.

**...and this would mean significantly larger fiscal deficits**

The OBEGAL deficit under the downside scenario is forecast to be \$1 billion in the 2009 June year rising to around \$8.6 billion by the June 2013 year. The core Crown residual cash deficit in the June 2009 year would be an estimated \$7.1 billion and would rise to \$13.6 billion in the June 2013 year.

Both the OBEGAL and core Crown residual cash beyond the June 2010 year would be just over \$2 billion weaker compared to the main forecast, primarily owing to weaker tax revenue.

**Table 12** – Fiscal implications of the scenarios

Year ending 30 June	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast
<b>\$billion</b>						
<b>Core Crown tax revenue (\$billion)</b>						
Upside scenario	56.7	55.4	54.8	56.9	60.5	64.1
<b>Main forecast</b>	<b>56.7</b>	<b>55.4</b>	<b>54.4</b>	<b>55.3</b>	<b>58.3</b>	<b>61.9</b>
Downside scenario	56.7	55.0	52.2	53.1	56.1	59.7
<b>Core Crown expenses (\$billion)</b>						
Upside scenario	57.0	62.7	64.7	67.1	70.3	74.4
<b>Main forecast</b>	<b>57.0</b>	<b>62.7</b>	<b>65.4</b>	<b>68.5</b>	<b>72.0</b>	<b>76.2</b>
Downside scenario	57.0	62.7	65.5	68.7	72.2	76.2
<b>OBEGAL (\$billion)</b>						
Upside scenario	5.6	-0.6	-3.6	-3.8	-4.0	-4.1
<b>Main forecast</b>	<b>5.6</b>	<b>-0.6</b>	<b>-4.1</b>	<b>-6.0</b>	<b>-6.3</b>	<b>-6.3</b>
Downside scenario	5.6	-1.0	-6.3	-8.5	-8.8	-8.6
<b>Gross debt (\$billion)</b>						
Upside scenario	31.4	34.8	38.3	47.6	55.4	64.3
<b>Main forecast</b>	<b>31.4</b>	<b>34.8</b>	<b>38.8</b>	<b>50.3</b>	<b>60.5</b>	<b>71.6</b>
Downside scenario	31.4	34.8	40.3	55.6	68.2	81.7
<b>Core Crown net debt (\$billion)</b>						
Upside scenario	0.0	5.6	12.9	20.8	28.8	37.4
<b>Main forecast</b>	<b>0.0</b>	<b>5.6</b>	<b>13.3</b>	<b>23.6</b>	<b>34.0</b>	<b>44.7</b>
Downside scenario	0.0	6.1	15.8	28.4	41.2	54.2
<b>Percentages of GDP</b>						
<b>OBEGAL (% GDP)</b>						
Upside scenario	3.1	-0.3	-1.9	-1.9	-1.9	-1.8
<b>Main forecast</b>	<b>3.1</b>	<b>-0.3</b>	<b>-2.2</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-2.9</b>
Downside scenario	3.1	-0.6	-3.6	-4.5	-4.4	-4.1
<b>Gross debt (% GDP)</b>						
Upside scenario	17.5	19.2	20.6	24.1	26.4	29.1
<b>Main forecast</b>	<b>17.5</b>	<b>19.2</b>	<b>21.0</b>	<b>26.0</b>	<b>29.4</b>	<b>33.1</b>
Downside scenario	17.5	19.5	22.7	29.4	34.0	38.6
<b>Core Crown net debt (% GDP)</b>						
Upside scenario	0.0	3.1	6.9	10.5	13.7	16.9
<b>Main forecast</b>	<b>0.0</b>	<b>3.1</b>	<b>7.2</b>	<b>12.2</b>	<b>16.5</b>	<b>20.7</b>
Downside scenario	0.0	3.4	8.9	15.0	20.5	25.6

Across the forecast period, core Crown residual cash deficits would total around \$9.5 billion more than under the main forecast. The increase in the deficits would need to be met by increased borrowings. As a result, gross debt would be higher than the main forecast, rising to \$81.7 billion or 38.6% of GDP by June 2013.

## Upside Scenario

In response to weakness in their economies, a number of countries have responded with aggressive easing of monetary policy and fiscal packages aimed at supporting key financial institutions and/or stimulating demand. The economic response to these measures is the subject of considerable uncertainty. If world economies prove more responsive to the collective impact of these measures than is implicitly assumed in the main forecasts, then it is possible that there may be stronger growth over the 2009 calendar year flowing through to New Zealand.

**Table 13** – Key economic features of the upside scenario

(Annual average % change, Year ending 31 March)	2008 Actual	2009 Forecast	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast
<b>Real GDP components:</b>						
Private consumption	3.3	0.0	0.5	1.0	1.9	2.4
Residential investment	3.8	-21.5	-10.7	16.2	18.5	9.8
Market investment	7.4	7.2	-12.4	4.2	2.6	4.5
Gross national expenditure	4.5	0.4	-1.1	2.9	3.1	3.4
Exports of goods and services	2.3	-1.0	-0.4	3.5	6.2	5.0
Imports of goods and services	9.7	3.2	-7.1	1.0	3.3	4.3
<b>GDP (production measure)</b>	<b>3.2</b>	<b>0.3</b>	<b>1.3</b>	<b>3.6</b>	<b>3.9</b>	<b>3.6</b>
Unemployment rate <sup>1</sup>	3.7	4.7	5.7	5.3	4.6	4.1
90-day bank bill rate <sup>2</sup>	8.8	5.5	5.5	6.4	6.4	6.6
TWI <sup>2</sup>	71.9	56.5	57.6	57.0	55.6	54.3
CPI <sup>3</sup>	3.4	3.4	2.1	2.2	2.4	2.3
Current account balance (% GDP)	-8.0	-9.2	-7.4	-5.4	-5.0	-5.1
Nominal GDP level (deviation from main forecast, \$billion)	0.0	0.0	1.2	3.5	4.4	4.8

Sources: Statistics New Zealand, Reserve Bank of New Zealand, the Treasury

Notes: 1 Percentage of labour force, March quarter, seasonally adjusted.  
2 Average for March quarter.  
3 Annual percentage change, March quarter.

### ***A relatively stronger world economy and some recovery in asset prices...***

In this scenario, a stronger response by world economies to the various fiscal and monetary policy initiatives would result in stronger growth in our trading partners, with confidence and credit availability concerns easing more rapidly. New Zealand's top 20 trading partners are assumed to grow 1.8% in 2009 and 3.0% in 2010, this compares to the 1.2% and 2.4% assumed in the main forecast. Stronger growth could see asset prices in equity markets

recover more rapidly, which would result in positive wealth effects relative to the main forecast, particularly if house prices were also to show a more pronounced recovery in light of increased confidence.

**...would contribute to higher exports...**

A faster recovery in the world economy would help promote higher export growth relative to the main forecast. This would be partially offset by a higher exchange rate, which could occur if risk aversion were to moderate.

**...and stronger investment**

With firms and households more positive about the future and an environment of reduced financial market turmoil, market investment would prove stronger than in the main forecast over the 2010 and 2011 years. More rapid recovery in house prices would feed through into renewed housing sector confidence with residential investment higher than in the main forecast.

**Private consumption would also be higher...**

Lower unemployment, which under this scenario would not reach 6%, and increased confidence, would see private consumption grow stronger than the main forecast from the 2010 March year.

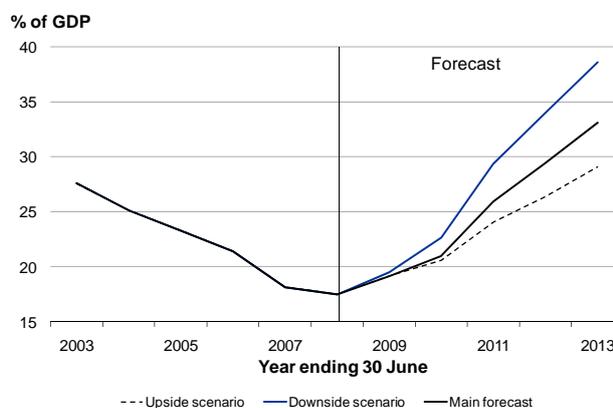
**...contributing to \$14 billion more nominal GDP over 2010 to 2013**

Stronger demand would contribute to higher inflation than in the main forecast over most of the forecast period with the exception of the March 2010 year when the higher exchange rate would see inflation lower. Higher prices, combined with real GDP growth that would be an estimated 0.5% and 0.7% higher in the 2010 and 2011 March years respectively, would contribute to nominal GDP being a cumulative \$14 billion higher than the main forecast over the 2010 to 2013 March years.

**Stronger tax revenue would strengthen the fiscal position**

Higher levels of nominal GDP would contribute to higher tax revenue of a cumulative \$6.4 billion over the forecast period. Core Crown expenses would be \$0.5 billion lower owing to lower benefit expenses and lower debt servicing leading to a lower OBEGAL deficit relative to the main forecast. By June 2013 this would mean that GSID would be an estimated 4% of GDP lower than in the main forecast, at 28.5%.

**Figure 14 – Gross debt**



Source: The Treasury

## Ten-year Post-forecast Projections

The preceding parts of this *Update* have focused on forecasts out until 2013. This section provides 10-year post-forecast fiscal projections, covering the subsequent decade (the 2014 to 2023 June years).

### ***Projections are subject to greater caveats and are less comprehensive than forecasts***

Projections differ from forecasts in both the manner they are produced and the sense of accuracy they portray. The forecasts are based on comprehensive modelling of the macroeconomy, which flows through into forecasts of tax revenue and the overall fiscal position. By contrast, the projections extrapolate the conditions existing in the final year of the forecast period, using assumptions about how elements of revenue and expenditure will change over time.

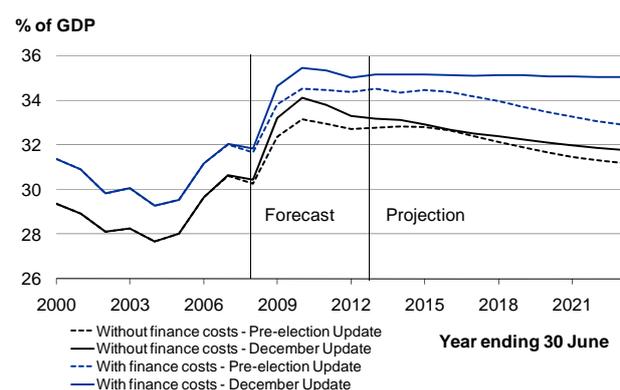
### ***Future actions to curb rising debt are not captured in the projections***

There is another important caveat concerning the post-forecast projections produced for this *Update*, which is that they do not include any future policy responses designed to influence future debt levels. Policy settings and assumptions for projected years have been left largely as they were at the *Budget Update*, with the exceptions of the changes to the personal tax regime, the savings from the removal of research and development tax credits and changes to the KiwiSaver scheme. Future updates will reflect changes to policy settings as they are made.

### ***In the absence of policy changes, continued deficits are projected...***

Figure 15 illustrates that, with the exception of debt financing costs, projected expenses are relatively similar to their *Pre-election Update* track. There have been changes in the composition of overall expenses, such as higher benefit costs and lower KiwiSaver expenditure, but in total the changes have largely offset one another. It is via increased finance costs, arising from higher debt levels, that expenditure contributes most to the deterioration over the projection period of the OBEGAL track since the *Pre-election Update*.

**Figure 15 – Core Crown expenses**



Source: The Treasury

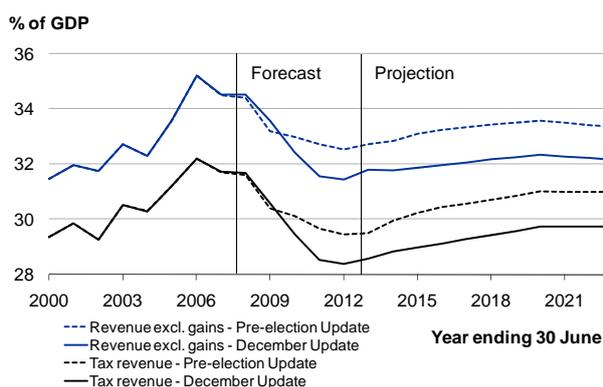
Revenue tracks, on the other hand, have reduced markedly from their *Pre-election Update* positions. As Figure 16 depicts, it is reduced income, especially from tax, in both the forecasts and projections that is the main cause of the deterioration in the operating balance. Tax revenue forecasts are lower than they were in the *Pre-election Update*, largely due to the weaker economic outlook. It is from this reduced base that the tax projections grow.

Figure 17 shows the combined effects of the expenditure and revenue impacts discussed above on the OBEGAL track. This *Update's* projections indicate continued OBEGAL deficits of around 2% of GDP from 2019 on. This contrasts with the *Pre-election Update*, when it was projected to return to surplus by June 2018.

**...and debt is projected to rise substantially...**

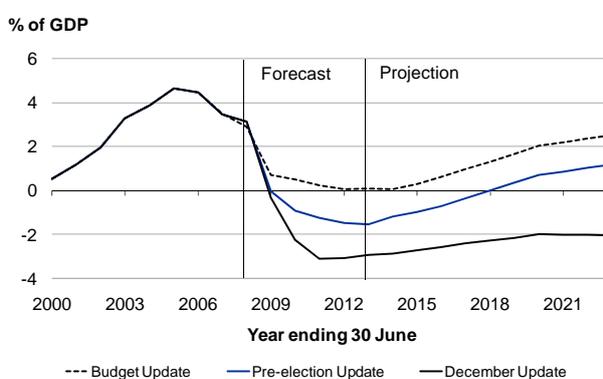
The need to fund continued deficits contributes to gross debt being projected to rise substantially, with GSID (excluding Settlement Cash) increasing to an estimated 57% of GDP in 2023. Another factor contributing to the increase in projected debt levels relative to previous *Updates* is the need to fund larger capital programmes due to increased capital allowances. The weaker outlook for nominal GDP also increases the debt-to-GDP ratio for any given level of debt.

**Figure 16 – Core Crown revenue**



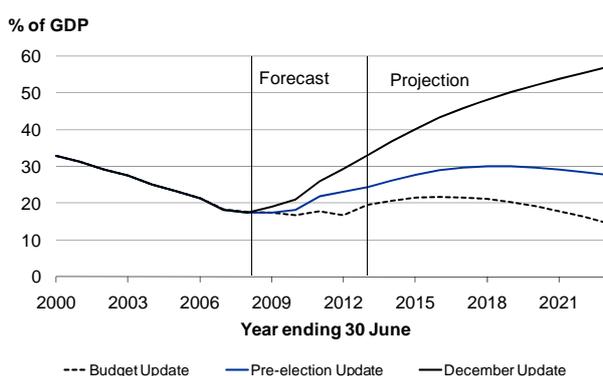
Source: The Treasury

**Figure 17 – OBEGAL projections**



Source: The Treasury

**Figure 18 – Gross debt projections**



Source: The Treasury

**...with both gross and net debt not projected to diminish at any stage**

Figure 19 shows that the pattern of continued increases in gross debt is also seen with net core Crown debt. Under these assumptions net debt reaches 47% by 2023.

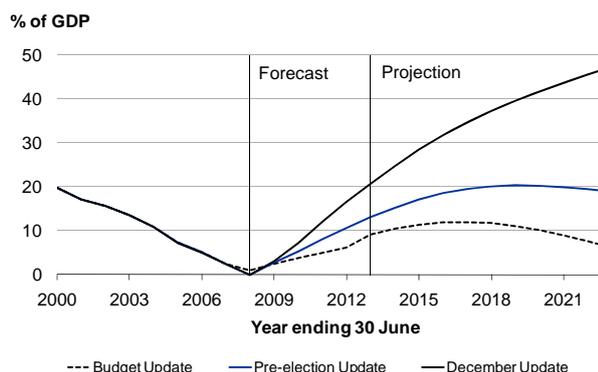
**Uncertainty about the economic outlook translates into uncertainty over the projection period**

Projections are highly sensitive to the economic and fiscal conditions from which they are derived. With the current volatile macroeconomic situation, the uncertainty around the main forecast base is more pronounced for this *Update* than is normally the case. Fiscal projections launched off both the downside and upside scenarios have been produced and these illustrate that the different fiscal outcomes that are forecast in 2013 are magnified when estimates are extended out until 2023.

Projections based on the upside scenario still show ongoing OBEGAL deficits, but these do narrow to around 0.7% of GDP by 2023. Projections based on the downside scenario show the OBEGAL deficit remaining broadly around 4% of GDP over the projection period. The gap between the projected OBEGAL deficits under this scenario and the main forecast widens over the projection period. This is chiefly due to the ever-increasing impact of higher finance costs in the downside scenario.

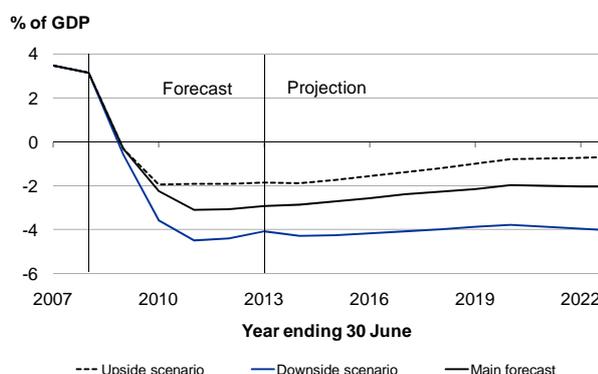
Gross debt is projected to rise to 76% of GDP by 2023 under the downside scenario and 44% of GDP under the upside scenario. This contrasts to the 57% of GDP projected when the main forecasts are used as the projection starting point. The cumulative nature of debt growth gives rise to the widening difference, over the projection period, between the scenarios and the projection based on the main forecast.

**Figure 19 – Net core Crown debt**



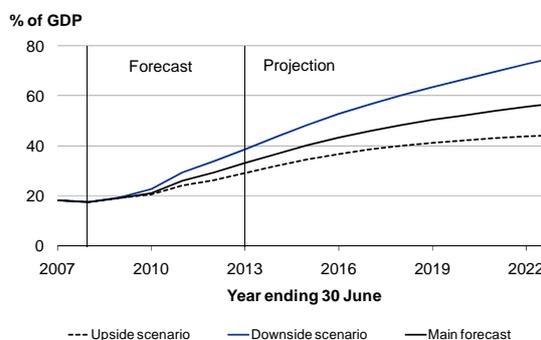
Source: The Treasury

**Figure 20 – OBEGAL scenarios**



Source: The Treasury

**Figure 21 – Gross debt scenarios**



Source: The Treasury

### ***Lower levels of debt are possible***

The *Budget Policy Statement* notes that the projected rise in debt and declines in the Crown's net worth are outside the range that the Government considers prudent. The Government will therefore not allow these projections to eventuate and has a range of options open to it to ensure this. As noted in the *Budget Policy Statement*, these options include carefully scrutinising its own expenditure to ensure value for money outcomes, considering alternative forms of financing for long term projects, continuing to ensure that its tax bases are maintained and ensuring that the commercial assets it owns are managed as effectively as possible. Corrective actions in these areas can make a substantial improvement to the long term projected fiscal track. The 2009 *Fiscal Strategy Report* will set out further steps that the Government intends to take.

## Finalisation Dates and Assumptions for the Forecasts

### Economic and fiscal forecasts - finalisation dates

Text finalised	12 December
Economic data	20 November
Economic forecasts	20 November
Tax revenue forecasts	3 December
Fiscal forecasts	8 December

### Economic Forecast Assumptions

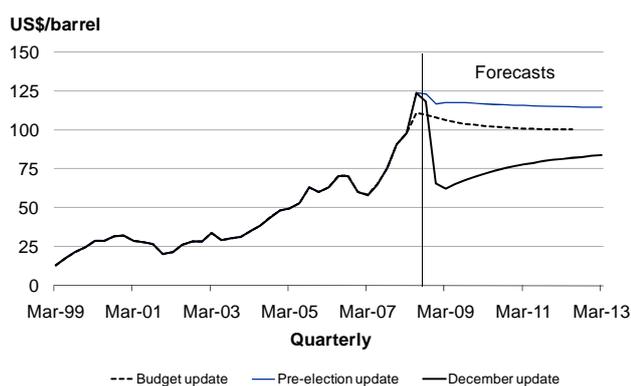
The economic forecasts are based on the assumptions detailed below:

*Trading partner growth* - *Consensus* forecasts for economic growth in New Zealand's top 20 trading partners have been revised down steadily over the course of 2008. In anticipation of further revisions, we have reduced the November *Consensus* forecasts from 1.7% and 3.3% in calendar years 2009 and 2010 (respectively) to 1.2% and 2.4%. Growth is estimated to recover subsequently to around 3.5%. Given the considerable uncertainty around these numbers we consider scenarios based on different levels of world growth.

*Global inflation and interest rates* - In the *December Update*, the G-3 long-term policy rates have been revised lower to reflect weaker world economic growth. Interbank rates, while remaining at elevated levels, have been marginally revised down as lower policy rates have started to have some effects in the interbank lending markets. The inflation outlook is also lower owing to the significant softening in international fuel and commodity prices. In the medium term, the weaker economic outlook and lower fuel and commodity prices will continue to help contain inflation.

*Oil prices* - The price of West Texas Intermediate (WTI) oil is assumed to decline from an average of US\$118/barrel in the September quarter of 2008 to under US\$63/barrel before increasing to US\$84/barrel at the end of the forecast period. These forecasts were based on the average futures prices in the week to 12 November 2008. Since this period, oil prices have fallen further as demand has fallen as the world economy slows. In the March quarter of 2009 the oil price assumption is 41% below that in the *Budget Update* and 47% below that in the *Pre-election Update*.

**Figure 22 – West Texas Intermediate oil price**



Sources: Datastream, the Treasury

*Terms of trade* - The merchandise terms of trade (as measured in the System of National Accounts) are estimated to have peaked in the December quarter of 2008, and to decline 9% in the following five years as commodity prices fall from their peaks. Most of the decline is forecast to occur over the first six months of 2009.

*Monetary conditions* - The New Zealand dollar (NZ dollar) exchange rate is assumed to decline 19% from 65.5 on the Trade Weighted Index (TWI) in the September quarter of 2008 to 53 at the end of the forecast period. Ninety-day interest rates are assumed to fall from

8.2% in the September quarter of 2008 to 4.75% in the second half of 2009 before increasing over the final two years of the forecast. These forecasts were finalised before the Reserve Bank reduced the Official Cash Rate by 150 basis points on 4 December 2008. That may hasten the fall in interest rates in the near term.

*External migration* - The net inflow of permanent and long-term migrants is assumed to increase from under 4,800 in the year to September 2008 to 10,000 per annum by March 2011.

*Policy and tax* - The economic forecasts incorporate changes to tax rates and thresholds and the changes to capital allowances outlined below. The Emissions Trading Scheme (ETS) is assumed to impact on stationary energy and liquid fuels from 1 January 2010 and 1 January 2011 respectively, as assumed in the *Pre-election Update*.

### Fiscal Forecast Assumptions

The fiscal forecasts are based on the 2008 *Pre-election Update* adjusted for the significant assumptions detailed below:

A comprehensive set of macroeconomic forecasts has been used to update taxation revenue and welfare benefit expenditure.

The fiscal forecasts include changes to personal tax rates and thresholds and introduction of the independent earners tax credit to be introduced by the Government, together with the savings from the removal of research and development tax credit and changes to the KiwiSaver scheme.

**Table 14** – Personal income tax rates and thresholds

	Previous		New	
<i>From 1 April 2009</i>	<i>Income</i>	<i>Tax rate</i>	<i>Income</i>	<i>Tax rate</i>
	\$0 - \$14,000	12.5%	\$0 - \$14,000	12.5%
	\$14,000 - \$40,000	21.0%	\$14,000 - \$48,000	21.0%
	\$40,000 - \$70,000	33.0%	\$48,000 - \$70,000	33.0%
	\$70,000+	39.0%	\$70,000+	38.0%
<i>From 1 April 2010</i>	<i>Income</i>	<i>Tax rate</i>	<i>Income</i>	<i>Tax rate</i>
	\$0 - \$17,500	12.5%	\$0 - \$14,000	12.5%
	\$17,500 - \$40,000	21.0%	\$14,000 - \$50,000	21.0%
	\$40,000 - \$75,000	33.0%	\$50,000 - \$70,000	33.0%
	\$75,000+	39.0%	\$70,000+	37.0%
<i>From 1 April 2011</i>	<i>Income</i>	<i>Tax rate</i>	<i>Income</i>	<i>Tax rate</i>
	\$0 - \$20,000	12.5%	\$0 - \$14,000	12.5%
	\$20,000 - \$42,500	21.0%	\$14,000 - \$50,000	20.0%
	\$42,500 - \$80,000	33.0%	\$50,000 - \$70,000	33.0%
	\$80,000+	39.0%	\$70,000+	37.0%

The forecasts also include:

- an estimated increase in the level of ACC funding for the non-earners account; and
- forecast revenue from the retail deposit scheme. Forecast revenue in relation to the wholesale funding facility has not been included in this forecast owing to the uncertainty of timing and amount.
- The allowance for new operating initiatives for Budget 2009 is set at \$1.75 billion (growing by 2% inflation for subsequent Budgets), which is unchanged from the *Pre-election Update*.
- The allowance for new capital initiatives for Budget 2009 is set at \$1.45 billion, which is an increase of \$550 million compared to the *Pre-election Update*. Allowances for subsequent Budgets covered in the forecast period have also been set at \$1.45 billion.
- It is assumed that these allowances are sufficient to meet the indicative spending commitments made by the new Government in their election campaign.
- The domestic bond programme and resulting finance costs have been updated.
- The forecasts incorporate the actual fiscal position and results to 31 October 2008. The most notable change is investment returns to 31 October have been adjusted in the current year to reflect the recent financial market turmoil. Beyond the June 2009 year, gains on financial instruments are based on long-term benchmark rate of returns.

As with the economic forecasts, the fiscal forecasts assume no change to the existing ETS with the impact on stationary energy and liquid fuels taking effect from 1 January 2010 and 1 January 2011 respectively.

#### Projection Assumptions

The following table shows the fiscal assumptions used for the projections.

**Table 15** – Summary of fiscal assumptions used in the 10-year projections

Tax revenue	Linked to growth in nominal GDP, with a constant tax-to-GDP ratio assumed for all components except for PAYE. PAYE is grown using employment growth and nominal average hourly wage growth, with the latter multiplied by a fiscal drag elasticity of 1.35.
NZS	Currently indexed to inflation, but is constrained for a married couple to the weekly rate being between 66% and 72.5% of net (after-tax) average weekly earnings. By the June 2011 year, the 66% wage floor is reached and growth in the NZS expense is driven by demographic changes and the growth of net average weekly earnings. Assumes the tax rate on average weekly earnings, being a part of overall PAYE, increases due to fiscal drag and that average weekly earnings grow at the rate of the nominal average hourly wage.
Other benefits	Demographically adjusted and linked to inflation.
Health and education	Demographically adjusted.

Finance costs	A function of debt levels and interest rates.
Other	Not demographically adjusted.
Operating allowance	\$1.694 billion in the June 2014 year. This is equivalent to \$1.894 billion with a \$200 million adjustment, which is the approximate expense that is already included in projected baselines as a result of demographic growth. \$1.894 billion is based on the \$1.750 billion new spending allowance set for Budget 2009, with subsequent operating allowances increasing at the rate of inflation over the forecast and projection periods.
Capital allowance	\$1.65 billion in the June 2014 year, and remains at this level in 2015 and 2016. After that it returns to a track where values are derived from a \$900 million starting point in the June 2014 year increasing at the rate of inflation each year.
Surplus DMO financial assets	\$0 billion
NZS Fund	Contributions to the Fund are assumed to be consistent with the New Zealand Superannuation Fund Act 2001 <sup>3</sup> .
Emission Trading Scheme (ETS)	The fiscal impact of the ETS depends on several highly uncertain factors, most notably future carbon prices and New Zealand's emissions targets from future international climate change agreements. The ETS has no impact on debt beyond the June 2013 year in the fiscal projections as a policy of full recycling of revenue is assumed. Net revenue (the value of credits received after free allocation of credits to participating industries and after meeting future emission liabilities) is assumed to be recycled back to the public through fiscally equivalent, unspecified tax reductions or spending increases.
Future emissions liabilities	The Kyoto liability included in fiscal forecasts reflects the Government's obligation for Commitment Period 1, which is for the period 2008-2012. Base case projections beyond the June 2014 year do not incorporate a quantitative estimate of any net emissions liability that may eventuate from New Zealand's obligations under future international climate change agreements.

<sup>3</sup> The *Pre-election Update* provides details on contributions over the next four years. Further details can be found in "Financing New Zealand Superannuation", a Treasury *Working Paper 01/20*, available at [www.treasury.govt.nz/workingpapers/2001/01-20.asp](http://www.treasury.govt.nz/workingpapers/2001/01-20.asp).

## Risks to Fiscal Forecasts

Risks to the fiscal forecasts take two forms:

- **Policy decisions not yet taken by the Government.** These consist of the policy priorities that the Government intends progressing through the Budget process and Specific Fiscal Risks. Specific Fiscal Risks are policies or proposals about which the Government has not yet made a decision but which are being actively considered by the Minister of Finance and relevant portfolio Ministers. Specific Fiscal Risks were last reported in the 2008 *Pre-Election Update* (see pages 57-82). The Government is currently working through the Specific Fiscal Risks, confirming those that will fall by the wayside and identifying new risks. Updated Specific Fiscal Risks will be provided in the 2009 *Budget Update*. The forecasts assume that the costs arising from future spending decisions will be met from within existing baselines and the operating and capital allowances provided in each Budget for new spending.
- **Forecasting risks.** A normal half-year fiscal forecast process would involve obtaining detailed forecasts from all Government departments along with significant Crown Entities and State-owned Enterprises (a “bottom up” approach). As this *Update* was performed so soon after the *Pre-election Update*, and was intended to present a high level view of the impact of current economic conditions on the fiscal outlook, a top down approach has been adopted (i.e. the fiscal forecasts are based on the 2008 *Pre-election Update* adjusted for significant assumptions detailed on pages 49 and 50). Overall, this top down approach is considered appropriate and robust. Some forecasting risks also contain a policy element around which ministers may have to take an active decision.

Outlined below are the forecasting risks relevant to these forecasts.

### ***Forecasting Risks***

#### *Economic forecasts*

A number of the components of the fiscal forecasts (e.g. tax revenue and benefit costs) are based on the main macroeconomic forecasts. Any variation from the main macroeconomic forecasts will affect the fiscal forecasts.

#### *Tax policy changes*

There have been many tax policy changes that have been enacted recently and/or are in the pipeline; e.g. the company tax rate has been cut, personal income tax rates and thresholds have been changed and more changes are yet to come, the PIE and FDR regimes for the taxation of investments have been introduced, etc. The increased complexity in the tax system, as well as the uncertainty around the resulting impact on taxpayer behaviour, has increased the risks around tax revenue and receipts forecasts.

#### *KiwiSaver risks*

The fiscal forecasts incorporate an assumed take-up rate profile for the KiwiSaver regime. The actual take-up rate could be higher or lower than assumed, or faster or slower than assumed.

### *Early Childhood Education risks*

The fiscal forecasts incorporate an assumed take-up rate profile for the ECE scheme. The actual take-up rate may be higher or faster than assumed.

### *Bond issuances*

The fiscal forecasts include a significant increase in bond issuances across the forecast period. This increase may result in a corresponding increase in the interest rates relating to those issuances, a “volume premium”. As the occurrence or extent of such a premium is uncertain, it has not been included in the fiscal forecasts. By way of illustration, a premium from 2009/10 rising steadily from an initial 20 basis points to 50 basis points by 2012/13 would add approximately \$240 million to finance costs across the forecast period.

### *Investment portfolios*

A number of entities included in the fiscal forecasts hold large investment portfolios. Entities holding significant equity portfolios (the NZS Fund, ACC and EQC) have been adversely impacted by the continuing volatility of financial markets.

The fiscal forecasts include the actual results of these entities to 31 October 2008 and, subsequent to 31 October 2008, an estimated long-term rate of return. Any deviation from this long-term rate will affect the fiscal outcome.

### *Value of goodwill*

At 31 October 2008, the Crown recognised goodwill of just under \$450 million. The value of goodwill as an asset of the government is dependent on the value of the underlying investment. The worsening economic conditions increase the risk that this investment will decrease in value to less than its current carrying value. This would lead to an impairment of goodwill and a reduction in the operating balance.

### *Long-term liability valuations*

The Government Superannuation Fund and ACC liabilities included in these forecasts have been valued as at 31 October 2008 and 30 June 2008 respectively. While the ACC liability valuation has been updated for changes to the discount rate since 30 June 2008, it has not been updated for other assumption changes.

The liabilities are to be next valued for the *2009 Budget Update*. Any change in the underlying assumptions of this subsequent valuation will affect the fiscal outcome. For example, if the discount rate rises, the value of the liabilities will decrease.

The fiscal forecasts also include an estimate of the funding requirements in relation to those long-term liabilities. Actual funding may differ from these estimates as a result of subsequent valuations.

### *Financial sector guarantees*

The Government recently announced the introduction of two guarantee schemes in relation to the financial sector; the retail deposit scheme and the wholesale funding guarantee facility. Details of these schemes are available on the Treasury website and in the latest published financial statements of the Government. At 30 November 2008, 40 institutions

had joined the retail scheme and deposits of approximately \$125 billion had been guaranteed, while no guarantees had been issued under the wholesale facility.

The fiscal forecasts include an estimate of fee income from the retail scheme. No guarantee income has been included in the forecasts from the wholesale funding guarantee facility, as the timing and magnitude of any income cannot be reliably estimated.

#### *Uncalled capital, indemnities and guarantees*

The worsening economic conditions increase the possibility that some contingent liabilities such as uncalled capital, indemnities and guarantees will be realised at a future date. Any realisation would most likely result in an increase in the Government's debt as well as a reduction in its operating balance.

#### *ACC funding*

The fiscal forecasts include an estimate of additional funding requirements in relation to the ACC non-earners account (\$297 million per annum across the forecast period). While the Government has approved interim changes to appropriations, it has announced its intention to review ACC funding.

#### *Emissions Trading Scheme*

The forecasts in relation to the ETS are based on a number of assumptions and projections, all of which may change through time. In addition, the Government has indicated it will review the ETS. At the time of finalising the forecasts it is unclear what changes will be made to the Scheme from the review and how these changes will impact the fiscal position.

#### *Treaty of Waitangi settlements*

The Government has signalled settling all Treaty claims by 2014. If this timeframe is agreed this would increase the cost of Treaty claims currently built into the forecasts, as settlement expenses will be compressed into a shorter time frame.

# Time Series of Fiscal and Economic Indicators

## Fiscal Indicators

Years ending 30 June	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
\$million	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast									
<b>Revenue and Expenses</b>																	
Core Crown revenue excl NZS Fund	33,131	34,242	32,880	34,946	37,842	39,945	43,440	46,219	51,045	56,951	58,482	61,671	60,406	59,715	61,144	64,506	68,765
Core Crown expenses	31,368	32,982	33,939	34,829	36,559	37,513	39,897	41,882	44,895	49,320	54,003	56,997	62,741	65,428	68,524	71,953	76,158
<b>Surpluses</b>																	
Total Crown OBEGAL	1,801	2,345	128	594	1,422	2,471	4,366	5,573	7,075	7,091	5,860	5,637	(550)	(4,110)	(6,008)	(6,305)	(6,325)
Total Crown OBEGAL excl NZS Fund	1,801	2,345	128	594	1,422	2,456	4,297	5,526	7,140	7,252	6,250	5,586	(812)	(4,029)	(5,903)	(6,175)	(6,175)
Total Crown operating balance	1,863	2,048	1,705	1,405	1,208	2,286	1,621	7,309	5,931	9,542	8,023	2,384	(4,329)	(1,990)	(3,598)	(3,609)	(3,333)
<b>Cash Position</b>																	
Core Crown residual cash	3,913	484	2,048	(386)	349	216	1,217	520	3,104	2,985	2,877	2,057	(6,633)	(8,134)	(10,868)	(10,921)	(11,384)
<b>Debt</b>																	
GSID (excluding settlement cash)	36,236	38,475	37,307	36,580	37,194	36,650	36,617	36,017	35,478	33,903	30,647	31,390	34,786	38,788	50,327	60,451	71,641
Net core Crown debt (incl NZS Fund)	25,562	24,635	22,275	21,900	20,293	19,051	16,093	11,613	4,538	(1,817)	(7,467)	(12,953)	(7,244)	498	7,625	14,603	21,538
Net core Crown debt	25,562	24,635	22,275	21,900	20,293	19,666	17,977	15,569	11,093	8,044	4,109	(19)	5,631	13,349	23,594	33,981	44,748
<b>NZS Fund</b>																	
NZS Fund net worth	..	..	..	..	..	615	1,884	3,956	6,555	9,861	12,973	14,212	14,335	17,787	21,486	25,467	29,805
<b>% GDP</b>																	
<b>Revenue and Expenses</b>																	
Core Crown revenue excl NZS Fund	33.5	33.7	31.4	31.5	32.0	31.8	32.8	32.5	33.9	36.3	34.8	34.2	33.3	32.4	31.5	31.4	31.8
Core Crown expenses	31.7	32.5	32.4	31.4	30.9	29.8	30.1	29.4	29.8	31.4	32.1	31.7	34.6	35.5	35.3	35.0	35.2
<b>Surpluses</b>																	
Total Crown OBEGAL	1.8	2.3	0.1	0.5	1.2	2.0	3.3	3.9	4.7	4.5	3.5	3.1	(0.3)	(2.2)	(3.1)	(3.1)	(2.9)
Total Crown OBEGAL excl NZS Fund	1.8	2.3	0.1	0.5	1.2	2.0	3.2	3.9	4.7	4.6	3.7	3.1	(0.4)	(2.2)	(3.0)	(3.0)	(2.9)
Total Crown operating balance	1.9	2.0	1.6	1.3	1.0	1.8	1.2	5.1	3.9	6.1	4.8	1.3	(2.4)	(1.1)	(1.9)	(1.8)	(1.5)
<b>Cash Position</b>																	
Core Crown residual cash	4.0	0.5	2.0	(0.3)	0.3	0.2	0.9	0.4	2.1	1.9	1.7	1.1	(3.7)	(4.4)	(5.6)	(5.3)	(5.3)
<b>Debt</b>																	
GSID (excluding settlement cash)	36.6	37.9	35.6	32.9	31.4	29.1	27.7	25.3	23.5	21.6	18.2	17.5	19.2	21.0	26.0	29.4	33.1
Net core Crown debt (incl NZS Fund)	25.8	24.3	21.3	19.7	17.1	15.1	12.2	8.2	3.0	(1.2)	(4.4)	(7.2)	(4.0)	0.3	3.9	7.1	9.9
Net core Crown debt	25.8	24.3	21.3	19.7	17.1	15.6	13.6	10.9	7.4	5.1	2.4	(0.0)	3.1	7.2	12.2	16.5	20.7
<b>NZS Fund</b>																	
NZS Fund net worth	..	..	..	..	..	0.5	1.4	2.8	4.3	6.3	7.7	7.9	7.9	9.6	11.1	12.4	13.8

## Economic Indicators

March Years	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Annual average % change	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Private consumption	4.3	2.4	3.1	3.3	1.4	2.8	4.9	6.6	5.0	4.7	2.9	3.3	0.0	0.4	0.2	1.1	1.9
Public consumption	1.4	7.3	-0.3	5.8	-2.0	4.0	1.4	4.9	4.2	5.1	4.0	4.1	3.7	4.5	4.0	3.2	2.7
<b>TOTAL CONSUMPTION</b>	<b>3.7</b>	<b>3.5</b>	<b>2.3</b>	<b>3.8</b>	<b>0.6</b>	<b>3.0</b>	<b>4.1</b>	<b>6.2</b>	<b>4.8</b>	<b>4.8</b>	<b>3.1</b>	<b>3.5</b>	<b>0.8</b>	<b>1.3</b>	<b>1.1</b>	<b>1.6</b>	<b>2.1</b>
Residential investment	4.9	3.0	-13.0	19.5	-13.3	2.0	23.6	15.0	2.9	-5.2	-2.7	3.8	-21.7	-10.9	6.9	9.9	14.3
Non-market investment	18.3	14.0	-4.8	13.0	-13.8	21.9	13.7	15.6	14.2	-1.0	-4.9	-12.2	2.1	7.9	4.4	3.6	3.2
Market investment	4.3	-2.2	2.6	6.9	8.0	6.9	2.3	12.2	11.9	8.4	-0.7	7.4	7.2	-15.0	3.2	6.9	5.8
<b>TOTAL INVESTMENT</b>	<b>5.1</b>	<b>0.2</b>	<b>-2.3</b>	<b>10.6</b>	<b>0.4</b>	<b>6.8</b>	<b>7.8</b>	<b>13.1</b>	<b>9.3</b>	<b>4.4</b>	<b>-1.9</b>	<b>4.3</b>	<b>-2.6</b>	<b>-11.0</b>	<b>6.6</b>	<b>8.3</b>	<b>7.5</b>
Stock change (contribution to growth)	-0.4	-0.2	-0.3	1.2	-0.3	0.1	-0.1	0.2	0.3	-0.5	-0.9	0.9	0.5	0.0	-0.4	-0.2	0.1
<b>GROSS NATIONAL EXPENDITURE</b>	<b>3.5</b>	<b>2.6</b>	<b>0.9</b>	<b>6.3</b>	<b>0.3</b>	<b>3.9</b>	<b>4.7</b>	<b>7.8</b>	<b>6.1</b>	<b>4.1</b>	<b>1.1</b>	<b>4.5</b>	<b>0.4</b>	<b>-1.8</b>	<b>1.9</b>	<b>2.9</b>	<b>3.5</b>
Exports	4.7	3.9	2.9	7.4	6.3	3.0	7.8	0.9	4.6	0.0	3.1	2.3	-1.0	-1.9	2.5	7.5	6.4
Imports	6.4	2.5	2.1	11.3	-0.7	4.0	7.2	12.7	12.5	4.2	-1.6	9.7	3.2	-8.7	-0.9	3.9	4.9
<b>EXPENDITURE ON GDP</b>	<b>3.1</b>	<b>2.9</b>	<b>1.2</b>	<b>5.2</b>	<b>2.4</b>	<b>3.5</b>	<b>5.0</b>	<b>4.0</b>	<b>3.8</b>	<b>2.9</b>	<b>2.5</b>	<b>2.4</b>	<b>-0.6</b>	<b>0.8</b>	<b>3.0</b>	<b>3.9</b>	<b>3.8</b>
<b>GDP (production measure)</b>	<b>3.5</b>	<b>1.7</b>	<b>0.5</b>	<b>5.3</b>	<b>2.4</b>	<b>3.6</b>	<b>4.9</b>	<b>4.3</b>	<b>3.8</b>	<b>2.9</b>	<b>1.8</b>	<b>3.2</b>	<b>0.3</b>	<b>0.8</b>	<b>2.9</b>	<b>3.9</b>	<b>3.8</b>
- annual % change	2.0	0.3	2.6	6.4	0.7	4.6	4.6	5.3	2.4	2.9	2.4	2.2	-0.1	1.6	3.5	4.1	3.6
Real GDP per capita	1.9	0.5	-0.2	4.7	1.8	2.7	3.1	2.4	2.3	1.7	0.6	2.1	-0.6	-0.2	2.0	2.9	2.9
Nominal GDP (expenditure basis)	4.9	3.7	1.7	6.0	5.7	7.5	5.1	6.8	7.1	4.9	5.2	7.5	1.5	1.3	4.7	5.8	5.6
GDP deflator	1.8	0.8	0.5	0.9	3.2	3.9	0.2	2.6	3.3	1.9	2.6	4.9	2.2	0.5	1.6	1.8	1.7
Employment (full-time equivalent)	2.2	0.0	-0.8	2.0	2.2	2.6	2.5	2.9	3.6	2.7	2.0	0.8	0.4	-2.0	-1.0	1.6	3.0
Unemployment (% March quarter s.a.)	6.5	7.1	7.1	6.3	5.3	5.2	4.8	4.1	3.8	3.9	3.7	3.7	4.7	6.4	6.2	5.4	4.6
Wages (average ordinary-time hourly)	3.8	3.3	2.9	2.2	2.4	3.5	2.9	3.4	3.3	4.7	4.8	4.2	5.4	4.2	3.7	3.0	2.9
CPI inflation (ann % change, March qtr)	1.8	1.3	-0.1	1.5	3.1	2.6	2.5	1.5	2.8	3.3	2.5	3.4	3.4	2.4	1.9	1.9	1.9
Merchandise terms of trade (SNA basis)	0.0	-1.8	0.9	0.2	3.4	4.0	-5.6	4.3	3.5	-2.1	-1.1	9.4	2.7	-4.3	-0.7	0.3	-0.6
Current account balance - \$billion	-5.8	-5.4	-4.4	-7.0	-5.1	-3.9	-4.5	-6.7	-10.3	-14.6	-13.8	-14.2	-17.0	-15.7	-13.1	-10.5	-10.5
Current account balance - % of GDP	-6.0	-5.3	-4.2	-6.4	-4.4	-3.1	-3.4	-4.8	-6.8	-9.3	-8.3	-8.0	-9.4	-8.6	-6.9	-5.2	-4.9
TWI (March quarter)	68.4	61.2	57.6	54.1	50.5	51.6	60.6	66.9	69.6	68.3	68.8	71.9	56.5	54.4	54.2	53.7	53.0
90-day bank bill rate (March quarter)	7.5	8.9	4.5	6.0	6.4	5.0	5.8	5.5	6.9	7.6	7.8	8.8	5.5	4.8	4.8	5.1	5.6
10-year bond rate (March quarter)	7.5	6.8	5.7	7.3	6.0	6.7	6.0	5.9	6.0	5.7	5.9	6.3	5.9	5.7	5.8	6.0	6.0