3

Risks and Scenarios

Overview

There are a number of risks surrounding any set of economic forecasts. If circumstances were to develop differently than allowed for in the Central Forecast, they could produce outcomes where economic growth is stronger or weaker than embodied in the Central Forecast. This would have flow-on effects on the fiscal forecasts.

Table 3.1 – Alternative Scenarios: Summary

	1998/99 Actual	1999/2000 Forecast	2000/01 Forecast	2001/02 Forecast	2002/03 Forecast	2003/04 Forecast
Production GDP (Annual average % change, March years)						
Central Forecast	0.0	4.2	3.7	2.7	2.2	2.6
Higher Export Growth	0.0	4.2	3.8	3.5	2.6	2.3
Weaker Domestic Demand	0.0	4.2	2.1	2.8	2.8	2.8
Nominal expenditure GDP (Annual average % change, March years)						
Central Forecast	0.7	4.9	5.5	5.1	4.5	4.4
Higher Export Growth	0.7	4.9	5.7	5.9	5.0	4.4
Weaker Domestic Demand	0.7	4.9	3.7	4.4	4.6	4.4
Operating balance ($ billion, June years)						
Central Forecast	1.8	0.8	1.0	2.1	2.7	3.2
Higher Export Growth	1.8	0.8	1.1	2.5	3.3	3.7
Weaker Domestic Demand	1.8	0.8	0.4	1.5	2.2	2.4

Sources: Statistics New Zealand, The Treasury

The next section outlines some of the risks that could lead to alternative growth paths for the economy. The subsequent section then presents an example of a high growth ("Higher Export Growth") scenario and a low growth ("Weaker Domestic Demand") scenario to help illustrate some of these risks. These are indicative examples and do not represent upper or lower bounds for the Central Forecast.

Alternative economic scenarios lead to alternative fiscal outcomes, mainly because of differences in the outlook for nominal GDP, a key driver of tax revenue. The last two sections present the fiscal outcomes of the scenarios and sensitivity of the forecasts to alternative economic assumptions. The Higher Export Growth scenario has the operating balance $0.5 billion higher than the Central Forecast by the end of the forecast period. In contrast, the Weaker Domestic Demand scenario sees the operating balance $0.8 billion lower than the Central Forecast by the final year.

Economic Risks

The Central Forecast track represents our best assessment of the likely future path for the economy. It balances the upside risks facing the economy against the downside risks. Almost inevitably, some of these risks will turn out differently from predicted, leading to different economic outcomes.

The December quarter saw continued strength in economic activity, following the strong September quarter, resulting in very strong growth over the second half year of 1999. Millennium celebrations, Y2K-related spending and the America's Cup are likely to have contributed to the buoyant second half year. Agricultural production also surprised on the upside. A stronger unwind of these factors could result in weaker near-term growth than is contained in the Central Forecast.

Recent indicators point to weaker business and consumer confidence. This could be a sign that consumers may be feeling the adverse effects of rising household debt levels more acutely with recent interest rate increases, income and excise tax increases, and petrol price increases. This may lead them to reassess their spending plans. Firms perceiving a more uncertain and difficult economic environment amid a tightening monetary cycle may be more circumspect on investment and employment.

A persistently lower exchange rate may also imply a different mix of monetary conditions, and a different composition and profile of growth. Oil prices may be higher than projected in the Central Forecast, placing additional upward pressure on the inflation outlook. Higher oil prices may also spill over into wage settlements, requiring a greater monetary policy response.

On the other hand, strong employment growth, higher wages and an unabated appetite for debt could spur consumers to spend more than allowed for in the Central Forecast.

In an environment of a historically low exchange rate and continuing strong world growth, greater demand for our exports might eventuate, leading to Higher Export Growth than is contained in the Central Forecast. Stronger world growth could also lead to higher prices for our export commodities providing an additional external boost to economic growth.

After two seasons of severe drought, the current growing season has been exceptionally good. Such climate variability poses an ongoing risk to the economic outlook. The Central Forecast assumes a return to normal growing conditions in the 2000/01 season and beyond.

Further out, a sharp slowdown in the world economy still remains a risk. The possibility of this largely depends on whether the United States economy slows gradually or corrects more sharply in response to higher interest rates. The overall impact on New Zealand would also depend on how other economies, particularly Australia and Asia, and confidence levels respond to developments in the United States economy.

In the medium term, labour productivity growth could have a significant impact on the alternative paths for economic growth, through its impact on the inflation outlook and required monetary policy response.

Economic Scenarios

To illustrate some of these risks, we present two scenarios representing two possible alternative economic outcomes to the Central Forecast. The first shows the impact of a weaker domestic sector in the near term. The second shows the impact of sustained stronger export growth. These are indicative examples and do not represent upper or lower bounds for the Central Forecast.

Weaker Domestic Demand

This scenario assumes that weaker business and consumer confidence leads to lower spending, employment and investment in the near term than allowed for in the Central Forecast. Economic growth slows quite sharply in March 2001 to 2.1% before returning to steady growth of 2.8%, as monetary conditions remain stimulatory for longer.

Table 3.2 – Weaker Domestic Demand

(Annual average % change, March years)	**1998/99 Actual**	**1999/2000 Forecast/ Actual**	**2000/01 Forecast**	**2001/02 Forecast**	**2002/03 Forecast**	**2003/04 Forecast**
Private consumption	1.4	3.2	1.0	0.9	1.7	2.2
Business investment	5.5	6.6	8.1	4.8	10.4	12.9
Gross national expenditure	(0.4)	6.5	0.4	2.7	3.5	4.3
Exports of goods and services	2.2	6.4	9.1	6.4	5.2	4.2
Imports of goods and services	3.3	11.5	3.6	5.9	6.3	7.4
GDP (Production Measure)	**0.0**	**4.2**	**2.1**	**2.8**	**2.8**	**2.8**
Unemployment rate[1]	7.2	6.4	6.6	6.0	5.7	5.7
90-day rate[2]	4.5	6.0	5.7	5.7	5.9	6.2
TWI[2]	57.6	54.1	54.6	55.7	56.1	55.2
CPI[3]	1.3	1.7	2.0	1.4	1.7	1.7
Current account balance (% GDP)	(5.8)	(7.8)	(5.7)	(4.5)	(3.8)	(3.5)
Nominal GDP (Expenditure Measure)	0.7	4.9	3.7	4.4	4.6	4.4

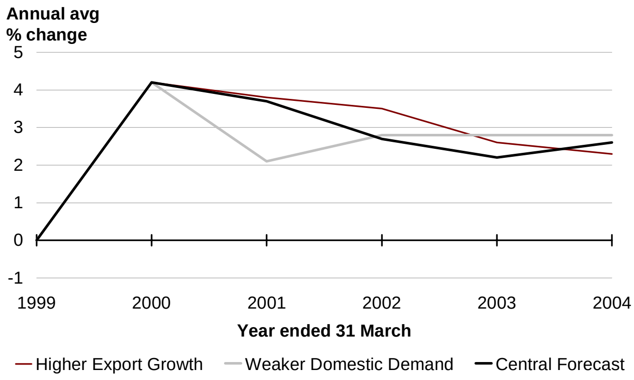
Sources: Statistics New Zealand, Datastream, The Treasury

Notes:
1 Percentage of labour force, March quarter, seasonally adjusted.
2 Average for March quarter.
3 This is the CPI-consistent series targeted by the Reserve Bank. Annual percentage change, March quarter.

Consumption growth slows rapidly in the March 2001 year as households reassess their spending plans in light of their increasing debt levels. Rising debt together with an oversupply of housing also results in residential investment contracting. Firms scale down their investment and employment plans, as they perceive a more difficult economic environment.

Unemployment rises to 6.6% in March 2001 as employment growth falls off. The labour market tightens moderately by the end of the forecast period as a result of steady economic growth.

Figure 3.1 – Real GDP growth



Sources: Statistics New Zealand, The Treasury

The weaker economy in the near term allows monetary conditions to remain stimulatory for longer. This mitigates the impact of falling domestic demand and sees consumption and investment lifting over the final part of the forecast horizon. Price pressures remain well under control, with inflation rising only slightly over the mid-point of the Reserve Bank's target range by the end of the forecast period.

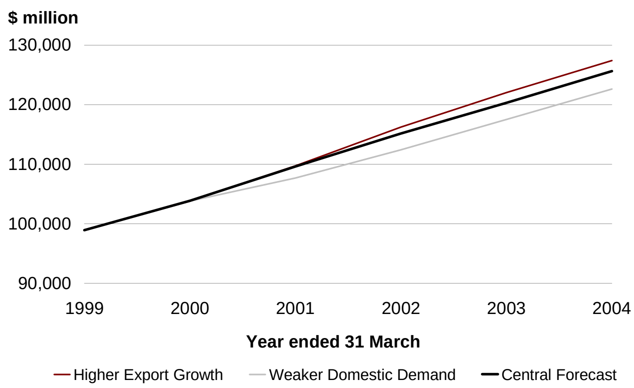
Domestic weakness and a broadly stable exchange rate at levels lower than the Central Forecast induce a greater switch from the domestic sector to the external sector, dampening import growth and providing some support for export growth. This leads to a decrease in the current account deficit. By March 2004, the current account deficit stands at 3.5%.

Under these assumptions, the nominal economy is around $2.9 billion lower by March 2004 than in the Central Forecast. Of this, $0.7 billion is due to weaker activity, with the rest due to lower inflation.

Higher Export Growth

This scenario traces a possible path for the economy if export growth remained stronger for longer than allowed for in the Central Forecast. Economic growth remains above 3.5% through the March 2002 year. It falls back in the final years of the forecast period as monetary conditions tighten to prevent the economy from straying too far beyond capacity.

Figure 3.2 – Nominal GDP



Sources: Statistics New Zealand, The Treasury

Table 3.3 – Higher Export Growth

(Annual average % change, March years)	**1998/99 Actual**	**1999/2000 Forecast/ Actual**	**2000/01 Forecast**	**2001/02 Forecast**	**2002/03 Forecast**	**2003/04 Forecast**
Private consumption	1.4	3.2	2.5	1.9	2.5	2.8
Business investment	5.5	6.6	14.3	12.2	9.4	9.4
Gross national expenditure	(0.4)	6.5	2.4	4	3.9	4.3
Exports of goods and services	2.2	6.4	9.2	7.9	5.5	3.8
Imports of goods and services	3.3	11.5	4.6	8.6	8.6	8.9
GDP (Production Measure)	**0.0**	**4.2**	**3.8**	**3.5**	**2.6**	**2.3**
Unemployment rate[1]	7.2	6.4	5.7	5.0	5.2	5.6
90-day rate[2]	4.5	6.0	7.8	8.5	8.7	7.7
TWI[2]	57.6	54.1	57.3	61.4	64.4	64.0
CPI[3]	1.3	1.7	2.8	2.4	2.3	2.1
Current account balance (% GDP)	(5.8)	(7.8)	(5.8)	(4.5)	(4.1)	(4.3)
Nominal GDP (Expenditure Measure)	0.7	4.9	5.7	5.9	5.0	4.4

Sources: Statistics New Zealand, Datastream, The Treasury

Notes:
1 Percentage of labour force, March quarter, seasonally adjusted.
2 Average for March quarter.
3 This is the CPI-consistent series targeted by the Reserve Bank. Annual percentage change, March quarter.

Domestic confidence lifts on the back of the strong external demand being sustained into the March 2003 year. Businesses respond by increasing investment spending quite quickly and employing more labour. The labour market tightens quickly, with the unemployment rate falling to 5.0% by March 2002 and wages growing quite strongly. Consumption growth improves from March 2003 onwards with rising incomes.

Capacity constraints tighten. This leads to intensified inflationary pressures, requiring a sharp tightening in monetary conditions to dampen demand. Interest rates rise to 8.7% by March 2003, slowing growth in the final two years. The appreciating exchange rate dampens export growth in the final year. However, sustained pressure on capacity means that inflation heads towards, but still remains above, the mid-point of the Reserve Bank's target range by the end of the forecast period.

Higher export volumes lead to a decrease in the current account deficit. By March 2003, the current account deficit stands at 4.1% before widening a little in the final year.

Under these assumptions, the nominal economy is around $1.9 billion higher by March 2004 than in the Central Forecast. Of this, $1.0 billion is due to stronger activity, with the rest due to higher inflation.

Fiscal Scenarios

As discussed in Chapter 2, Fiscal Outlook, economic and non-economic outcomes influence the fiscal position. The main economic influences are:

- GDP – nominal GDP is the main driver of tax revenue.
- Interest rates – higher interest rates will increase revenue received from interest income (Resident Withholding Tax) and increase finance costs paid on Government borrowing. Changes in interest rates also affect the valuation of the GSF and ACC liabilities, which flow through the operating balance.
- Unemployment rate – an increase in the unemployment rate will increase the number of unemployment beneficiaries and therefore unemployment spending. Supplementary benefits, such as the accommodation supplement, are also likely to increase.
- CPI inflation – most benefits are indexed to CPI movements, especially New Zealand Superannuation (subject to reaching the 65% wage floor in April 2004, after which it will become wage indexed), the Community Wage and the Domestic Purposes Benefit.

Table 3.4 shows the effect of the two different sets of economic outcomes, as described in the section above, on the operating balance and net debt. For the purposes of these illustrations it is assumed:

- Changes in the operating balance are assumed to adjust net debt.
- No changes in capital contributions for pre-funding future New Zealand Superannuation expense, or NZS asset returns.
- No changes in the valuation of the ACC and GSF liabilities. The sensitivities of these liabilities are illustrated in Table 3.5.

Table 3.4 – Alternative scenarios: Operating balance and net Crown debt

$ billion June years	1999 Actual	2000 Forecast	2001 Forecast	2002 Forecast	2003 Forecast	2004 Forecast
Operating balance						
Central Forecast	1.8	0.8	1.0	2.1	2.7	3.2
Higher Export Growth	1.8	0.8	1.1	2.5	3.3	3.7
Weaker Domestic Demand	1.8	0.8	0.4	1.5	2.2	2.4
Net debt						
Central Forecast	21.7	21.8	22.3	21.8	21.3	21.0
Higher Export Growth	21.7	21.8	22.2	21.3	20.3	19.5
Weaker Domestic Demand	21.7	21.8	22.9	23.0	23.0	23.5
% GDP June years						
Operating balance						
Central Forecast	1.8	0.7	0.9	1.8	2.2	2.5
Higher Export Growth	1.8	0.7	1.0	2.1	2.6	2.9
Weaker Domestic Demand	1.8	0.7	0.4	1.3	1.9	1.9
Net debt						
Central Forecast	21.7	20.7	20.1	18.7	17.5	16.5
Higher Export Growth	21.7	20.7	20.0	18.1	16.4	15.1
Weaker Domestic Demand	21.7	20.8	21.0	20.2	19.3	18.9

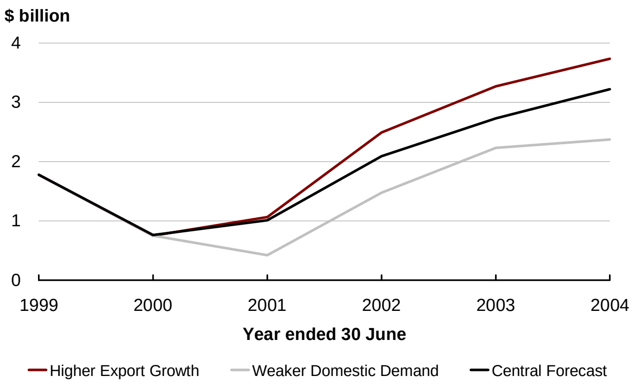
Source: Statistics New Zealand, The Treasury

The operating balance in the Higher Export Growth scenario tracks at a similar rate to the Central Forecast in 1999/2000 and 2000/01 reflecting only a small upside to strong current economic conditions.

From 2001/02 the operating balance increases by around $500 million. This increase reflects a spurt in nominal GDP between 2001/02 and 2002/03 driving increases in tax revenue, partly offset in later years by higher finance costs resulting from higher interest rates.

The savings from a lower unemployment rate largely offset the cost of higher CPI inflation on benefits. However, additional pressure from the higher CPI inflation forecasts is likely on other areas of government spending. This effect has not been modelled as any pressure would need to be met from the provision for future initiatives (see page 35, Chapter 2, Fiscal Outlook).

Figure 3.3 – Operating balance

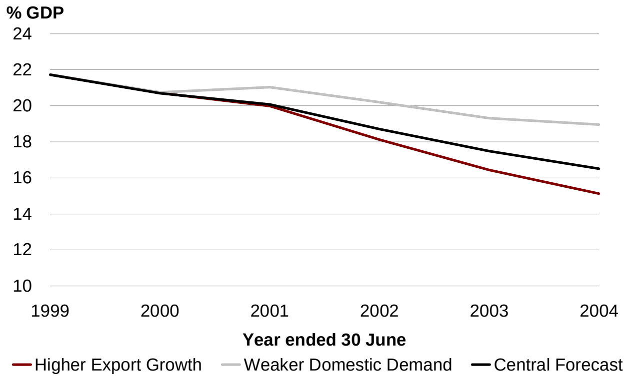


Source: The Treasury

Under the Weaker Domestic Demand scenario the operating balance drops by around $600 million in 2000/01. The effect of around a 2% smaller nominal economy compared to the Central Forecast is partly offset by the effect of lower forecast interest rates. A similar gap in the operating balance is maintained throughout the remainder of the forecast period reflecting mainly the carry over effect of a lower tax base in 2000/01.

The changes in the operating balance have a cumulative effect on net debt. Compared to the Central Forecast net debt is lower in the Higher Export Growth scenario by around 1.5% of GDP and higher by around 2.5% of GDP in the Weaker Domestic Demand scenario in 2003/04.

Figure 3.4 – Net debt



Source: The Treasury

Fiscal Sensitivities

The scenarios above indicate the sensitivity of the forecasts to alternative economic scenarios. The table below provides some general 'rules of thumb' of the sensitivities of the fiscal position to changes in specific variables. Sensitivities around different tax types can be found on the "Tax Card" located on the Treasury's internet site (www.treasury.govt.nz).

Table 3.5 – Sensitivity analysis

($ million)	**2000/01 Forecast**	**2001/02 Forecast**	**2002/03 Forecast**	**2003/04 Forecast**
1% higher nominal GDP growth per annum				
Revenue	360	770	1,220	1,710
Expenses (mainly debt servicing)	10	50	120	200
Impact on the operating balance	**370**	**820**	**1,340**	**1,910**
Revenue impact of a 1% increase in the growth rate of:				
Wages and salaries	360	770	1,220	1,710
Taxable business profits	60	150	250	380
One percentage point lower interest rates				
Revenue	(50)	(50)	(60)	(60)
Expenses	90	150	190	250
Impact on the operating balance	**40**	**100**	**130**	**190**
One percentage point lower real interest rates				
ACC liability (SOE and Crown entity surpluses)	(350)	-	-	-
GSF liability (expenses)	(1,600)	-	-	-
Impact on the operating balance	**(1,950)**	-	-	-

The different sensitivities of the ACC and GSF liabilities reflects the different properties of the liabilities especially the magnitude and timing of the expected cash-flows. These differences are highlighted in the table below.

Table 3.6 – Comparison of ACC and GSF liabilities

	Total liability ($ billion)	Net liability ($ billion)	Expected years of payment
ACC	6.5	3.9	up to 15
GSF	11.5	8.4	up to 70