RESERVE BANK ECONOMETRIC MODEL FORECASTS[1]

This article, prepared mainly by Ashley Lienert, presents econometric model forecasts which were finalised on 29 March 1988.

Summary

An easing of private consumption expenditures and exports is estimated to have produced an overall decline in Gross Domestic Product (GDP) of about 1 per cent in the year to March 1988. Despite somewhat stronger export growth projected for 1988, a slight further weakening in economic activity is anticipated over the coming year with consumption expenditures forecast to adjust down as household savings recover to more normal levels following the stock market crash.

With the inflation rate forecast to decline to 5.5 per cent by March 1989 and to near 4 per cent by March 1990, interest rate levels are expected to continue falling, stimulating some expansion of consumption and investment expenditures in 1989. Consumption growth in 1989 will also be supported by stronger real disposable incomes. Continued export growth is expected to contribute to an expansion in real GDP in 1989/90 of around 2 per cent.

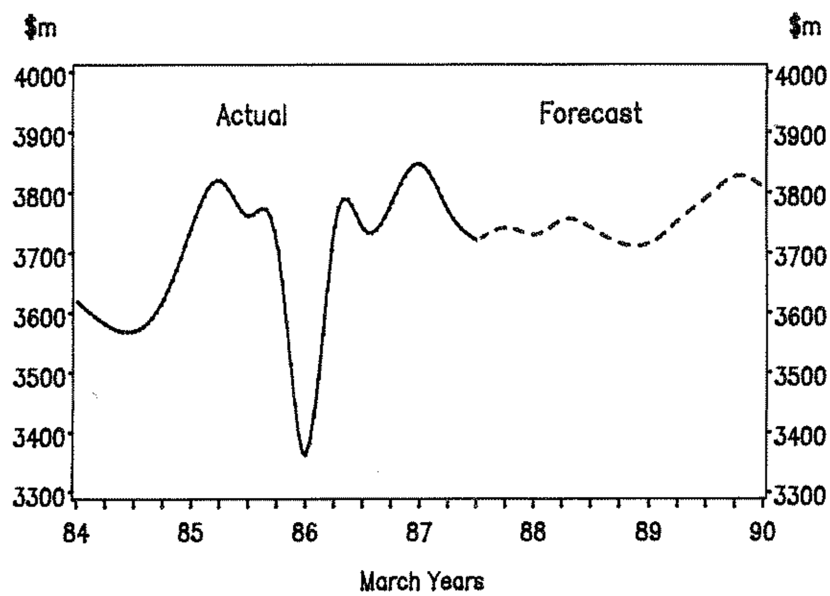
The company tax rate change introduced in April this year and the income tax cuts planned for 1 October 1988 are likely to have a positive, but limited, effect on the general level of economic activity within the forecast period. The boost to after-tax incomes resulting from the tax reductions in 1988/89 will be largely offset by changes to the provisional tax system in this year while the company tax rate change is unlikely to have any significant effect on investment plans in the short term. Some stimulus to consumption and investment expenditures in 1989 is, however, attributed to the tax rate reductions.

Economic Activity

The general level of economic activity in New Zealand, as measured by the Department of Statistics' new real expenditure on GDP series, is estimated to have fallen by 1.1 per cent in 1987/88 and is then forecast to fall by a further 0.3 per cent in 1988/89 before recovering by 1.8 per cent in 1989/90. The profile of activity portrayed, abstracting from normal seasonal movements (see figure 1), indicates a slight further easing in output through to the March quarter of 1989, followed by a moderate recovery extending out over the remainder of the forecast period.

During the full 1988/89 year all components of real expenditure are forecast to contract except for exports of goods and services which provide a significant offsetting influence to the decline in domestic expenditures. In 1989/90, steady export growth is expected to continue and this is reinforced by an upturn in all the major components of final domestic expenditure.

Figure 1
Real GDP
Seasonally Adjusted 1976/77 $m



Incomes and Consumption

Although the income tax cuts introduced on 1 October 1986 almost fully compensated for the GST-inclusive effects of consumer price inflation, household disposable incomes are still estimated to have fallen by around 1.8 per cent over the past year. A 2.3 per cent increase in real incomes is forecast over 1988/89 mainly as a result of some recovery in farm incomes and the 1987/88 wage round; which is expected to produce an average wage and salary increase in 1988/89 greater than predicted consumer price inflation. The positive effects of the personal tax changes to be introduced 1

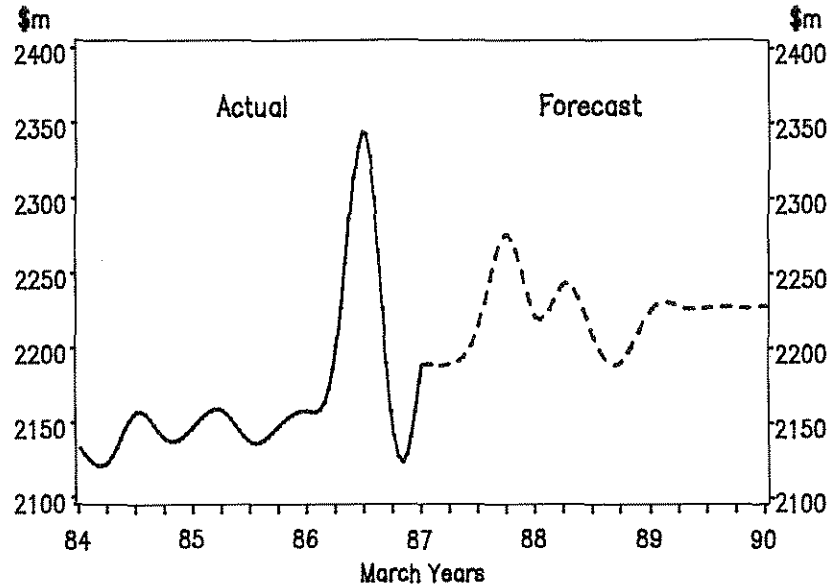
[1] These forecasts are produced primarily for use within the Bank and do not represent official Reserve Bank forecasts.

October 1988 are expected to be more than offset in the 1988/89 year by fiscal drag (the phenomenon whereby inflation pushes nominal incomes into higher tax brackets) and by the changes to the system of provisional tax payments made by individuals on non-wage and salary income.

The effects of the changes in the provisional tax structure provide a one-off increase in personal taxation payments in 1988/89. Personal tax payments in 1989/90 are expected to grow much more slowly, boosting the forecast growth in real disposable incomes to 2.8 per cent.

Despite a cumulative decline of around 2.6 per cent in disposable incomes over the last two years, real private consumption has continued to grow by some 3.5 per cent over the same period (see figure 2), reflecting in part the impact of a strong sharemarket and the pre-GST boom in consumer spending. The resulting decline in the savings ratio should be reversed in 1988/89, with private consumption falling by 0.5 per cent from the abnormally high base of 1987/88. Lower consumer confidence resulting from the sharemarket crash is also expected to lead to only a slow recovery in consumption, despite strong real disposable income growth, and hence should contribute to a further rebuilding of savings in 1989/90.

Figure 2
Real Private Consumption
Seasonally Adjusted 1976/77 $m



Investment

Gross fixed capital formation is estimated to have increased by around 7.4 per cent over the last year. Most of this growth is estimated to have occurred in the private investment component; particularly in transport equipment and commercial buildings. Conversely, private residential investment is estimated to have fallen by around 7 per cent.

In 1988/89 the situation is expected to be reversed somewhat with a recovery in residential investment and a fall in the 'other' category of private investment, in particular commercial building, from the abnormally high 1987/88 base level[2]. Public sector investment is also forecast to slow, contributing to an expected fall in total investment of 3.4 per cent.

Total investment in 1989/90 is predicted to grow by 3 per cent with a return to growth in each of the public, private residential and 'other' private investment categories. Contributing to the upturn in 'other' private investment is the overall recovery in economic activity, some easing in interest rate cost pressures, and some response to the lower company tax rate implemented on 1 April 1988.

Balance of Payments

Real import volumes of goods and services are estimated to have increased by around 10.2 per cent in 1987/88, mostly reflecting a high import content of the growth in 'other' private investment over this period. Export volumes, on the other hand, are thought to have remained at about their 1986/87 level.

Despite this, an improvement in the balance of payments current account occurréd primarily due to the compensating influence of an 11.2 per cent improvement in the terms of trade.

During 1988/89, import volumes are expected to fall by 0.4 per cent in response to the drop in domestic expenditures, particularly private investment. On the other hand, export volumes are predicted to grow by around 2.6 per cent, largely representing strong forecast growth in the horticulture and forestry sectors.

Given a small projected decline in the terms of trade of around 1 per cent, the balance of payments current account deficit is forecast to improve from around 3.7 per cent of GDP in 1987/88 to 2.9 per cent of GDP in 1988/89 (see figure 3).

Export volumes are expected to continue growing in 1989/90 at around 2.8 per cent, with import volumes expanding by 2.3 per cent, in line with the recovery in domestic expenditures. Export price growth is forecast to weaken to just 1 per cent in 1989/90, owing to a poorer price outlook for wool and horticultural products. Combined with

2 'Other' private investment includes non-residential building, plant and equipment and transport equipment expenditures.

Figure 3
BOP Current Account Deficit
Four Quarter Running Total $m

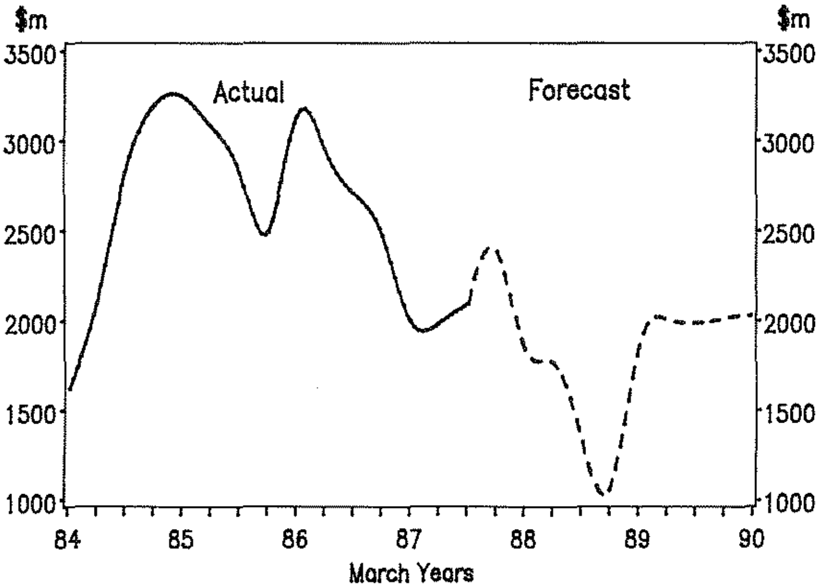
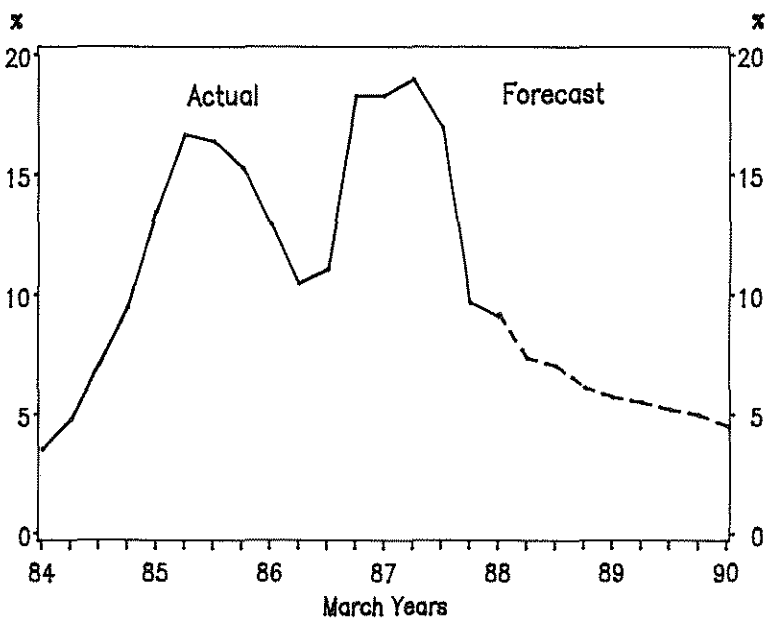


Figure 4
Consumers Price Index
Annual Percentage Change



the expected 4.9 per cent increase in import prices, this results in an estimated 3.7 per cent fall in the terms of trade over 1989/90.

The pick-up in import volumes, combined with the drop in the terms of trade, produces a forecast balance of payments current account deficit of around 3 per cent of GDP in 1989/90, marginally worse than the previous forecast year but somewhat better than the position at the beginning of the forecast period.

Inflation

The rate of inflation, as measured by movements in the Consumers Price Index, is predicted to slow markedly over the coming year. The March-to-March movements, as shown in figure 4, are predicted to be 5.5 per cent in 1989 and 4.3 per cent in 1990. Several factors underlie this trend including the continued maintenance of a firm monetary policy stance, slower growth in house prices in the wake of the sharemarket crash, the easing in nominal interest rates, low inflation in New Zealand's trading partners and a relatively weak outlook for domestic demand conditions.

Employment

While it is estimated that there has been an almost 1 per cent increase in full-time employment over the past year, no further growth in total employment is anticipated to occur over the next two years. Full-time employment is forecast to decline slightly in 1988/89 as a result of falls in both private and public sector employment but this decline is then largely offset by an increase in employment in 1989/90. This prediction is consistent with the relatively flat profile of domestic activity expected over the two year forecast period.

Government Accounts[3]

In 1988/89, the Government Financial Statistics (GFS) Financial deficit is forecast to be around $800 million or 1.3 per cent of GDP. Revenues are assumed to increase roughly in line with inflation with the effect of tax rate reductions roughly offsetting higher tax revenues due to

[3] No forecasts of the Budget Table 2 balance in 1988/89 and 1989/90 have been formulated due to the uncertainty surrounding the timing and volume of asset sales.

fiscal drag and changes to the provisional/terminal tax payment structure. Government expenditure is projected to fall in real terms due to a lowering of debt service payments as interest rates fall.

In 1989/90, a further fall in real Government expenditure is anticipated. On the basis of announced fiscal policies, however, the deficit impact is more than offset by a fall in receipts as tax revenues fall back to more normal levels following the one-off boost to receipts in 1988/89 from provisional tax payers. The 1989/90 GFS financial deficit is forecast to be around $1,100 million or 1.6 per cent of GDP.

SUMMARY OF FORECASTS
(annual percentage changes of annual totals or averages)

March Years	1987[e]	1988[e]	Forecasts 1989	Forecasts 1990
Real Expenditures on GDP				
Consumption	3.1	0.1	-0.5	0.6
Gross Fixed Capital Formation	-5.7	7.4	-3.4	3.0
Final Domestic Expenditure	0.6	2.0	-1.2	1.2
Stockbuilding[1]	1.3	0.6	-0.1	0.3
Gross National Expenditure[2]	1.9	2.6	-1.3	1.6
Exports of Goods and Services	3.0	-0.1	2.6	2.8
Imports of Goods and Services	-0.7	10.2	-0.4	2.3
Expenditure on GDP[3]	3.2	-1.1	-0.3	1.8
Personal Income				
Personal Income	15.8	9.3	7.7	5.5
Less Income Tax	21.6	4.4	7.9	0.8
Personal Disposable Income	13.4	11.6	8.4	7.9
Consumer Price Index (average)	14.6	13.3	6.0	4.8
Real Personal Disposable Income	-0.8	-1.8	2.3	2.8

e Estimates.
1 Percentage point contribution to growth in GDP.
2 Includes a statistical discrepancy.
3 Reserve Bank estimates based on Statistics Department series.

SUMMARY OF FORECASTS
(annual percentage changes of annual totals or averages)

Government Budget Transactions				
GFS Finance Balance	-1,894	-1,323*	-800	-1,100
GFS Finance Balance/GDP (%)	-3.6	-2.2*	-1.3	-1.6
External Sector Transactions				
Current Credits[4]	7.1	6.6	6.8	4.8
Current Debits[4]	-1.0	6.4	4.5	7.0
Current Account Balance ($m)[5]	-1,995	-1,819*	-1,830	-2,010
Current Account Balance/GDP (%)	-3.8	-3.1	-2.9	-3.0
External Trade Prices				
Export Price Index	1.6	7.0	3.7	1.0
Import Price Index	-2.7	-3.8	4.7	4.9
Terms of Trade – % change	4.5	11.2	-1.0	-3.7
Prices				
Consumer Price Index[6]	18.2	9.0	5.5	4.3
Employment (full-time)[6]	-2.5	0.8	-0.8	0.5

4 SNA basis (Goods and Services).
5 Balance of Payments basis.
6 March quarter to March quarter.
* These are updated figures that have been included since the forecasts were finalised. The forecasts themselves remain unchanged.

Notes

(1) The above forecasts are based on a no policy change assumption – no allowance is made for possible government policy changes or reactions to the developments portrayed.
(2) The forecasts contain a degree of judgmental input arising first from the necessary process of adopting one of several alternative structures for the econometric model of the New Zealand economy, and second from forecasters' assumptions with respect to projections of exogenous variables and technical adjustments.