1

Economic and Fiscal Update

Overview

The New Zealand economy is expected to continue its recovery from recession. After contracting in both the March 2009 and 2010 years, the economy is forecast to grow by around 3% per annum over the next four years. This recovery is expected to flow through to the fiscal position and drive a reduction in operating deficits.

However, the economy has suffered an ongoing loss of output compared to what was expected before the recession and the recovery is expected to be more gradual than previous upturns. With operating deficits remaining over the forecast period, net core Crown debt is expected to rise steadily. Medium-term projections in the *Fiscal Strategy Report* show the operating balance (before gains and losses) returns to surplus in the June 2016 year.

Uncertainty continues to surround the outlook, particularly the strength of the current recovery and whether imbalances in the economy that built up in the previous expansion will adjust. There are also growing risks associated with recent developments in Europe related to sovereign debt. Some of the key risks to the outlook are explored in alternative scenarios, with stronger or weaker outcomes possible.

Economic Outlook

The economy is expected to experience above-average growth over the next four years as it recovers gradually from recession. The forecast recovery is driven by stimulatory monetary conditions, a stronger global economy, an associated rise in export volumes and prices, and high confidence levels. The economy is also expected to be positively affected by significant tax reform in Budget 2010, including:

- a reduction in personal income tax rates at existing income thresholds to 10.5%, 17.5%, 30% and 33% from 1 October 2010
- a rise in GST from 12.5% to 15% on 1 October 2010, and
- a cut in the tax rate for companies, portfolio investment entities and other savings vehicles from 30% to 28% and base-broadening measures from 1 April 2011.

These changes shift the burden of taxes to sources less harmful for growth. Personal income tax cuts are expected to raise the supply of labour by increasing the economic returns of working. They will also help encourage more saving. For businesses, the tax changes may help reorient investment towards more productive parts of the economy.

The nominal economy is forecast to grow strongly over the next two years as real growth recovers, the terms of trade strengthen and inflation is higher. Consumer price inflation is expected to temporarily spike over the next year as a result of changes in government policy, particularly the rise in GST. The strengthening nominal economy flows through to growing tax revenue, although taxes lag the recovery because of a build-up of corporate losses emanating from the recent recession.

Fiscal Outlook

The fiscal position has weakened significantly in recent years. Crown revenue has fallen owing to a combination of income tax cuts, the recession and a long-lasting impact on the economy from the global financial crisis. Previous spending decisions, which had been in place before the crisis, lifted Crown expenses. The recession added to this increase as a weaker labour market caused the number of Unemployment Benefit recipients to rise. As expenses rose and revenue fell, the Crown operating balance was in deficit in the June 2009 year for the first time in 15 years.

Operating deficits are expected to fall over the next four years owing largely to a recovery in tax revenue. Crown expenses are forecast to rise, boosted by higher benefit payments when GST rises, but trend down as a share of the economy as unemployment falls and the annual operating allowance remains at $1.1 billion (growing at 2% per annum after 2010/11). However, the operating balance is still expected to be in structural (ie, non-cyclical) deficit over the forecast period.

Ongoing operating deficits are expected to see a fall in net worth over the forecast period, as well as a rise in net debt to over 26% of Gross Domestic Product (GDP). Although debt levels would remain lower than most developed nations, New Zealand faces relatively high borrowing costs so the financing costs of any given level of debt are higher. As outlined in the *Fiscal Strategy Report*, the Government's long-term fiscal objective is for net debt to be brought back to a level no higher than 20% of GDP by the early 2020s.

Table 1.1 – Summary of the Treasury's economic and fiscal forecasts

	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
Economic (March years, %)						
Economic growth[1]	-1.4	-0.3	3.2	3.1	2.9	3.0
Consumer price inflation[2]	3.0	2.2	5.9	2.4	2.4	2.4
Unemployment rate[3]	5.0	7.1	6.2	5.5	5.1	4.6
Fiscal (June years, % of GDP)						
Operating balance[4]	-2.1	-3.7	-4.2	-2.5	-1.9	-1.3
Net debt[5]	9.3	14.1	19.6	23.0	25.3	26.5
Net worth[6]	54.0	50.9	43.9	39.8	37.0	34.8

Notes: 1 Real production GDP, annual average percentage change
2 Consumers Price Index, annual percentage change
3 Percent of labour force, March quarter, seasonally adjusted
4 Total Crown operating balance before gains and losses
5 Net core Crown debt excluding the New Zealand Superannuation Fund and advances
6 Total Crown net worth

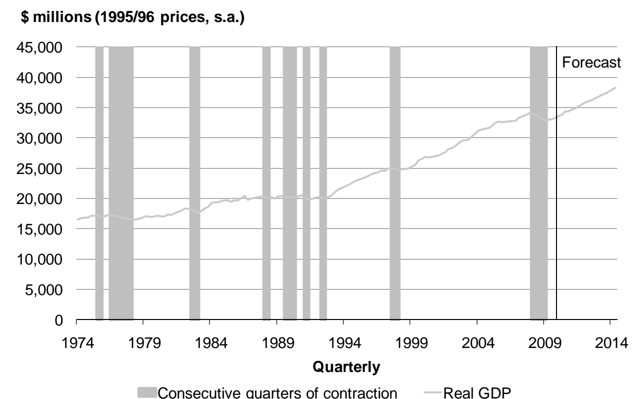
Sources: Statistics New Zealand, the Treasury

Economic Outlook

The economy is recovering from recession...

The New Zealand economy contracted throughout 2008 and early 2009 (Figure 1.1). The initial triggers of recession in early 2008 were domestic factors, including drought and tight monetary policy to combat growing inflation pressures at the time. This domestic-led recession was deepened by the global financial crisis, which escalated in mid-September 2008.

Figure 1.1 – Real production GDP



Sources: Hall and McDermott (2009), Statistics New Zealand, the Treasury

The impact of the global downturn on New Zealand, while significant, was smaller than for most developed nations. In the OECD, only Australia and Poland had smaller falls in real output from when the crisis began. New Zealand's performance was supported by a sound financial system, growth in key trading partners China and Australia, strong commodity exports, falling emigration and monetary and fiscal stimulus. These factors also helped pull New Zealand out of recession in the June 2009 quarter. Although the beginning of the recovery in mid-2009 was subdued, it gathered strength in the December quarter with growth of 0.8%.

...but significant imbalances built up before the recession

Significant imbalances built up in the economy during the expansion in the 2000s. These imbalances, although closely related, can be broadly categorised as follows:

- Strong domestic demand, including government expenditure, gradually increased pressure on available resources and resulted in persistently high inflation. Monetary policy tightened during this period, with higher interest rates encouraging the New Zealand dollar to appreciate.

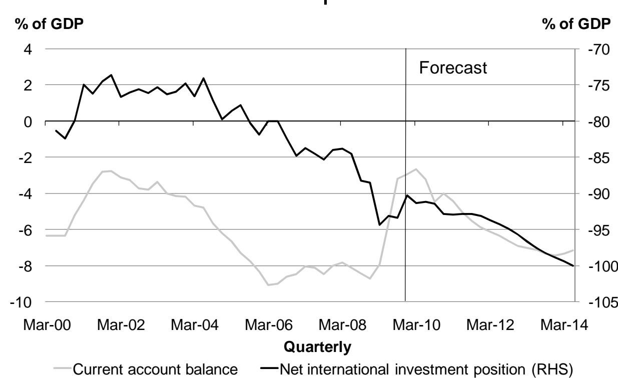
- Domestic demand was partially funded from high rates of borrowing, with household and agriculture debt rising sharply over much of the 2000s driven partly by increasing house and farm prices. However, house and farm prices rose well above fundamental determinants, such as income and farm returns.

- The years leading up to recession featured a divergence of growth between sectors. The tradable sector, which includes primary, manufacturing and tourism industries, did not grow from early 2004 to the peak of the last economic upturn in late 2007. In contrast, non-tradable industries such as construction, retail and government administration grew strongly.

- Relatively strong investment and a fall in national saving, led by households, contributed to a rise in the current account deficit to around 8% of GDP on average from 2004 to 2008, before it fell during the recession. The savings of foreigners were increasingly used to finance these deficits, which raised the net international liability position to over 90% of GDP by early 2009.

These imbalances were facilitated by easier global credit and low risk aversion, and were also apparent in other developed nations. Although New Zealand came through the recent global downturn relatively well, New Zealand's past and projected current account deficits, domestic indebtedness and its net international liability position are large relative to most developed nations, making the economy vulnerable to some types of shocks. With a gradual economic recovery expected to continue, the current account deficit is forecast to widen again from 2.6% of GDP to over 7% of GDP. Such deficits would mean a rise in the net international liability position to 100% of GDP by mid-2014 (Figure 1.2). However, there are a number of factors that support New Zealand's position. These include sound macroeconomic settings (eg, a flexible exchange rate and independent monetary policy), external debt that is largely denominated in local currency or hedged, relatively low public debt and a robust banking system.

Figure 1.2 – Current account balance and net international investment position



Sources: Statistics New Zealand, the Treasury

The recovery from recession is expected to be gradual...

After a fall of 1.4% in the March 2009 year and 0.3% in the March 2010 year, real output is expected to grow at around 3% per annum: 3.2% in the March 2011 year; 3.1% the next year; 2.9% in the March 2013 year; and 3.0% in the March 2014 year. These growth rates are higher than our estimate of potential growth over these four years of around 2.8% per annum.[1] The positive outlook is supported by the lagged impact of an easing in monetary conditions since mid-2008, a stronger global environment and associated higher demand for exports, high confidence levels, the hosting of the Rugby World Cup in late 2011 and the tax package.

The tax package in Budget 2010 has a significant impact on the economic outlook, although the exact impact will depend on the responses of numerous firms and individuals and is therefore uncertain. The tax package and its impacts are outlined on pages 68 to 70. At the economy-wide level, the main impacts are assumed to be:

- The level of real output is expected to be 0.9% higher in the long run. By the June 2014 quarter, the economic forecasts incorporate a level of real output that is 0.4% higher than in the absence of the tax package. This impact takes time given the amount of spare capacity in the economy currently. Therefore, in the medium-term projections in the *Fiscal Strategy Report*, a further impact of 0.5% is expected by June 2017.
- The tax package is also forecast to cause volatility in output growth in the second half of 2010. Real output is expected to grow strongly in the September quarter and fall slightly the next quarter as some consumer spending, particularly on durable goods, is brought forward before the increase in the GST rate on 1 October 2010.

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[1] Potential growth is an estimate of how fast the economy can grow without generating inflation pressure.

- The tax changes are expected to boost incomes, help encourage more saving and reorient investment towards more productive parts of the economy.

Table 1.2 – Economic forecasts[1]

(Annual average % change, March years)	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
Private consumption	-1.1	0.6	2.9	1.7	2.5	2.3
Public consumption	4.2	1.0	2.3	1.4	0.9	0.6
Total consumption	**0.1**	**0.7**	**2.8**	**1.6**	**2.1**	**1.9**
Residential investment	-22.8	-9.9	22.0	13.5	7.3	4.3
Non-market investment	12.0	-2.8	-5.4	-3.6	3.8	4.6
Market investment	-1.9	-10.4	6.2	10.3	4.7	3.0
Total investment	**-7.2**	**-9.2**	**10.5**	**11.4**	**5.6**	**3.5**
Stock change[2]	0.0	-1.9	1.1	0.4	0.3	0.0
Gross national expenditure	**-1.6**	**-3.3**	**5.6**	**4.3**	**3.3**	**2.3**
Exports	-3.4	2.8	1.6	4.7	3.5	3.3
Imports	-4.7	-9.9	9.0	8.9	5.0	1.5
GDP (expenditure measure)	**-1.0**	**0.4**	**3.4**	**3.0**	**2.7**	**3.0**
GDP (production measure)	**-1.4**	**-0.3**	**3.2**	**3.1**	**2.9**	**3.0**
Real GDP per capita	-2.4	-1.5	2.0	2.1	2.0	2.1
Nominal GDP (expenditure basis)	1.7	1.7	7.0	6.3	4.8	5.1
GDP deflator	2.7	1.3	3.5	3.3	2.0	2.1
Output gap (% deviation, March year)[3]	0.2	-1.7	-0.6	-0.6	-0.8	-0.6
Employment	0.9	-1.6	0.2	2.0	2.1	2.0
Unemployment[4]	5.0	7.1	6.2	5.5	5.1	4.6
Nominal wages[5]	5.3	3.3	2.6	3.5	3.7	3.9
CPI inflation[6]	3.0	2.2	5.9	2.4	2.4	2.4
Merchandise terms of trade[7]	-0.7	-6.3	4.9	0.6	1.7	1.0
Current account balance						
- $billion	-14.6	-4.9	-8.9	-13.1	-15.7	-17.2
- % of GDP	-7.9	-2.6	-4.4	-6.1	-7.0	-7.3
TWI[8]	53.7	65.3	65.2	63.5	58.5	54.0
90-day bank bill rate[8]	3.7	2.7	4.3	5.2	5.4	5.7
10-year bond rate[8]	4.6	5.9	5.9	5.9	5.9	6.0

Notes:
1. Forecasts finalised 16 April 2010
2. Contribution to GDP growth
3. Estimated as the percentage difference between actual real GDP and potential real GDP
4. Household Labour Force Survey, percent of the labour force, March quarter, seasonally adjusted
5. Quarterly Employment Survey, average ordinary-time hourly earnings, annual percentage change
6. Annual percentage change
7. System of National Accounts (SNA) basis, annual average percentage change
8. Average for the March quarter, actual for 2010

A longer time series for these variables is provided on page 160.

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

...as the global economy strengthens...

A stronger global economy is an important driver of these forecasts. The global financial crisis in late 2008 led the world economy into its worst and most synchronised recession since World War II. Output in the economies of our top-12 trading partners is estimated to have fallen by 0.9% in the 2009 calendar year, including falls of 2.4% in the United States, 4.9% in the United Kingdom and 5.2% in Japan. However, the recovery in the global economy has taken hold more strongly than previously expected, and all our major trading partners have returned to growth, with emerging economies particularly robust.

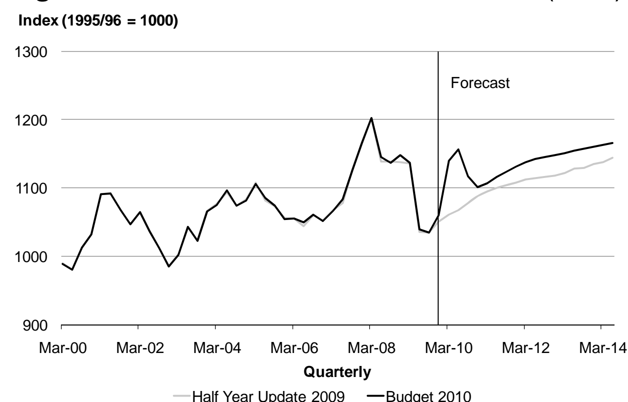
The economies of our top-12 trading partners are expected to grow by a relatively strong 3.7% in each of 2010 and 2011, and an average of 3.5% in each of the subsequent three years. Fast-growing emerging economies, particularly China, helped lead the world out of recession, and will remain crucial drivers of the global economy. New Zealand will benefit as fast-growing countries are taking a larger share of our exports over time. There will also be indirect benefits as economic growth in Australia, New Zealand's largest trading partner, is boosted by demand for minerals from emerging markets.

Although the global outlook is stronger than previously expected, there is still an ongoing impact from the financial crisis. Weak recoveries are predicted in Europe, Japan and the United Kingdom, in contrast to high growth in emerging economies. There are also a number of potential threats to the sustainability of the global recovery, which are explored further in the *Risks and Scenarios* section from page 76. In particular, concerns over sovereign debt in the Euro area, which have reached crisis levels in Greece and threaten to spread further, have worsened significantly since the Budget forecasts were finalised.

...and boosts demand for New Zealand's exports

World spot prices for New Zealand's commodity exports have returned to the peaks of 2008. A stronger world economy, especially emerging economies, has contributed to the rebound in prices, particularly for dairy products. Some of this increase is expected to be temporary, but dairy prices will be underpinned by growing demand for protein in the developing world as incomes rise. Higher export prices relative to import prices are expected to see the merchandise terms of trade strengthen (Figure 1.3).

Figure 1.3 – Merchandise terms of trade (SNA)



Sources: Statistics New Zealand, the Treasury

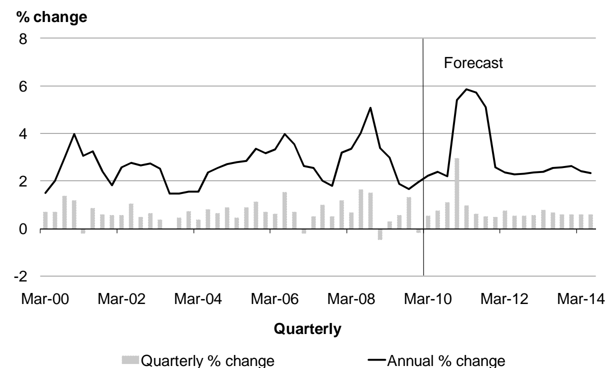
Growth in export volumes is forecast to rise as trading partner growth strengthens and the Rugby World Cup in late 2011 temporarily lifts services exports. Ongoing strong growth in exports over the rest of the forecast period reflects an assumed gradual depreciation of the New Zealand dollar. Already, a relatively low exchange rate against the Australian dollar has lifted prospects for service exports and non-commodity manufacturing. Changes in tax policy that help to shift resources to the tradable sector are also assumed to boost non-commodity exports slightly.

Inflation spikes temporarily because of a number of policy changes

A gradual tightening of monetary policy is expected over the forecast period, which sees 90-day interest rates rise from below 3% in the first half of 2010 to 4.8% in the September 2011 quarter and 5.8% by mid-2014. The output gap, the difference between actual and potential output, is estimated to close slowly from around -2% of GDP in the March 2010 year to almost zero by mid-2014. Underlying inflation pressures are thus expected to rise but stay relatively subdued.

Including policy changes, however, Consumers Price Index (CPI) inflation is forecast to rise to 5.9% in the year to March 2011 (Figure 1.4):

Figure 1.4 – Consumers Price Index



Sources: Statistics New Zealand, the Treasury

- The rise in tobacco excise taxes is expected to add 0.5% to the CPI between the June 2010 and March 2011 quarters.
- The introduction of the Emissions Trading Scheme (ETS) on 1 July 2010 is assumed to add around 0.4% to the CPI in the year to March 2011. Unlike the other changes, the ETS impact was included in the *Half Year Update 2009*.
- A rise in ACC levies for motorists on 1 July 2010 is expected to add 0.1% to the CPI in the September 2010 quarter.
- The rise in GST is estimated to add 2.0% to the CPI in the December 2010 quarter.

The short-term spike is assumed to have only a small impact on inflation expectations and therefore a limited impact on monetary policy. This assumption relies on pre-tax wages not responding fully to the rise in prices caused by the higher GST rate, as the net effect of the GST increase and lower personal income taxes is to boost real after-tax wages. Annual inflation averages 2.4% in the rest of the forecast period, within the Reserve Bank's medium-term target range of 1% to 3%.

Consumer spending recovers as confidence strengthens and job growth returns...

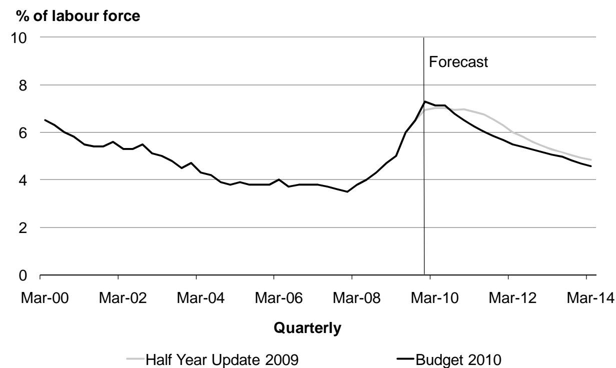
Private consumption growth is expected to strengthen over the next year owing to higher incomes from the rising terms of trade, improved consumer confidence and a fall in unemployment. Tax changes are expected to impact positively on household incomes as the higher GST rate, in aggregate, is more than compensated by the reduction in personal income taxes and higher social assistance benefit payments.

Private consumption is not forecast to grow as strongly as in the mid-2000s. Negative influences include: an expected rise in interest rates on a high level of household debt; lower net migration inflows as departures recover with an improvement in global labour markets; weaker growth in house prices; and some rebuilding of balance sheets by households. As a proportion of disposable income, the rate of household dis-saving is expected to be 7.0% by March 2014 compared with 13.7% in the March 2009 year.

...as firms begin to hire and invest...

As the economy strengthens, firms are expected to raise employment. The tax changes also provide a boost to employment of around 10,000 people, as lower personal income taxes encourage higher labour force participation. This boost is assumed to happen gradually to reflect the slow growth in the demand for labour. With employment growth returning, the unemployment rate is forecast to fall steadily towards 4.5% of the labour force by mid-2014 (Figure 1.5). Since the Budget forecasts were finalised, the unemployment rate has already declined from a peak of 7.1% in the December 2009 quarter (revised down from 7.3%) to 6.0% in the March 2010 quarter. This compares with an expected fall to 7.1% in the Budget forecasts. Although this measure of unemployment has been unusually volatile in recent quarters, the larger-than-expected fall, taken on its own, suggests the domestic recovery could be stronger than forecast.

Figure 1.5 – Unemployment rate



Sources: Statistics New Zealand, the Treasury

Residential investment is expected to rise sharply over the next two years, reflecting a catch-up from very low levels of building relative to population growth. Non-residential investment is also forecast to rebound strongly, given high levels of business confidence. Tax changes are assumed to boost overall investment slightly as the extra 10,000 workers anticipated require more capital to work with. The removal of housing depreciation and other tax changes are expected to shift the composition of investment, from residential to market investment, and lower house prices slightly from what they would have been in the absence of tax changes. However, there is much uncertainty about how large an impact these policy changes will have on investment and the housing market.

...but the level of output in the economy remains below pre-crisis trends

Potential output is still assumed to be lower compared to what was forecast prior to the global financial crisis. Real output is expected to be around 4.5% below the Budget 2008 forecast in the June 2012 quarter, which was the final period forecast at the time. This reflects the direct impact of the crisis, such as an increased cost of capital compared to pre-crisis levels and the resulting impact on business investment. It also reflects a re-evaluation of how sustainable growth had been in the previous expansion. In particular, economy-wide multifactor productivity growth is estimated by the Treasury to have averaged 0.4% per annum over the 2000s, down from 0.8% per annum in the 1990s.

Overall, a growing nominal economy boosts tax revenue

Growth in the nominal economy is forecast to rebound from 1.7% in the March 2010 year to 7.0% in the March 2011 year, before easing back gradually after that. Nominal output growth is expected to be driven by stronger real activity and higher prices, the latter reflecting the higher terms of trade and the stronger inflation profile. The rise in GST contributes to higher nominal output as nominal GDP is GST-inclusive. Nominal output growth is expected to flow through to higher core Crown tax revenue, but with a lag.

Core Crown tax revenue is forecast to fall by about 7% in the June 2010 year owing to:

- subdued business profits in the early stages of the recovery
- the recognition of $1.4 billion of company income tax in 2008/09, which was not repeated in 2009/10
- previous personal and business tax cuts
- a steep decline in interest rates in 2009 reducing interest withholding tax in 2010, and
- a forecasting assumption that previously-incurred tax losses are being used to offset current profits, reducing the corporate tax burden.

Source deductions (mostly PAYE) are expected to fall in the June 2011 year, as the 1 October 2010 personal income tax cuts come into effect. They then rise in line with a recovering labour market, in part driven by higher participation as a result of these tax cuts. GST revenue is forecast to rise as consumer spending rebounds and the GST rate rises to 15%. Corporate tax is expected to increase once business profits recover and the tax-loss cycle has run its course. The cut in the company tax rate from 30% to 28% is not expected to noticeably reduce corporate tax as there are offsetting base-broadening measures. Refer to the box on pages 68 to 70 for the full details of the tax changes.

Table 1.3 – Movement in core Crown tax revenue

Year ended 30 June $ billions	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
Core Crown tax revenue					
Budget 2009 Forecasts	**51.6**	**51.8**	**54.6**	**58.4**	-
Forecast changes	-0.4	2.5	2.6	2.0	-
Half Year Update 2009 Forecasts	**51.2**	**54.3**	**57.2**	**60.4**	**63.8**
Forecast changes	-0.5	0.4	1.4	1.9	2.4
Policy changes	0.0	-0.8	-0.6	-0.8	-0.8
Budget 2010 Forecasts	**50.7**	**53.9**	**58.0**	**61.5**	**65.4**
Composition of Budget 2010 Forecasts:					
Source deductions	21.9	20.2	21.0	22.6	24.4
Corporate tax	7.3	8.9	9.5	10.0	10.4
GST	11.7	14.4	15.9	16.7	17.6
Other taxes	9.8	10.4	11.6	12.2	13.0

Source: The Treasury

Inland Revenue also prepared a set of tax forecasts based on the Treasury's macroeconomic forecasts. The two forecasting teams compare forecasts to provide quality assurance for each other. The two sets of Budget 2010 forecasts are broadly similar to each other over the entire forecast period, with the difference in any given year not more than 1% of expected total tax revenue. The Treasury forecasts are lower than Inland Revenue's in the 2010 and 2011 June years but are higher in the 2013 and 2014 June years as the Treasury has incorporated a larger response to the economic recovery in its tax revenue forecasts than Inland Revenue.[2]

[2] For a detailed comparison of the Treasury and Inland Revenue forecasts of tax revenue, see *Additional Information* on the Treasury website.

Economic and Fiscal Impacts of the Tax Package

Budget 2010 introduces a number of changes to New Zealand's tax system. The details of these changes and the expected economic and fiscal implications are presented below. A statement of tax policy changes that materially affect the tax revenue forecasts is a requirement of the Public Finance Act.

Features of the Tax Package

- The rates of personal income tax will reduce (effective from 1 October 2010) from 12.5% to 10.5% for income up to $14,000; from 21% to 17.5% for income between $14,001 and $48,000; from 33% to 30% for income between $48,001 and $70,000; and a reduction from 38% to 33% for income over $70,000.
- The rate of GST will increase from 12.5% to 15% from 1 October 2010. Recipients of the main working-age benefits, student allowances, New Zealand Superannuation and Veterans Pensions will be compensated by a 2.02% increase in their payments from 1 October 2010. Annual indexation of these benefits will resume on 1 April 2011.
- Working for Families (Family Tax Credit and Minimum Family Tax Credit), the main important forms of supplementary assistance (except Accommodation Support and Student Loan Living Costs), and the Government Superannuation Fund (GSF) and National Provident Fund (NPF) annuities that are subject to CPI adjustments, will be increased by 2.02% from 1 October 2010.
- The company tax rate will be reduced to 28% from the 2011/12 income year.
- The top Portfolio Investment Entity (PIE) tax rate and the tax rate for savings vehicles such as superannuation funds will be reduced to 28% from 1 October 2010 for PIEs that pay tax at investors' marginal tax rates and from the 2011/12 income year for other savings vehicles.
- From the 2011/12 income year, tax depreciation will be set to 0% for all buildings with an estimated useful life of 50 years or more.
- The 20% depreciation loading will be removed for assets purchased after 20 May 2010 (Budget day).
- The 75% safe harbour in the inbound thin capitalisation rules applying to the New Zealand operations of foreign multinationals will be reduced to 60% from the 2011/12 income year.
- Pre-existing imputation credits will be able to be attached to dividends at the current maximum 30:70 imputation ratio for a two-year transitional period.
- Provisional tax will be reduced for taxpayers who pay provisional tax on the earlier year basis to reflect cuts in personal income tax rates and the company tax rate.
- The current qualifying company and loss attributing qualifying companies (LAQCs) rules will be replaced with full flow-through treatment for income tax purposes (similar to the rules currently applying to limited partnerships) for income years starting on or after 1 April 2011.
- Tax benefits relating to capital contributions made to fund the acquisition of capital assets will end. A capital contribution is a payment made to a supplier for the construction of an asset, for example, a payment to an electricity lines company to construct a line to a

building. Either the tax cost of a depreciable asset will exclude capital contributions, or the capital contribution must be amortised as income over 10 years. This change is to apply for contributions made after 20 May 2010.

- GST rule changes, including measures to address risks such as phoenix scheme fraud (where input tax credits are paid to a buyer of an asset but no GST output tax is collected due to insolvency or liquidation of the seller), will be introduced from 1 April 2011.
- Indexation of the Working for Families tax credits abatement threshold will be removed.
- Investment losses (such as losses from rental properties) will be excluded from the definition of income for the purposes of calculating Working for Families entitlements from 1 April 2011.
- Changes will be introduced with effect from 1 April 2011 to address integrity concerns in relation to eligibility or abatement of certain social assistance programmes, including the treatment of trust distributions, income from non-locked in PIEs, income from non-resident spouses and certain fringe benefits.
- The redundancy tax credit will be removed from 1 October 2010.
- An additional $119.3 million over four years will be provided to Inland Revenue for compliance and enforcement.

Economic Impacts

The tax changes will affect the New Zealand economy through the multitude of decisions made by firms and households. As a result, there is significant uncertainty associated with the impact of such policy changes. The economic forecasts and medium-term projections, which feature in the *Economic and Fiscal Update* and *Fiscal Strategy Report* respectively, assume that in aggregate the tax package will increase the level of real GDP by 0.9% over seven years. By the June 2014 quarter, the economic forecasts incorporate a level of real GDP that is 0.4% higher than in the absence of the tax package, and this grows to 0.9% by the 2016/17 projection year.

The impact on the real economy is mainly through the tax package's effect on the labour market. Private sector hours worked are assumed to increase by 0.8% and the rate of labour force participation by 0.5%.[3] No explicit allowance is made for altered incentives to study, undergo training, seek career advancement or to move to or stay in New Zealand. The number of people employed is expected to grow by 174,000 over the forecast period to 2.326 million. The tax package contributes around 10,000 of the rise. The timing of such impacts is influenced by the current cyclically-weak state of the economy and labour market.

In addition to the impact that a change in available labour has on the potential output of an economy, policy changes are likely to also influence the level and composition of capital via their influence on the incentives to invest. On average, firms will pay more tax as the reduction in the company tax rate does not fully offset the impact of higher taxable income owing to the changed depreciation and thin capitalisation rules. As a result, combined company and dividend tax revenue forecasts are slightly higher than they would have been in the absence of the package. The tax package is expected to change the allocation of investment, including a shift from the housing sector to the non-housing sector and the overall impact on market investment from these two channels is assumed to be largely offsetting.

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[3] See the Treasury Technical Note on the Basis of Assumptions Regarding the Effect of the Tax Package on Forecast and Projected Economic Growth: http://www.treasury.govt.nz/budget/forecasts/befu2010.

Despite this, investment is expected to be higher in the long run as a result of the tax package owing to the increase in labour and consequently GDP. This arises because of the need to provide the additional workers with capital to use. As a result, firms will increase investment.

The tax package is also likely to influence the composition of real GDP. Consumption is predicted to be higher because income gains from lower taxes are greater in aggregate than the GST increase. Incomes also increase owing to higher labour force participation and more hours worked. Market investment is higher owing to a shift from residential investment. Exports are higher as more investment will be in the tradable sector.

The Budget forecasts assume that the tax package will see house prices around 2% lower than would otherwise have been the case. Recent weakness in the housing market may have reflected people anticipating changes in this Budget.

The Budget forecasts include a much higher CPI inflation track than in the *Half Year Update* forecasts. This is predominantly owing to the increase in GST, but also the incorporation of the increase in tobacco excise taxes. Inflation is expected to peak at 5.9% in March 2011. This compares with 3.1% in the absence of the tax changes and is the result of a direct GST impact of 2.0%, a tobacco excise impact of 0.5% and a 0.3% impact owing to stronger domestic demand flowing from the tax changes and a small rise in inflation expectations (although these remain well-anchored).

Fiscal Impacts

Table 1.4 outlines the impact on the operating balance of the different parts of the tax package. The negative fiscal impact in the first few years is a transitional effect owing to the time required for revenue to accrue from some of the base-broadening measures. In the final year of the forecast period, the impact on the operating balance is positive, and the tax package is expected to be broadly fiscally neutral taking into account macroeconomic effects. The adjustment for macroeconomic effects includes the extra tax revenue the Government receives as a result of extra economic growth from the tax package; for example, higher levels of PAYE as more people are working. It also includes changes to benefit expenses resulting from stronger employment growth because of the labour market effects described above.

Table 1.4 – Fiscal impacts of tax changes in Budget 2010

$ million (rounded to nearest $5m)	Increase (decrease) in operating balance				
	2010/11	**2011/12**	**2012/13**	**2013/14**	**4-yr total**
Personal tax rate cuts	(2,455)	(3,685)	(3,935)	(4,255)	(14,330)
Compensation for GST rate increase	(420)	(585)	(610)	(620)	(2,235)
Company tax cut to 28%	(20)	(340)	(450)	(305)	(1,115)
PIEs & savings vehicles capped at 28%	(15)	(40)	(55)	(60)	(170)
Administration associated with tax package	(10)	-	-	-	(10)
Sub-total of negative impacts on operating balance	(2,920)	(4,650)	(5,050)	(5,240)	(17,860)
GST rate increase[1]	2,040	2,840	2,985	3,160	11,025
Non-compensatory Working for Families changes	5	40	75	65	185
Depreciation measures	140	935	1,000	1,045	3,120
LAQC changes	-	70	65	55	190
Thin capitalisation 60% threshold	-	200	200	200	600
GST base changes	15	60	60	60	195
Tobacco excise rate increases	135	180	210	190	715
Increased audit and compliance activity (net revenue)	120	210	210	205	745
Sub-total of positive impacts on operating balance	2,455	4,535	4,805	4,980	16,775
Sub-total of estimated static impact	**(465)**	**(115)**	**(245)**	**(260)**	**(1,085)**
Adjustment for macroeconomic effects	5	25	205	435	670
Total impact on operating balance	**(460)**	**(90)**	**(40)**	**175**	**(415)**

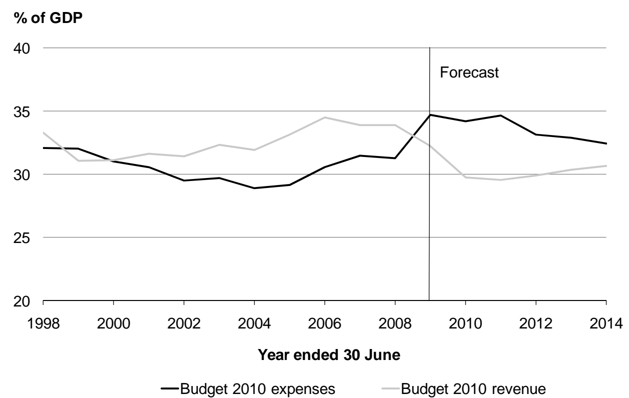
1 Includes the additional tax revenue generated from spending associated with the static net income gain for households resulting from the tax package

Fiscal Outlook

Core crown revenue expected to recover as taxes respond to a stronger economy

Core Crown revenue is expected to increase from $56.4 billion in the June 2010 year (29.8% of GDP) to $72.9 billion in the June 2014 year (30.7% of GDP), primarily led by the increase in tax revenue described above (Figure 1.6). Tax revenue is forecast to rebound as the economy recovers, albeit with a lag because of recent weakness in tax revenue and a build-up of losses.

Figure 1.6 – Core Crown expenses and revenue

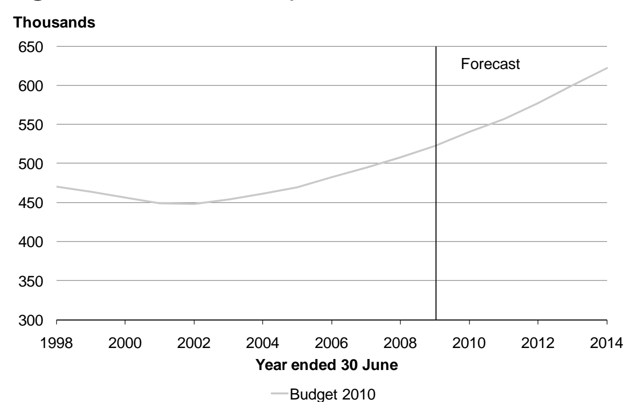


Source: The Treasury

Core Crown expenses are expected to grow in absolute terms, but fall as a share of the economy...

Core Crown expenses, which represent the operating spending of the Government excluding State-Owned Enterprises and Crown entities, are forecast to rise from $64.8 billion in the June 2010 year to $77.0 billion in the June 2014 year. This rise is expected to be driven by:

Figure 1.7 – NZS recipient numbers



Source: Ministry of Social Development

- Benefit payments are forecast to increase from $21.4 billion in the June 2010 year to $24.6 billion in the June 2014 year. The forecast increase in benefit payments over the next four years is owing to: growth in New Zealand Superannuation (NZS) recipient numbers of around 20,000 per annum (Figure 1.7), which on average adds an extra $320 million each year; indexation of social assistance benefit types increases expenses by around $1.7 billion over the next four years; offsetting some of the increase in benefit payments, a decline in Unemployment Benefit and Emergency Benefit recipient numbers from 79,000 to 60,000 as the unemployment rate falls from 7.0% in the June 2010 year to 4.6% in the June 2014 year.

- Finance costs are forecast to increase from $2.4 billion in the June 2010 year to $4.5 billion in the June 2014 year owing to the flow-on impact to debt servicing costs from the forecast increase in debt.

- The operating allowance for new spending allocated in Budget 2010 adds around $1.1 billion to expenses in the June 2011 year, primarily in the health and education sectors.[4] The operating allowance grows at 2% per annum thereafter (eg, $1.12 billion in the June 2012 year) and so adds a further $3.4 billion to expenses by the June 2014 year.

Although expenses rise in absolute terms, they decline as a share of the economy over time. This decline partly reflects the recovery in the economy. It also reflects the decision in Budget 2009 to reduce annual operating allowances for new spending to $1.1 billion (growing at 2% per annum after 2010/11). Core Crown expenses are forecast to rise from 34.2% of GDP to 34.7% in the June 2011 year and then fall to 32.4% by the June 2014 year.

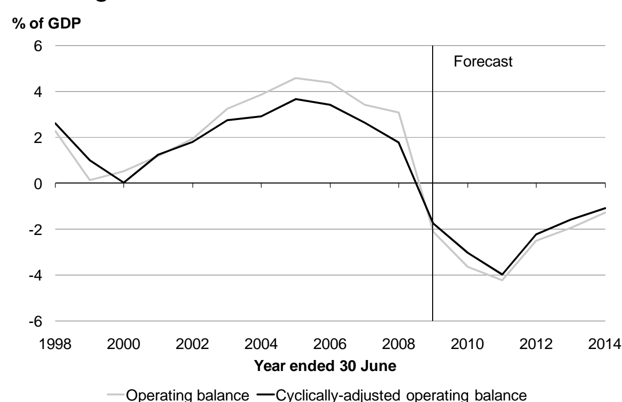
...operating deficits peak in the June 2011 year owing to one-off factors...

As the trend of expenses exceeding revenue continues, significant operating deficits are expected over the forecast period. The total Crown operating balance (before gains and losses) is expected to be in deficit by $6.9 billion this year (3.7% of GDP). Operating deficits are forecast to peak at $8.6 billion (4.2% of GDP) in the June 2011 year owing to:

- the tax package is broadly fiscally neutral by the end of the forecast period, as outlined on page 70. However, it has a fiscal cost in the June 2011 year (eg, social assistance benefits are compensated for the rise in the GST rate)
- underlying tax revenue is weaker in the early part of the forecast period (as previously mentioned), and
- finance costs and some one-off expenditure, including a number of expenses that have been transferred from the current year into next (such as transport spending and Treaty of Waitangi settlements).

By the June 2014 year, operating deficits are expected to fall to $3.0 billion (1.3% of GDP) as a result of a rise in tax revenue (Figure 1.8). Compared to the *Half Year Update*, operating deficits are expected to be smaller, reflecting the stronger economic outlook. The reduction in operating deficits has also flowed through to improvements in the residual cash and net debt position.

Figure 1.8 – Total Crown operating balance before gains and losses



Source: The Treasury

The total Crown operating balance including gains and losses is also in deficit across the forecast period. The deficit is forecast to be smaller when gains and losses are included because Crown financial institutions such as the New Zealand Superannuation (NZS) Fund are forecasting, on average, to make gains over the forecast period.

4 For more details, see page 11 of the *Executive Summary*.

The underlying nature of these deficits can be measured by the cyclically-adjusted, or structural, balance, which gauges how much of the operating balance before gains and losses reflects temporary cyclical factors rather than long-lasting factors. While the cyclically-adjusted deficit is estimated to fall from 4.0% of GDP in the June 2011 year to 1.1% in the June 2014 year, the fact it remains negative means that operating deficits are largely structural.[5]

Table 1.5 – Fiscal forecasts

Year ended 30 June	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
$ billion						
Core Crown revenue	59.5	56.4	60.3	64.5	68.5	72.9
Core Crown expenses	64.0	64.8	70.7	71.5	74.2	77.0
Core Crown operating balance[a]	-4.5	-8.4	-10.4	-7.0	-5.7	-4.2
Total Crown operating balance[a]	-3.9	-6.9	-8.6	-5.4	-4.4	-3.0
Total Crown operating balance incl. gains & losses	-10.5	-3.2	-7.1	-3.6	-2.4	-0.8
Residual cash	-8.6	-9.1	-13.3	-9.7	-7.5	-6.0
Net debt[b]	17.1	26.6	40.0	49.6	57.1	63.0
Gross debt[c]	43.4	53.8	67.0	69.7	71.6	77.8
Net worth	99.5	96.5	89.4	85.8	83.5	82.6
% of GDP						
Core Crown revenue	32.2	29.8	29.6	29.9	30.3	30.7
Core Crown expenses	34.7	34.2	34.7	33.1	32.9	32.4
Core Crown operating balance[a]	-2.5	-4.4	-5.1	-3.2	-2.5	-1.8
Total Crown operating balance[a]	-2.1	-3.7	-4.2	-2.5	-1.9	-1.3
Total Crown operating balance incl. gains & losses	-5.7	-1.7	-3.5	-1.7	-1.1	-0.3
Residual cash	-4.7	-4.8	-6.5	-4.5	-3.3	-2.5
Net debt[b]	9.3	14.1	19.6	23.0	25.3	26.5
Gross debt[c]	23.5	28.4	32.8	32.3	31.7	32.7
Net worth	54.0	50.9	43.9	39.8	37.0	34.8

Notes: a Operating balance before gains and losses

b Net core Crown debt excluding the New Zealand Superannuation Fund and advances

c Gross sovereign-issued debt excluding Reserve Bank bills and settlement cash

A glossary and longer time series for these variables is provided on page 159.

Source: The Treasury

…and cash deficits are met by increased borrowing and higher net debt

Residual cash deficits are expected to continue through the forecast period. The trend is similar to that for operating deficits, peaking in the June 2011 year at $13.3 billion before reducing to $6.0 billion in the June 2014 year. Overall, the cash deficits total $45.6 billion over the next five years.

The Government is expected to spend close to $21.2 billion on capital over the forecast period. The capital spending comprises around $8.7 billion to purchase physical assets primarily so that departments can maintain their current level of assets to deliver services. The Government is also expected to provide loans and capital injections of around $8.9 billion. Just over half of this funding is to State-Owned Enterprises and Crown entities and is generally used to purchase physical assets in the health, education, housing and transport sectors. The rest of the funding primarily relates to student loans.

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[5] For more details, see the *Additional Information* on the Treasury website.

In addition, the Government has set aside $3.6 billion for future new capital spending. The allowance for new capital spending is $1.39 billion for Budgets 2011 to 2014, which is a reduction from the *Half Year Update* owing to a portion transferring to the operating allowance.[6]

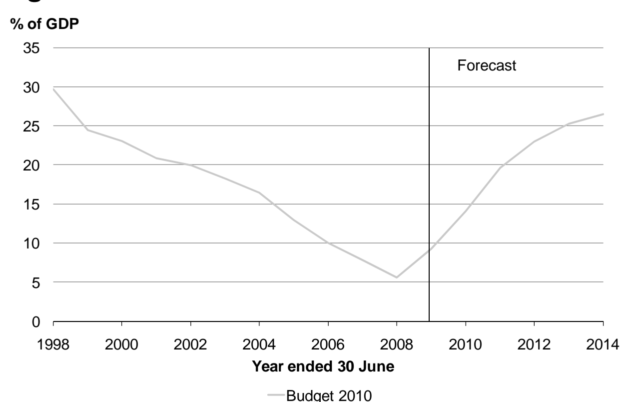
Table 1.6 – Reconciliation from operating balance to residual core Crown cash

Year ending 30 June $billion	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast	5 Year Total
Core Crown revenue	59.5	56.4	60.3	64.5	68.5	72.9	
Core Crown expenses	(64.0)	(64.8)	(70.7)	(71.5)	(74.2)	(77.0)	
Net surpluses/(deficits) of SOEs and CEs and core Crown gains and losses	(6.0)	5.2	3.3	3.4	3.3	3.3	
Operating balance	**(10.5)**	**(3.2)**	**(7.1)**	**(3.6)**	**(2.4)**	**(0.8)**	
Net retained surpluses of SOEs, CEs and NZS Fund	5.7	(5.4)	(3.4)	(3.5)	(3.4)	(3.5)	
Non-cash items and working capital movements	2.8	3.7	2.2	1.5	2.2	2.6	
Net core Crown cash flow from operations	**(2.0)**	**(4.9)**	**(8.3)**	**(5.6)**	**(3.6)**	**(1.7)**	
Contribution to NZS Fund	(2.2)	(0.3)	-	-	-	-	
Net core Crown cash flow from operations after contributions to NZS Fund	**(4.2)**	**(5.2)**	**(8.3)**	**(5.6)**	**(3.6)**	**(1.7)**	**(24.4)**
Purchase of physical assets	(1.6)	(2.1)	(2.3)	(1.7)	(1.4)	(1.2)	**(8.7)**
Advances and capital injections	(2.8)	(1.8)	(2.4)	(1.7)	(1.5)	(1.5)	**(8.9)**
Forecast for future new capital spending	-	-	(0.3)	(0.7)	(1.0)	(1.6)	**(3.6)**
Core Crown residual cash	**(8.6)**	**(9.1)**	**(13.3)**	**(9.7)**	**(7.5)**	**(6.0)**	**(45.6)**

Source: The Treasury

Cash deficits represent the amount the Government has to fund, either by raising debt or reducing financial assets. Over the forecast period as a whole, cash deficits are expected to raise net core Crown debt from $17.1 billion (9.3% of GDP) in the June 2009 year to $63.0 billion (26.5% of GDP) in the June 2014 year (Figure 1.9). This represents a large rise in net debt to its highest share of the economy since 1998. As a proportion of GDP, medium-term projections in the *Fiscal Strategy Report* show that net debt is expected to continue rising to a peak of 27.4% in the June 2015 year as the operating balance returns to surplus the following year. The Government's long-term fiscal objective is for net debt to be brought back to a level no higher than 20% of GDP by the early 2020s, which will ensure New Zealand is well placed to deal with future shocks as well as the spending pressures associated with an ageing population. In the *Fiscal Strategy Report*, the net debt target of 20% of GDP is projected to be achieved in the June 2022 year.

Figure 1.9 – Net core Crown debt



Source: The Treasury

[6] For more details, see page 13 of the *Executive Summary*.

The expected cash shortfall is forecast to be met by additional borrowing and the utilisation of financial assets held by the New Zealand Debt Management Office. The majority of the borrowing requirement will be met through bond issuance in the New Zealand domestic market (Table 1.7). Issuance total $52.2 billion over the forecast period (taking the current year into account), a reduction of $1.5 billion from the previous forecast. After meeting debt maturities, net bond issuances total $33.2 billion (including net non-market issuances to the Earthquake Commission).

Table 1.7 – Net increase in domestic bonds

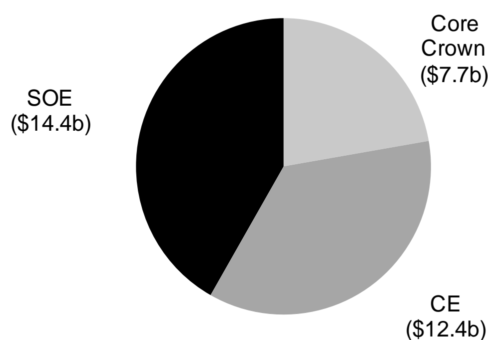
Year ended 30 June $billion	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast	Total
Issue of domestic bonds (market)	12.9	12.8	10.6	10.0	5.9	52.2
Repayment of domestic bonds (market)	(4.2)	-	(7.9)	(7.9)	-	(20.0)
Net increase in domestic bonds (market)	8.7	12.8	2.7	2.1	5.9	32.2
Issue of domestic bonds (non-market)	0.8	0.2	1.0	1.0	0.3	3.3
Repayment of domestic bonds (non-market)	(0.7)	-	(0.8)	(0.8)	-	(2.3)
Net increase in domestic bonds (non-market)	0.1	0.2	0.2	0.2	0.3	1.0
Net bond issuance	**8.8**	**13.0**	**2.9**	**2.3**	**6.2**	**33.2**

Source: The Treasury

Net worth declines because of continued operating deficits

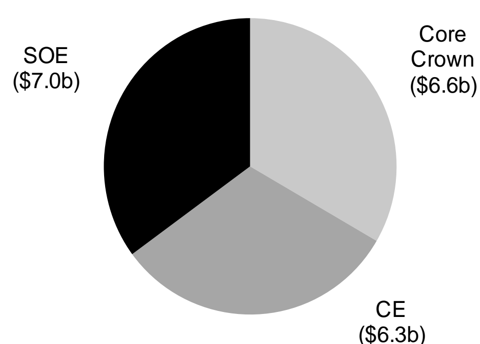
Net worth is forecast to fall from $99.5 billion (54.0% of GDP) in the June 2009 year to $82.6 billion (34.8% of GDP) in the June 2014 year. The fall reflects the flow-on impact to assets and liabilities from the operating deficits expected over the forecast period. Although net worth declines, the Government is still expected to increase total assets by around $32 billion over the forecast period. As part of the overall increase in assets, the Government's holding of physical assets is expected to increase by around $13.9 billion. Overall, the Government is expected to buy around $34.2 billion and sell about $0.9 billion of physical assets over the next five years. The value of physical assets is expected to decline owing to depreciation by around $19.9 billion by the June 2014 year. A breakdown of net additions and depreciation by segment is shown in Figures 1.10 and 1.11. Generally, the increase in core Crown and Crown entities' physical assets is funded from either capital injections or operating funding provided from the Crown. The increase in SOEs' physical assets is expected to be driven by utilisation of operating surpluses or by raising debt. In addition, the forecasts set aside around $3.6 billion in funding for future capital investments over the forecast period.

Figure 1.10 – Net additions of physical assets over 5 years



Source: The Treasury

Figure 1.11 – Depreciation of physical assets over 5 years



Source: The Treasury

Risks and Scenarios

Economic and fiscal forecasts always involve a significant amount of uncertainty. The first part of this section outlines the key risks to the outlook and the second part shows how some of the most significant risks could play out in two plausible alternative scenarios.

Economic Risks

Key risks continue to surround the global economy...

The extreme risks to the outlook have eased significantly since early 2009, when financial markets and the world economy had yet to trough after the global financial crisis. Financial markets have since recovered and the world economy has begun to recover. This recovery could prove to be stronger than incorporated in the main forecasts. A stronger recovery may occur if emerging economies, especially in Asia, maintain supportive monetary policy. Faster progress in restoring financial sector strength and rebuilding firm and household balance sheets, as asset prices recover, would lead to a quicker pace of recovery, assisted by higher credit growth. An earlier return of business and consumer confidence could also provide greater support to investment and consumption.

However, significant downside risks remain. In developed economies, these include: sovereign-debt issues emerging in parts of the Euro area, which have reached crisis levels in Greece and could worsen significantly and spread to other countries; private demand may fail to take over once public stimulus and stock rebuilding ends; credit may remain constrained; households and firms may undergo a more drastic deleveraging; and continuing weak housing and labour markets could slow the recovery in consumer spending. The probability of these risks occurring may be low, but any one of them could trigger lower growth in the world economy. At an extreme, the impact from the next shock could be larger than after the global financial crisis because the world economy is less well positioned now than it was beforehand.

...and commodity prices, drought and the impact of tax reform

The world spot price for New Zealand's commodity basket as a whole has risen substantially. Given this increase has been shared across a wider range of products than the previous peak in 2008, it may be less subject to correction. Nevertheless, there are still risks to export commodity prices. Upside risks are mainly around growing demand for commodities in emerging markets. Downside risks include a larger consumer reaction to high prices, if current high prices are only a reflection of temporary factors, or if commodity demand from China is not sustainable.

One of the temporary factors supporting dairy prices is recent drought conditions in New Zealand. Drought will likely lower agricultural production, particularly for dairy, and there is a risk this impact is larger than anticipated in the main forecasts.

The recovery in New Zealand is also subject to risks. Current high confidence levels could be signalling a stronger recovery, while recent weakness in actual consumer spending and in the housing market could portend a more subdued upturn. Once recovery is underway, there are also risks surrounding the rate of potential growth

New Zealand can realistically achieve given the weakening of productivity growth over the 2000s. Recent cyclical volatility and policy changes have created additional uncertainty about longer-term trends.

As discussed on page 61, imbalances built up in the economy over the 2000s. An abrupt adjustment is possible if foreign investors react to a higher forecast current account deficit, triggering a sharp fall in the exchange rate, or if households curtail spending more sharply in the face of rising interest rates. House and farm prices are another source of risk. These asset prices remain very high, and the leverage built upon earlier price rises has not been unwound to any significant extent.

The introduction of the tax package also adds a degree of uncertainty not present a year ago, with the potential for significant changes in the behaviour of firms and households. A stronger or weaker than forecast growth response to the tax package could also contribute to the upside and downside scenarios.

Upside Scenario

The upside scenario outlined below incorporates a stronger economic recovery led by a faster domestic upturn. This scenario would be consistent with the tendency of recoveries to be strong and the tendency of forecasters to under-predict their strength.

The domestic economy could recover more strongly than in the main forecasts...

In the upside scenario, the economy rebounds more strongly than in the main forecast, led by higher domestic demand. In line with high levels of confidence in early 2010, consumer spending and both business and residential investment recover faster than in the main forecast. The labour market has already strengthened more quickly than expected in these forecasts. The economy is also assumed to be supported by slightly stronger growth in our trading partners, which would benefit from the same confidence-led recovery as New Zealand in this scenario. Stronger trading partner growth would provide more support for non-commodity export goods and service exports.

Economic growth in this scenario rebounds more quickly than in the main forecasts to 4.5% and 3.2% in the 2011 and 2012 March years respectively. Such growth would be expected to lower the unemployment rate more quickly to 4.8% in the March 2012 quarter, compared to 5.5% in the main forecasts. The larger-than-expected fall in unemployment in the March 2010 quarter provides support to this scenario. A key aspect of the upside scenario is that inflation is also likely to be higher than in the main forecasts as a result of stronger domestic demand. There may also be a greater impact on prices from policy changes than assumed in the main forecasts; for example, if inflation expectations are affected to a greater extent. Annual CPI inflation is 6.5% at March 2011 and 3.5% a year later in this scenario compared to 5.9% and 2.4% respectively in the main forecasts.

The nominal economy is larger in the upside scenario because of stronger real activity and higher inflation. Compared to the main forecasts, nominal GDP over the 2010 to 2014 June years is around $22 billion (2%) higher. The larger nominal economy results in higher tax revenue relative to the main forecast, reflecting higher personal and corporate income taxes owing to higher incomes, more GST results from stronger domestic demand and a larger increase in tax on interest income as interest rates rise by more.

Table 1.8 – Key economic and fiscal features of the upside scenario

(Annual average % change, Year ended 31 March)	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
Real GDP components:						
Private consumption	-1.1	0.6	3.8	2.0	1.9	1.9
Residential investment	-22.8	-9.9	23.2	12.8	6.5	3.2
Market investment	-1.9	-10.2	12.0	10.0	1.4	1.2
Gross national expenditure	-1.6	-3.2	7.2	4.5	2.4	1.7
Exports of goods and services	-3.4	2.8	2.4	6.2	3.7	2.7
Imports of goods and services	-4.7	-9.9	10.8	10.7	4.1	0.5
GDP (production measure)	**-1.4**	**-0.2**	**4.5**	**3.2**	**2.5**	**2.5**
Unemployment rate[1]	5.0	7.1	5.8	4.8	4.6	4.4
90-day bank bill rate[2]	3.7	2.7	4.3	5.4	6.1	6.4
TWI[2]	53.7	65.3	65.9	64.0	58.6	53.8
CPI[3]	3.0	2.2	6.5	3.5	2.9	2.7
Current account balance (% GDP)	-7.9	-2.6	-4.4	-6.1	-7.3	-7.5
Nominal GDP level (deviation from main forecast, $billion)	0.0	0.1	3.0	5.6	5.9	5.7
(% of GDP, Year ended 30 June)						
Operating balance before gains and losses	-2.1	-3.6	-3.7	-1.7	-1.2	-0.5
Net core Crown debt	9.3	14.0	18.8	21.3	22.9	23.5

Notes: 1 Percent of labour force, March quarter, seasonally adjusted
2 Average for March quarter, actual for 2010
3 Annual percentage change, March quarter

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

…but not by enough to return operating balances to surplus in the forecast horizon

Government expenses are only slightly lower than in the main forecasts. While there are fewer people on the unemployment benefit in this scenario, higher inflation adjustments for benefits and the impact of higher inflation and wage growth on superannuation payments would see overall benefit payments rise. This is offset by lower debt-servicing costs as a result of lower debt levels.

With higher tax revenue, the operating deficit would be slightly smaller than in the main forecast at 3.7% in the June 2011 year and would fall more quickly over the following three years. With smaller deficits in the upside scenario, net core Crown debt would be expected to rise by less than in the main forecasts, rising to a peak of 23.5% in the June 2014 year. However, operating deficits remain over the forecast period in this scenario and net debt continues to rise, despite the stronger economic recovery.

Downside Scenario

The downside scenario centres on risks to the global recovery. It considers a more subdued recovery in the world and domestic economy as a result of lingering impacts from the global financial crisis on, for example, confidence and credit availability.

Table 1.9 – Key economic and fiscal features of the downside scenario

(Annual average % change, Year ended 31 March)	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
Real GDP components:						
Private consumption	-1.1	0.6	2.5	0.7	2.1	2.2
Residential investment	-22.8	-9.9	21.2	10.4	7.6	5.9
Market investment	-1.9	-10.4	4.2	3.9	7.2	5.5
Gross national expenditure	-1.6	-3.3	5.0	2.4	3.4	2.7
Exports of goods and services	-3.4	2.8	1.2	4.0	3.3	3.9
Imports of goods and services	-4.7	-9.9	8.1	5.8	4.2	2.0
GDP (production measure)	**-1.4**	**-0.3**	**2.8**	**2.0**	**3.3**	**3.4**
Unemployment rate[1]	5.0	7.1	6.3	6.2	5.8	5.0
90-day bank bill rate[2]	3.7	2.7	4.3	4.6	5.0	5.6
TWI[2]	53.7	65.3	63.8	61.1	55.9	51.6
CPI[3]	3.0	2.2	5.8	1.9	2.0	2.3
Current account balance (% GDP)	-7.9	-2.6	-4.5	-6.4	-7.3	-7.9
Nominal GDP level (deviation from main forecast, $billion)	0.0	0.0	-1.1	-5.4	-7.0	-7.0
(% of GDP, Year ended 30 June)						
Operating balance before gains and losses	-2.1	-3.7	-4.4	-3.3	-3.0	-2.3
Net core Crown debt	9.3	14.1	20.0	24.6	27.9	30.1

Notes: 1 Percent of labour force, March quarter, seasonally adjusted

2 Average for March quarter, actual for 2010

3 Annual percentage change, March quarter

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

A weaker global economy would impact on New Zealand's trade and earnings...

In the downside scenario, recent signs of a rebound in world growth prove to be premature as renewed weakness takes hold in late 2010. Trading partner growth is assumed to be 2.8% in 2010 and 3.0% in 2011 compared to 3.7% in each year in the main forecasts. The level of GDP in our trading partners is around 2% lower at the end of the forecast period compared to the main forecasts. A number of factors could drive such a downside scenario, including the economic risks discussed above. For example, an escalation and spread of the sovereign-debt crisis in Greece would require significant adjustment by the economies directly affected and knock-on effects for others, or unanticipated shocks could slow growth in emerging Asia. It is important to note that, although significant, this downside scenario as modelled is not on the scale of the global financial crisis.

The main effect of the downside scenario on the New Zealand economy is lower terms of trade. Weaker global demand is assumed to flow through to significantly lower prices for New Zealand's exports compared to the main forecast. This reduces incomes in the domestic economy and hampers the recovery in New Zealand. A tightening of global credit conditions also contributes to a more subdued upturn by raising the cost of credit and reducing domestic investment. Lower confidence and weaker credit growth lead to a fall in house prices in real terms of more than 7% in the year to March 2011.

The largest impact on the New Zealand economy is felt in the March 2012 year when growth eases again to 2.0%, down from 2.8% in the March 2011 year. Economic growth is slightly higher in the subsequent two years as interest rates are lowered, the exchange rate declines more rapidly and world growth recovers slightly. Nevertheless, the unemployment rate would be expected to remain above 6% for an extra 5 quarters compared with the main forecasts. A combination of weaker terms of trade, weaker real activity and subdued inflation results in lower nominal GDP compared to the main forecast. Under the downside scenario, the level of nominal GDP is predicted to be around $22 billion (2%) lower than in the main forecast over the 2010 to 2014 fiscal years.

…and lower tax revenue while raising operating deficits and net debt

Tax revenue is lower in the downside scenario than in the main forecasts because weaker incomes and domestic demand flow through to income tax and GST revenue. More people would receive benefits in the downside scenario, but the adjustments to benefit rates because of inflation would be lower. The operating deficit under the downside scenario in the June 2011 year is 4.4% of GDP and declines more slowly to 2.3% of GDP by 2014. Larger deficits relative to the main predictions mean borrowing would be higher under the downside scenario and would result in net debt peaking at around 30% of GDP by the June 2014 year. Such a scenario illustrates an outlook similar to that in Budget 2009. Those forecasts, made near the trough of the world economic downturn, foresaw a rise in projected net core Crown debt to around 30% of GDP in the June 2013 year.

Fiscal Sensitivities

The scenarios set out alternative paths for the fiscal position based on plausible economic drivers. In contrast, Table 1.10 provides some "rules of thumb" on the sensitivities of the fiscal position to changes in specific variables without identifying the drivers of change.

Table 1.10 – Fiscal sensitivity analysis

Year ended 30 June ($ million)	2010 Forecast	2011 Forecast	2012 Forecast	2013 Forecast	2014 Forecast
1% lower nominal GDP growth per annum on					
Tax revenue	(525)	(1,090)	(1,750)	(2,465)	(3,255)
Revenue impact of a 1% decrease in growth of					
Wages and salaries	(255)	(460)	(710)	(1,005)	(1,350)
Taxable business profits	(125)	(265)	(415)	(575)	(745)
One percentage point lower interest rates					
Interest income	(42)	(158)	(118)	(89)	(24)
Expenses	(33)	(253)	(371)	(470)	(538)
Impact of interest rates on the operating balance	**(9)**	**95**	**253**	**381**	**514**

Source: The Treasury

Finalisation Dates and Assumptions for the Forecasts

Economic and fiscal forecasts – finalisation dates	
Economic forecasts	16 April
Tax revenue forecasts	23 April
Fiscal forecasts	4 May
Text finalised	11 May

Economic Forecast Assumptions

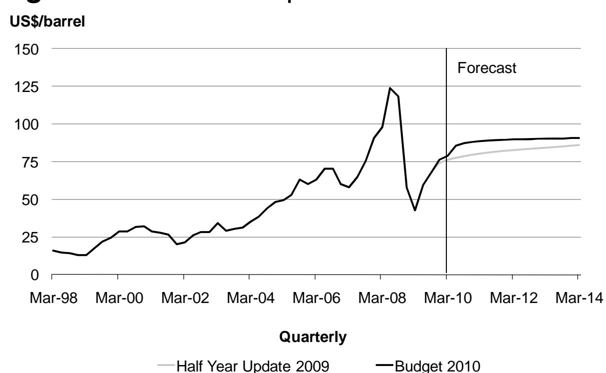
Policy – The tax reform package in Budget 2010 has a significant impact on the economy over the forecast period. Details of this impact are in a separate box on pages 68 to 70. Of other policy changes, the Emissions Trading Scheme (ETS) is assumed to raise the Consumers Price Index (CPI) by about 0.4% in the June 2011 year as the ETS impacts on the price of stationary energy (eg, coal, gas and geothermal) and fuel prices, with a further impact of about 0.4% in the 2013 calendar year as the transition phase ends. A further impact on the CPI is expected from higher ACC levies on motorists estimated at 0.1% in the September 2010 quarter.

Trading partner growth – The global outlook has continued to be revised upwards. After an estimated contraction of 0.9% in 2009, the economies of New Zealand's top-12 trading partners are expected to grow 3.7% in each of 2010 and 2011 before averaging 3.5% per annum in the final three years of the forecast period. These are slightly higher in the near term than growth rates in *Consensus Forecasts* for April 2010.

Global inflation and interest rates – Inflation declined dramatically in 2009 from the previous year in most economies. The outlook is for global inflation to rise as the recovery in the world economy progresses. In this inflation environment, interest rates are expected to be gradually normalised over the forecast period.

Oil prices – The average price of West Texas Intermediate (WTI) oil on a quarterly basis rose to US$79/barrel in the March 2010 quarter. Based on the average futures prices for WTI oil in early April 2010, the price of oil is assumed to rise to around US$91/barrel by the end of the forecast period. At this point, the oil price assumption is approximately 5% above that assumed in the *Half Year Update*.

Figure 1.12 – WTI oil prices



Sources: Datastream, the Treasury

Terms of trade – The merchandise terms of trade, as measured in the System of National Accounts (SNA), are estimated to rise over the forecast period to be around 10% higher in the June 2014 quarter than in the December 2009 quarter. This is around 2% higher than in the *Half Year Update 2009*.

Monetary conditions – The New Zealand dollar exchange rate is assumed to remain at its March 2010 quarter level of 65.3 on the Trade Weighted Index (TWI) throughout 2010. The TWI is then assumed to depreciate gradually from early 2011 to 53.2 at the end of the forecast period. Ninety-day interest rates are expected to rise to 3.3% in the September quarter of 2010 and 4.8% a year later and continue to increase to 5.8% by the end of the forecast period.

External migration – The net inflow of permanent and long-term migrants is assumed to decrease to 10,000 per annum by early 2012, down from 21,000 in the year to March 2010.

Fiscal Forecast Assumptions

The fiscal forecasts are based on assumptions and judgements developed from the best information available on 4 May 2010, when the forecasts were finalised. Actual events are likely to differ from some of these assumptions and judgements. Furthermore, uncertainty around the forecast assumptions and judgements increases over the forecast period. Significant tax reform in Budget 2010 adds additional uncertainty to the economic and fiscal forecasts.

The fiscal forecasts are prepared on the basis of underlying economic forecasts. Such forecasts are critical for determining revenue and expense estimates. For example:

- A nominal GDP forecast is needed in order to forecast tax revenue.
- A forecast of CPI inflation is needed because social assistance benefits are generally indexed to inflation.
- An unemployment forecast is needed to underpin the projected number of Unemployment Benefit recipients.
- Forecasts of interest rates are needed to forecast finance costs, interest income and discount rates.

A summary of the key economic forecasts that are particularly relevant to the fiscal forecasts is provided in the table below (on a June-year-end basis to align with the Government's balance date).

Table 1.11 – Summary of key economic forecasts used in fiscal forecasts

	2009/10		2010/11	2011/12	2012/13	2013/14
June years	**Half Year Forecasts**	**Budget Forecasts**	**Budget Forecasts**	**Budget Forecasts**	**Budget Forecasts**	**Budget Forecasts**
Real GDP (P) (ann avg % chg)	0.7	0.9	3.3	3.1	2.9	3.1
Nominal GDP (E) ($m)	184,466	189,526	203,876	215,722	225,820	237,609
CPI (annual avg % change)	2.1	2.1	4.8	3.1	2.4	2.5
Govt 10-year bonds (ann avg %)	5.8	5.9	5.9	5.9	5.9	6.0
5-year bonds (ann avg %)	5.0	5.1	5.5	5.7	5.8	5.9
90-day bill rate (ann avg %)	2.9	2.8	3.9	5.1	5.4	5.6
Unemployment rate (ann avg %)	6.9	7.0	6.4	5.6	5.1	4.6
Employment (ann avg % change)	-1.9	-1.7	0.9	2.1	2.0	2.1
Current account (% of GDP)	-3.6	-3.2	-5.0	-6.3	-7.1	-7.2

In addition there are also a number of other key assumptions that are critical in the preparation of the fiscal forecasts.

<table>
<tr><td>Government decisions</td><td>Incorporate government decisions up to 4 May 2010.</td></tr>
<tr><td>Tax package</td><td>Estimated second-round macroeconomic effects of the tax package have been incorporated into the tax, benefit and debt servicing forecasts. There is uncertainty associated with the full impact of the policy changes on the fiscal position, so there is a risk there could be additional impacts not captured in the fiscal forecasts.</td></tr>
<tr><td>Operating allowance</td><td>Net $1.1 billion in 2010/11, growing by the rate of 2% per annum for subsequent Budgets.</td></tr>
<tr><td>Capital allowance</td><td>$1.39 billion in Budget 2011, 2012, 2013 and 2014 allocated as follows over the forecast period:
<table>
<tr><th>$billions</th><th>09/10</th><th>10/11</th><th>11/12</th><th>12/13</th><th>13/14</th></tr>
<tr><td>Contingency</td><td>-</td><td>0.12</td><td>0.02</td><td>-</td><td>0.33</td></tr>
<tr><td>Budget 11</td><td>-</td><td>0.16</td><td>0.56</td><td>0.30</td><td>0.26</td></tr>
<tr><td>Budget 12</td><td>-</td><td>-</td><td>0.16</td><td>0.56</td><td>0.30</td></tr>
<tr><td>Budget 13</td><td>-</td><td></td><td>-</td><td>0.16</td><td>0.56</td></tr>
<tr><td>Budget 14</td><td>-</td><td></td><td></td><td>-</td><td>0.16</td></tr>
<tr><td>Total</td><td>-</td><td>0.28</td><td>0.74</td><td>1.02</td><td>1.61</td></tr>
</table>
</td></tr>
<tr><td>Investment rate of returns</td><td>Incorporate the actual results to 28 February 2010. Beyond the June 2010 year, gains on financial instruments are based on long-term benchmark rate of returns for each portfolio.</td></tr>
<tr><td>Finance cost on new bond issuances</td><td>Based on 5-year rate from the central economic forecasts and adjusted for differing maturity.</td></tr>
<tr><td>Top-down adjustment</td><td>Top-down adjustment to operating and capital as follows:
<table>
<tr><th>$billions</th><th>09/10</th><th>10/11</th><th>11/12</th><th>12/13</th><th>13/14</th></tr>
<tr><td>Operating</td><td>0.46</td><td>0.41</td><td>0.06</td><td>0.06</td><td>0.06</td></tr>
<tr><td>Capital</td><td>0.13</td><td>0.30</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total</td><td>0.59</td><td>0.71</td><td>0.06</td><td>0.06</td><td>0.06</td></tr>
</table>
</td></tr>
<tr><td>Borrowing requirements</td><td>The forecast cash deficits will be met by reducing financial assets and issuing debt.</td></tr>
<tr><td>Property, plant and equipment</td><td>For the purposes of the forecast financial statements, no revaluations of property, plant and equipment are projected beyond the current year. Valuations as recorded for the 2009 annual financial statements and any additional valuations that have occurred up to 28 February 2010 are included in these forecasts. A number of revaluation exercises are currently underway and are planned to be completed in time for the 2010 annual financial statements (published in early October). The results of these valuations are, therefore, not reported in these forecast financial statements.</td></tr>
</table>

Student loans	The carrying value of student loans is based on a valuation model adapted to reflect current student loans policy. As such, the carrying value over the forecast period is sensitive to changes in a number of underlying assumptions, including future income levels, repayment behaviour and macroeconomic factors such as inflation and discount rates used to determine the effective interest rate for new borrowers. Any change in these assumptions would affect the present fiscal forecast.
Government Superannuation Fund and ACC liabilities	The Government Superannuation Fund and ACC liabilities included in these forecasts have been valued as at 28 February 2010 and 31 December 2009 respectively, with the ACC valuation being adjusted for the 31 March 2010 discount rate. Both liabilities are valued by projecting future cash payments, and discounting them to present value. These valuations rely on historical data to predict future trends and use economic assumptions such as inflation and discount rates. Any change in actual payments or economic assumptions would affect the present fiscal forecast. For example, if the discount rate decreases, the value of the liabilities would increase. The Government Superannuation Fund's assets are offset against the gross liability and have been updated to reflect market values at 28 February 2010. The value of assets over the forecast period reflects long-run rate of return assumptions appropriate to the forecast portfolio mix.
Emissions Trading Scheme (ETS)	The forecasts have been prepared in accordance with current government ETS policies and the effects of these policies over commitment period 1 (CP1) (2008 to 2012). Details of current climate change policies are listed at: www.mfe.govt.nz/issues/climate/policies-initiatives The carbon price assumption is constant at €10.75 with an exchange rate of 0.5298 (a carbon price of NZ$20.29). The forecast assumes a 67% uptake of post-1989 foresters into the ETS over CP1. Beyond 2012, ETS net revenues have been modelled as neutral (revenues equal expenses), as New Zealand currently has no international commitments beyond this period. Net revenue (the value of credits received after free allocation of credits to participating industries and after meeting future emissions liabilities) is assumed to be recycled back to the public through fiscally equivalent, unspecified tax reductions or spending increases.
Kyoto position	The Kyoto position included in fiscal forecasts reflects the Government's obligation for CP1, which is for the period 2008 to 2012. Base case projections beyond 2012 do not incorporate a quantitative estimate of any net emissions position that may eventuate from New Zealand's obligations under future international climate change agreements.
NZS Fund contributions	A $250 million contribution in 2009/10 and no contribution is assumed in the forecast period beyond the 2010 fiscal year.