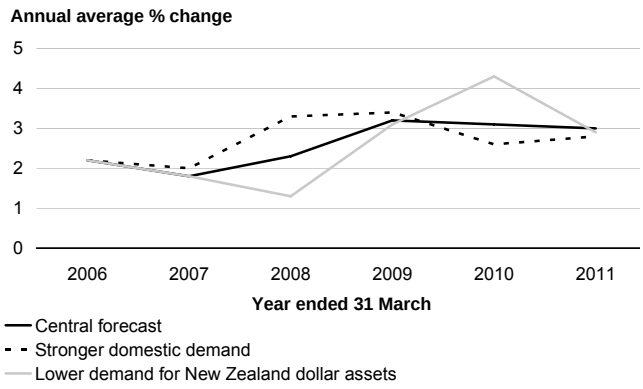
3

Risks and Scenarios

Summary

- The central forecast presented in the *Economic and Tax Outlook* chapter shows an economy experiencing relatively weak growth over 2007 and 2008 before recovering in the year to March 2009. Relatively weak domestic demand growth contributes to the unwinding of imbalances, such as inflationary pressures and a large current account deficit, in a fairly orderly and timely manner. However, the exact path taken by the economy is dependent on how a number of different factors evolve.

Figure 3.1 – Real GDP



Source: The Treasury

- Some of the major risks discussed below are key judgements in the forecasts and include households' ability and willingness to accumulate debt, the path taken by the exchange rate, the reaction of businesses to tighter trading conditions and the extent to which productivity growth rebounds. These factors will influence the extent to which inflationary pressures and a high current account deficit unwind.
- Although we believe the central forecast presented in the *Economic and Tax Outlook* chapter to be the most likely outcome, two scenarios that illustrate alternative paths are presented. These scenarios are just two of a number of possible outcomes and therefore do not fully illustrate the range of possible outcomes.
- The first scenario illustrates the impact of household expenditure and investment not slowing to the same degree as in the central forecast. In this scenario there is an increase in household indebtedness relative to the central forecasts. Stronger domestic demand generates higher real and nominal gross domestic product (GDP) but limits the extent to which inflation pressures abate and the current account deficit reduces. The second scenario reflects an environment in which there is less demand for New Zealand dollar assets leading to a faster fall in the exchange rate. The uncertainty implied by this, together with higher interest rates, reduces households' appetite for further accumulation of debt and consequently results in lower household spending.

Introduction

The central forecast presented in the *Economic and Tax Outlook* chapter incorporates a number of key judgements about how various forces affecting the economy will evolve. These judgements reflect the balancing of both upside and downside risks potentially facing the economy to arrive at our best assessment of the way the economy is likely to develop. Some of these judgements are related to the cyclical drivers of activity and some relate to the structural characteristics of the economy. If actual events differ from these judgements then the path taken by the economy is likely to deviate from the central forecast.

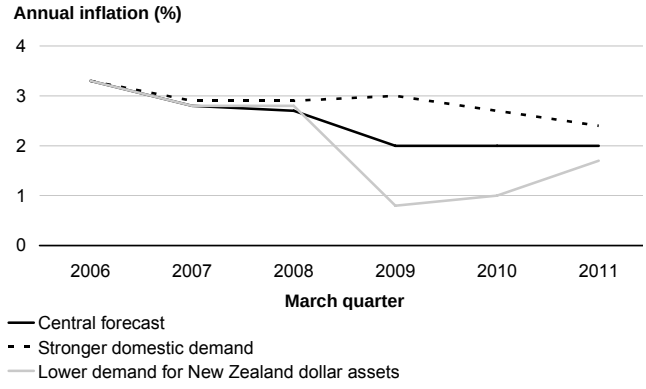
The first part of this chapter, Economic Risks, outlines some of the risks around the economic outlook. There are both upside and downside risks – some domestically and some internationally oriented. The second part of this chapter, Economic Scenarios, presents in more detail two scenarios that could occur if a different set of events were to occur. The third part of this chapter, Fiscal Scenarios, considers the implications of the two economic scenarios on the fiscal position.

Economic Risks

There is uncertainty around the exact manner and timing of an unwinding of imbalances currently present in the economy

A period of strong economic growth in recent years has seen the emergence of macroeconomic imbalances – a rise in inflation pressures and a large current account deficit. Strong domestic demand growth has contributed to high levels of import demand, while exporters have struggled owing to the exchange rate remaining at a high level. This has led to an increase in the current account deficit to 9.7% of GDP.

Figure 3.2 – CPI inflation



Source: The Treasury

The central forecast track sees these imbalances unwind in a fairly orderly and timely manner, helped by a sustained period of below average growth and a reorientation of the drivers of growth. However, there is a risk that imbalances may persist for longer. This is particularly so if domestic demand was to exhibit stronger growth than is incorporated in the central forecast. Higher domestic demand, particularly if concentrated in areas such as construction, may intensify capacity constraints and lead to further inflationary pressure. In addition, higher demand is likely to be partly met from imports and hence limit the magnitude of any reduction in the current account deficit.

The behaviour of households is a key factor influencing domestic demand. Implicit in the central forecast is the judgement that the continued accumulation of debt by households will act as a constraint on future private consumption growth. The ratio of debt to household income is at a record high level and, despite a forecast slowing in consumption growth, this ratio is expected to continue to increase over the forecast period. A key uncertainty in the economic outlook is around households' willingness to continue to expand debt further and the

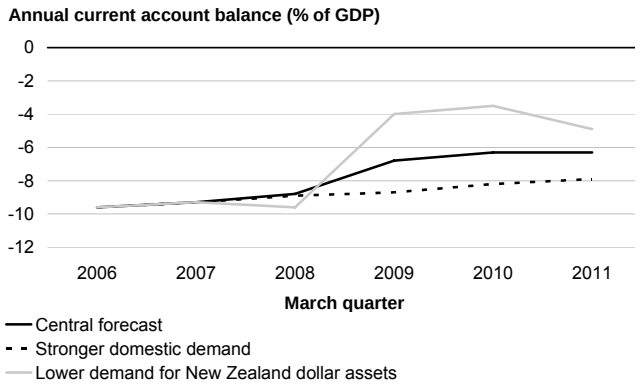
impact of higher debt servicing costs. Should the debt constraint not impinge as strongly on the spending decisions of households then there is the potential for upside risk to household spending on consumption items and residential investment. Alternatively, a more substantial attempt by households at debt consolidation would pose downside risk. A scenario in which higher domestic demand contributes to more intense inflationary pressures, as consumers continue to be willing to accumulate debt at a rate faster than incorporated in the central track, is examined later in this chapter.

Exchange rate developments are important but notoriously difficult to predict

The expected depreciation of the exchange rate in the central forecast track is predicted to play an important role in the reorientation of the economy's growth profile by reducing demand for imported goods and services while assisting the competitiveness of our exports. There is a risk that the recent strength in the exchange rate may persist for longer than is incorporated in the central track. A higher exchange rate would act to constrain export growth while making imports relatively cheaper. The net effect would be that the current account deficit could remain more persistent over the shorter term. Such a situation could arise if inflationary pressures were to remain elevated for some time with these pressures being regarded as sufficient to require tighter monetary policy, either through an increase in interest rates or for rates to remain at existing levels for longer. Under such circumstances, if financial market participants continued to focus on relative yield and providing that investor sentiment around the prospects for the New Zealand economy was not unduly dented, then the exchange rate may display a higher profile relative to the central forecast.

Countries running sustained high current account deficits are exposed to the risk of a sharp change in investor sentiment. Such an event, often called a "sudden stop", could lead to an abrupt current account adjustment as access to offshore capital is reduced and the costs associated with obtaining such capital incorporate a much higher risk premium. Household consumption and residential investment behaviour would be particularly affected given their reliance on debt to finance much of the recent growth in such expenditure.

Figure 3.3 – Current account



Source: The Treasury

Research presented at the Macroeconomic Policy Forum in June concluded that the probability of New Zealand facing an abrupt current account reversal of 3% of GDP has increased to around 20%, while the probability of a larger 5% abrupt reversal has increased with the rising current account deficit to around 5%.[5] Such results were considered by the author as suggesting that current external balances should not be a cause for great concern. The Government's strong fiscal position has been considered an important offsetting factor in maintaining the country's current credit rating. Combined with a strong banking system and

[5] See Edwards, Sebastian (2006), "External imbalances in New Zealand", published in *Testing stabilisation policy limits in a small open economy: proceedings from a macroeconomic policy forum*. The paper's discussant, William Cline, was not convinced that when adjustment comes it will be benign.

a floating exchange rate, this means that concerns around the current account need to be kept in perspective.

While we regard the probability of a "sudden stop" scenario occurring as being low, a second scenario examines the impact of a reduction in demand for New Zealand dollar assets leading to a more rapid exchange rate depreciation and increased uncertainty for New Zealand households.

Productivity developments are an important driver of growth

An unobserved but important consideration in any set of economic forecasts is the rate of potential growth possible in an economy. Potential growth refers to the underlying growth potential of an economy, with growth at such levels consistent with keeping inflationary pressures and capacity issues in check. An important component determining an economy's potential growth rate is productivity growth. Implicit in the central forecast's return to higher levels of growth is an improvement in the recent weak levels of aggregate labour productivity growth. In the absence of such an improvement, growth may fall short of the central forecast. Alternatively, if potential growth has lifted then a recovery to higher levels of growth may be possible while at the same time keeping inflationary pressures in check.

The rate of population growth is another factor influencing both an economy's rate of potential growth as well as consumption and housing demand. Net migration flows have an important influence on New Zealand's population growth. Net migration flows are assumed to add around 14,000 people to New Zealand's population during the year to March 2007, with the contribution expected to decline to around 10,000 a year by the end of the forecast period. However, migration flows are volatile and a significant positive deviation from this assumption would pose upside risk to economic growth. Conversely, if an increase in departures from New Zealand was to significantly lower the contribution of net migration to population growth, then domestic demand and economic growth would likely be lower than incorporated in the central forecast track.

A different response by firms to an expected period of weak growth would pose risks for the employment and investment outlook

With near-term growth expected to be relatively modest, the reactions of firms to falling profits in an environment where costs, including labour, continue to increase will be important. There are some indications that recent tight labour market conditions may have resulted in firms deciding to hoard labour in anticipation of better economic conditions in the future. However, the extent that firms continue to hoard labour is uncertain, with a greater degree of labour shedding certainly possible. This would contribute to increasing unemployment and have negative consequences for household incomes and spending behaviour. Recent improvements in business confidence suggest that the risks around firm behaviour are not all negative. Improved business sentiment poses the risk that firms may continue to keep employment at recent high levels. Improved confidence may also provide upside risk to investment spending.

External developments remain important and are a potential source of risk

As a small open economy, developments in overseas markets can have important implications for New Zealand. The performance of overseas economies affects the demand for our exports and also influences the prices we receive for these exports as well as the

price paid for imports. Such price movements can have important income implications for key sectors of the economy, such as agriculture. Stronger world growth would pose upside risk to the central forecast in terms of the level of demand for New Zealand's exports and the price received for these products.

In addition to the world outlook for growth, other international events can cause fluctuations in prices for important commodities such as oil. Recent geo-political tensions in the middle-East were one factor in oil prices reaching US$77/barrel in July and August this year. Oil price developments have played an important role in the increase in petrol prices and therefore inflation. The decline of oil and petrol prices, particularly in the month of September, will play an important role in the inflation profile over the next few quarters. A sharp upswing in oil prices would put the recent easing in headline inflation at risk, while continued falls may see headline inflation pressures easing more rapidly than expected.

Other, largely non-economic, events could have large economic effects if they were to occur

Climatic conditions are an important influence on agriculture-related production in New Zealand. Extreme conditions, particularly drought, can therefore have significant negative impacts on production levels. According to the National Institute of Water and Atmospheric Research (NIWA), a moderate El Niño event is occurring in the tropical Pacific which will influence New Zealand's climate through to the end of the 2006/07 summer. Temperatures are expected to be average or below average in all regions while rainfall is expected to be normal or below normal in all regions, except the west of the South Island where above normal rainfall is expected. Such conditions would suggest that large-scale drought conditions are unlikely.

The occurrence of an influenza pandemic associated with the spread of a highly pathogenic strain of avian influenza would have important implications for the world economy. Even if such an outbreak were not to reach New Zealand shores, it would likely have considerable impact on international travel, tourism and trade in services.

With agricultural exports representing a large component of New Zealand's exports, the outbreak of serious agricultural diseases, including foot and mouth disease and BSE, on these shores would have major economic implications. However, outbreaks of such diseases in other countries can provide opportunities for competing countries such as New Zealand, with good animal health reputations, to gain market share in foreign markets. In addition, lower production in affected countries limits supply on world markets, contributing to upward pressure on world prices. For example, the occurrence of BSE in North America during 2003 has been positive for New Zealand beef exports into Asia and also a factor in keeping beef prices relatively high.

Concern around climate change has led to a focus on the distance travelled by goods imported into Europe. While "food mile" taxes look unlikely, the imposition of such taxes in the future, or a shift in overseas consumer sentiment against New Zealand products, could have a significant adverse impact on our export levels.

Economic Scenarios

The following scenarios present two possible growth paths for the economy when some of the key judgements underlying the central forecast are altered. In the first scenario, labelled "Stronger domestic demand", stronger consumption and residential investment growth raises real GDP growth in the near term but also increases inflationary pressures and prevents a timelier current account adjustment. The second scenario is labelled "Lower demand for New Zealand dollar assets". Lower demand for New Zealand dollar assets leads to a depreciation of the exchange rate while at the same time increased uncertainty and higher near-term interest rates make households more nervous about high levels of debt. The scenarios are two of a large number of possible examples, and do not represent upper or lower bounds for the central forecast, with more extreme paths possible.

Table 3.1 – Alternative scenarios: summary

	2006 Actual	2007 Forecast	2008 Forecast	2009 Forecast	2010 Forecast	2011 Forecast
Production GDP (annual average % change, year ending 31 March)						
Central forecast	2.2	1.8	2.3	3.2	3.1	3.0
Stronger domestic demand	2.2	2.0	3.3	3.4	2.6	2.8
Lower demand for NZ dollar assets	2.2	1.8	1.3	3.1	4.3	2.9
Nominal Expenditure GDP (annual average % change, year ending 31 March)						
Central forecast	4.7	3.3	4.3	5.6	5.0	4.9
Stronger domestic demand	4.7	3.6	5.8	6.2	5.1	5.0
Lower demand for NZ dollar assets	4.7	3.3	2.5	5.6	5.7	4.5
OBERAC ($ billion, year ending June)						
Central forecast	8.6	6.7	6.1	5.2	5.8	6.0
Stronger domestic demand	8.6	7.0	7.2	6.4	6.9	6.9
Lower demand for NZ dollar assets	8.6	6.7	4.9	4.5	5.5	5.5

Sources: Statistics New Zealand, The Treasury

Stronger domestic demand

In the central forecast, households are expected to limit their consumption and housing expenditure in order to slow their accumulation of debt. This translates to a relatively weak growth profile for both private consumption and residential investment. The first scenario presented below looks at the situation where households continue to accumulate debt at a faster rate than in the central forecast. Under this scenario private consumption growth reaccelerates during next year and residential investment also rebounds.

Table 3.2 – Stronger domestic demand scenario

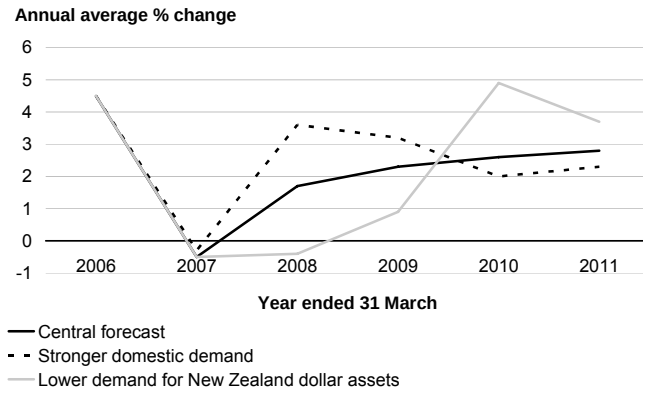
(Annual average % change, year ending 31 March)	2006 Actual	2007 Forecast	2008 Forecast	2009 Forecast	2010 Forecast	2011 Forecast
Private consumption	4.5	1.8	3.2	2.2	1.2	1.3
Residential investment	-4.7	-4.9	6.3	4.8	-1.3	-1.9
Market investment	6.7	-6.2	2.6	5.2	3.6	4.3
Gross national expenditure	4.5	-0.3	3.6	3.2	2.0	2.3
Exports of goods and services	-0.1	3.6	1.3	3.7	4.1	3.9
Imports of goods and services	5.0	-2.5	3.9	3.8	2.3	2.5
GDP (production measure)	**2.2**	**2.0**	**3.3**	**3.4**	**2.6**	**2.8**
Employment growth	2.6	1.7	0.4	1.7	1.4	1.2
Unemployment rate[1]	3.9	4.0	4.3	4.1	4.1	4.2
90-day bank bill rate[2]	7.6	7.6	7.7	7.3	7.0	7.0
TWI[2]	68.3	66.0	63.7	59.3	56.3	53.6
CPI[3]	3.3	2.9	2.9	3.0	2.7	2.4
Current account balance (% GDP)	-9.6	-9.3	-8.9	-8.7	-8.2	-7.9
Nominal GDP (expenditure measure)	4.7	3.6	5.8	6.2	5.1	5.0

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.

With households acting in a less debt-constrained manner, private consumption growth is slightly stronger than in the central forecast in the 2007 March year before accelerating to 3.2% in the March 2008 year, 1.5% stronger than in the central forecast. The momentum in private consumption expenditure continues into the 2009 March year when consumption growth is 1.2% higher than the central forecast. After two years in which residential investment contracts by just under 5% per annum, a willingness by households to continue to accumulate debt for investment in housing sees residential investment grow by 6.3% in the March 2008 year, noticeably faster than the 0% growth predicted in the central forecast.

Figure 3.4 – Real gross national expenditure



Source: The Treasury

With signs of renewed demand from households, firms undertake a higher level of investment than in the central forecast with market investment growing by 2.6% in the March 2008 year, rather than the 1.2% contraction present in the central forecast. Employment growth is also stronger than under the central forecast, with the unemployment rate remaining just over 4% throughout most of the forecast period, compared to a March year peak of 4.8% in the

central forecast. Greater job certainty reinforces households' comfort with accumulating higher debt levels.

With stronger domestic demand and a tighter labour market, inflationary pressures are more intense than under the central forecast. This results in the need for tighter monetary policy relative to the central forecasts. In this scenario, 90-day bank bills are modestly higher in March 2007 at 7.6% rather than the 7.5% reported in the central forecast. However, under this scenario a loosening in monetary policy is not feasible during the 2008 March year, with 90-day rates edging up to 7.7% in March 2008, much higher than the 6% forecast in the central track. Even with such a response, inflation remains higher than the central forecast, with annual Consumer Price Index (CPI) inflation remaining at 3% in March 2009, 1% higher than the 2% annual inflation predicted in the central forecast.

Higher interest rates relative to the central forecast act to limit investment demand, with both residential and market investment growth weaker than the central forecast in the final two years of the forecast period.

With higher financial inflows to meet households' continued desire to borrow, as well as higher interest rates, the exchange rate remains above the central track's level out until the final year of the forecast. The higher exchange rate has a slight dampening effect on export volume growth, which is lower than the central forecast, most noticeably in the 2009 and 2010 March years when export growth is around 0.4% lower. With stronger domestic demand, the demand for imports also increases. This is particularly so in the March 2008 and 2009 years. Stronger import demand, as well as lower export receipts due to the higher exchange rate, sees a smaller reduction in the current account deficit than is expected in the central forecast. Under this scenario, the current account deficit remains at 8.7% of GDP in March 2009, before ending the forecast period at around 8%. A continuation of current account deficits at such a level is unsustainable, suggesting that further adjustment will be necessary in the future.

Higher real activity out until the March 2009 year, combined with higher inflationary pressures, results in nominal GDP growth being above the central forecast over the entire forecast period. The level of nominal GDP is around $4.7 billion higher than in the central forecast in the March 2011 year.

Lower demand for New Zealand dollar assets

The second scenario illustrates a situation in which there is less demand for New Zealand dollar assets. This results in the exchange rate depreciating more rapidly than in the central forecast and also causes uncertainty for households that become less comfortable with accumulating debt.

Table 3.3 – Lower demand for New Zealand dollar assets

(Annual average % change, year ending 31 March)	2006 Actual	2007 Forecast	2008 Forecast	2009 Forecast	2010 Forecast	2011 Forecast
Private consumption	4.5	1.6	0.3	-0.3	2.6	2.4
Residential investment	-4.7	-5.5	-9.3	-1.1	15.0	5.3
Market investment	6.7	-6.2	-5.8	1.5	12.3	7.0
Gross national expenditure	4.5	-0.5	-0.4	0.9	4.9	3.7
Exports of goods and services	-0.1	3.6	1.4	4.7	5.4	3.7
Imports of goods and services	5.0	-2.6	-2.4	-1.1	7.8	6.4
GDP (production measure)	**2.2**	**1.8**	**1.3**	**3.1**	**4.3**	**2.9**
Employment growth	2.6	1.7	-0.3	0.1	1.5	1.9
Unemployment rate[1]	3.9	4.0	5.2	5.3	4.7	4.5
90-day bank bill rate[2]	7.6	7.6	7.2	4.7	5.5	5.5
TWI[2]	68.3	63.0	53.0	55.6	57.4	57.1
CPI[3]	3.3	2.8	2.8	0.8	1.0	1.7
Current account balance (% GDP)	-9.6	-9.3	-9.6	-4.0	-3.5	-4.9
Nominal GDP (expenditure measure)	4.7	3.3	2.5	5.6	5.7	4.5

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.

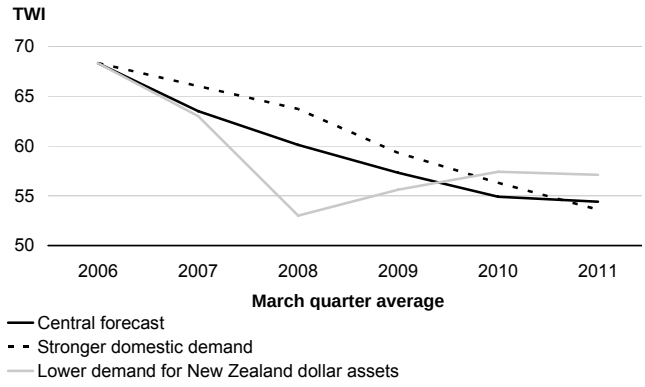
Under this scenario, lower demand for New Zealand dollar assets contributes to the Trade Weighted Index (TWI) falling to 53.0 by the March quarter of 2008, nearly 12% lower than the central forecast. Higher import prices due to the lower exchange rate contribute to inflationary pressures which see 90-day bank bill rates 120 basis points higher than the central forecast in the March quarter of 2008.

Faced with higher interest rates and an environment of financial market uncertainty, households limit their spending growth and pull back from making big housing investment decisions. This sees private consumption growth around 1.4% lower than the central forecast in both the 2008 and 2009 March years. This results in private consumption increasing 0.3% in the March 2008 year followed by a 0.3% contraction in 2009. Residential investment growth is significantly slower than the central track with residential investment contracting 9.3% in the March 2008 year and 1.1% in the March 2009 year, meaning that residential investment has fallen in four consecutive years.

With less demand for their products in the domestic market and higher imported investment good prices, firms are also more reluctant to invest. This results in market investment growth being 4.6% lower than the central forecast in the March 2008 year and 2.9% lower in 2009. Firms also cut back on employment growth which contributes to the unemployment rate increasing to 5.3% by March 2009.

Higher import prices coupled with weak domestic demand growth contribute to a fall in import volumes which decline 2.4% in the 2008 March year and 1.1% in 2009. The lower exchange rate also flows through to the competitiveness of our exports. Export volumes display a lagged response to the lower exchange rate with relatively strong growth of 4.7% in the March 2009 year followed by 5.4% growth in the March 2010 year.

Figure 3.5 – TWI exchange rate



Source: The Treasury

With domestic demand contracting in the March 2008 year and real GDP growth 1% lower than the central track, inflationary pressures are quickly brought under control, with CPI inflation falling below the central forecast in the final three forecast years. To stimulate the economy, monetary policy is able to loosen considerably with 90-day rates falling below 5% by March 2009. This stimulates a recovery in consumption growth in the March 2010 year as well as a recovery in both residential and market investment.

Renewed confidence in the domestic economy and a much diminished current account deficit, following weak import volumes over the 2008 and 2009 March years and improved export volumes and export receipts on the back of the lower exchange rate, promote a renewed focus on New Zealand by international investors. By March 2010 current account adjustment has been substantial with the current account deficit diminishing to less than 4% of GDP. With renewed demand for the New Zealand dollar from foreign investors, the exchange rate appreciates to around 57 on the TWI during 2010 and 2011.

The overall impact of the recovery is that real GDP growth exceeds 4% in 2010 before returning to more trend levels in 2011. However, the initial weakness upfront in this scenario results in the level of nominal GDP being around $3 billion per annum lower than the central forecast in the majority of the forecast years, or an aggregate impact over the four March years to 2011 of $11 billion.

Fiscal Scenarios

The fiscal position is strongly influenced by the economy. The major economic determinants, and how they impact on the fiscal position, are listed below. While each effect is expressed in terms of an increase in the determinant, the opposite impact applies for a decrease.

- Nominal GDP – higher GDP levels are reflected in higher tax revenue, which increases the operating balance and lowers the Government's net debt.
- Interest rates – higher interest rates lead to increased debt financing costs. While interest-based revenue also increases, the negative effect of higher finance costs on the operating balance dominates, meaning net debt increases.
- The level of unemployment – higher levels of unemployment translate to an increase in spending, because the number of unemployment beneficiaries rises. This decreases the operating balance and raises net debt levels.
- CPI inflation – as most benefits are indexed to CPI movements, higher inflation results in increased benefit costs. This reduces the operating balance and increases net debt.

Table 3.4 – Alternative scenarios: impact on OBERAC and debt

Year ending 30 June	2006 Actual	2007 Forecast	2008 Forecast	2009 Forecast	2010 Forecast	2011 Forecast
OBERAC ($ billion)						
Central forecast	8.6	6.7	6.1	5.2	5.8	6.0
Stronger domestic demand	8.6	7.0	7.2	6.4	6.9	6.9
Lower demand for NZ dollar assets	8.6	6.7	4.9	4.5	5.5	5.5
Gross sovereign-issued debt ($ billion)[1]						
Central forecast	35.5	37.9	40.2	39.2	38.6	41.1
Stronger domestic demand	35.5	37.5	38.7	36.5	34.9	36.4
Lower demand for NZ dollar assets	35.5	37.9	41.4	41.1	40.8	43.7
OBERAC (% GDP)						
Central forecast	5.5	4.1	3.6	2.9	3.1	3.0
Stronger domestic demand	5.5	4.3	4.1	3.5	3.6	3.4
Lower demand for NZ dollar assets	5.5	4.1	2.9	2.5	3.0	2.8
Gross sovereign-issued debt (% GDP)[1]						
Central forecast	22.5	23.3	23.5	21.8	20.5	20.7
Stronger domestic demand	22.5	22.9	22.2	19.8	18.0	18.0
Lower demand for NZ dollar assets	22.5	23.3	24.7	23.2	21.9	22.5
Net debt (% GDP)						
Central forecast	4.9	3.9	3.5	4.0	4.1	3.8
Stronger domestic demand	4.9	3.7	2.6	2.4	2.0	1.4
Lower demand for NZ dollar assets	4.9	3.9	4.3	5.1	5.3	5.2

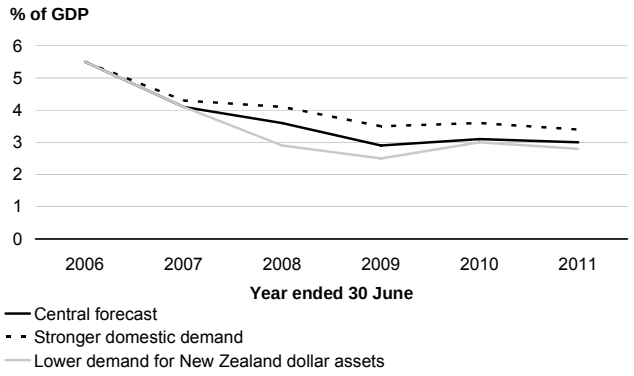
Sources: Statistics New Zealand, The Treasury

NOTE: 1 This chapter assumes that changes in the operating balance translate into changes in gross sovereign-issued debt.

The stronger domestic demand scenario is characterised by higher nominal GDP, higher interest rates and inflation and lower unemployment relative to the central forecast.

Higher nominal GDP and lower unemployment result in an increase in tax revenue and a decrease in benefit payments. Higher inflation results in an increase in indexed benefit payments and higher interest rates result in an increase in interest expenses net of interest income. The overall impact of this scenario is an increase in the operating balance over the forecast period.

Figure 3.6 – OBERAC

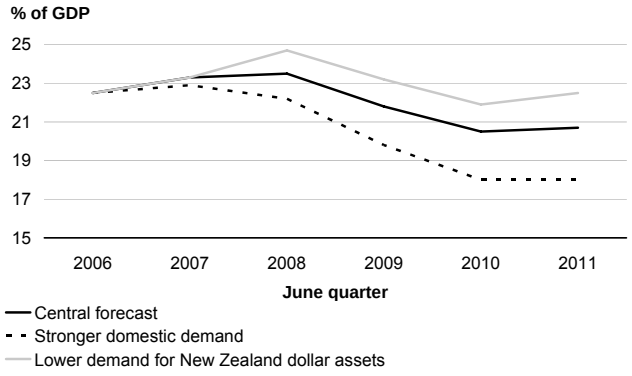


Source: The Treasury

By the end of the forecast period the OBERAC is around 0.4% of GDP higher than in the central forecast and gross sovereign-issued debt (GSID) is 2.7 percentage points of GDP lower than the central forecast.

The lower demand for New Zealand dollar assets scenario is characterised by a lower exchange rate out until 2009. Compared to the central forecast, nominal GDP is lower, unemployment is higher and interest rates and inflation are lower.

Figure 3.7 – Gross sovereign-issued debt



Source: The Treasury

Lower nominal GDP leads to lower tax revenue and higher unemployment leads to higher expenses. However, lower interest rates and inflation result in lower expenses compared to the central forecast. The overall impact is a lower operating balance from 2007/08. The OBERAC as a percentage of GDP is 0.2% lower than the central forecast at the end of the forecast period. The cumulative impact of the lower operating balance results in GSID being 1.8 percentage points of GDP higher than the base case by the end of the forecast period.

Fiscal Sensitivities

The scenarios above indicate the sensitivity of fiscal aggregates to changes in economic conditions. Table 3.5 provides some "rules of thumb" on the sensitivities of the fiscal position to changes in specific variables.

Table 3.5 – Fiscal sensitivity analysis

($ million) Year ending 30 June	**2007 Forecast**	**2008 Forecast**	**2009 Forecast**	**2010 Forecast**	**2011 Forecast**
1% Lower nominal GDP growth per annum					
Revenue	(507)	(1,026)	(1,559)	(2,174)	(2,892)
Addition to financing costs	15	61	139	251	401
Impact on the operating balance	**(522)**	**(1,087)**	**(1,698)**	**(2,425)**	**(3,293)**
Revenue impact of a 1% decrease in the growth rates of:					
Wages and salaries	(205)	(430)	(670)	(935)	(1,225)
Taxable business profits	(110)	(250)	(385)	(520)	(725)
One percentage point lower interest rates					
Interest income	(65)	(59)	(63)	(55)	(59)
Expenses	(79)	(135)	(156)	(190)	(223)
Impact on the operating balance	**14**	**76**	**93**	**135**	**164**

The forecasts of capital contributions to the New Zealand Superannuation (NZS) Fund are sensitive to the rate of return assumed on the Fund's assets:

Table 3.6 – NZS Fund contributions sensitivity analysis

Variable	**Marginal Change**	**Effect on Net Return After Tax**	**Effect on Capital Contribution ($ billion)**			
	(%age points)	(%age points)	**2007/08**	**2008/09**	**2009/10**	**2010/11**
Expected gross rate of return	-1%	-0.71%	+0.200	+0.217	+0.234	+0.251