

## ECONOMIC NOTES

### Modifications to Liquidity Management Policy

On 3 December 1985, the Minister of Finance, the Hon. R.O. Douglas, announced some changes to the Bank's liquidity management policy. This note provides details of these changes.

Broadly speaking, the modifications are refinements of the earlier arrangements rather than fundamental changes in approach. The main modifications to liquidity management policy, coming into full force on 1 April 1986, are:

1. A reduction from six months to one month in the maximum remaining term to maturity of transferable government securities which will be eligible for on demand sale to the Reserve Bank. The discount margin applied over and above the Bank's assessment of market selling yields will continue to be 1 per cent.
2. A corresponding change in the definition of primary liquidity: the new definition will comprise settlement balances held at the Reserve Bank plus all government securities eligible for on demand discounting (i.e. up to one month remaining term to maturity).
3. An increase in the interest rate paid on settlement balances, and a frequent (usually daily) adjustment of that rate to maintain an approximately stable relationship with market rates. Initially the interest rate will be maintained at about 65 per cent of the Bank's assessment of seven day interest rates in the market. Should 65 per cent not prove to be an appropriate margin to maintain, it will be changed.
4. Potentially more active policy operations through tenders of new issue securities and open market operations in existing securities in order to limit the degree of variation in primary liquidity and its components — particularly settlement balances.

Progression to the new discount rules will be commenced immediately, such that the one month limitation on government securities which can be discounted on demand will take full effect as from 1

April 1986. This means that as from 4 December 1985 the Reserve Bank will not discount, on demand, government securities maturing after 30 April 1986.

The modification to the payment of interest on settlement balances will also be implemented as from 4 December 1985. This will make it possible to move to a greater average level of settlement balances, with the appropriateness of the level, as previously, being judged on the basis of all the available indicators of market tightness. In order to obtain a higher level of settlement balance, initially the level of Treasury bills sold by tender will be reduced. This will later be supplemented by open market operations to buy government securities maturing after April 1986. The reasons for using such open market operations are:

1. Current projections indicate that following the March tax drain the maturity structure of primary liquidity as currently defined would virtually be devoid of settlement balances or discountable securities with less than one month to maturity. It would therefore be necessary in any case to conduct some 'maturity switching' operations in order to achieve a reasonable balance in the maturity structure of primary liquidity.
2. With the change in the discount policy rules, it is anticipated that settlement institutions in particular will wish to hold greater volumes than previously of cash and near cash assets available for settlement. Given the progressive closure of the discount window from six months to one month by 1 April 1986, it will be consistent with maintaining stable short-term liquidity conditions to supply a greater volume of cash and near-cash securities.

The exact timing and amounts of these operations cannot be fully assessed ahead of time, but will be advised to the market during the transition period. The operations are likely to commence before the end of December 1985.

It should be noted that the 1985/86 stock tender programme will remain unchanged. The liquidity management policy modifications are technical in nature, and do not represent a change in the stance of policy.

### LIQUIDITY PROJECTIONS (\\$ million)

Influences	7 mths to Nov. 1985-		Year to Mar. 1986
	Oct. 1985	Mar. 1986	
Fiscal deficit <sup>1</sup>	2,570	- 970	1,600
Reserve Bank <sup>2</sup>	-1,950	270	-1,680
Maturing Debt <sup>3</sup> (wholesale)	1,555	775	2,330
Other <sup>4</sup>	135	145	280
Net Public Sector Injection (before Stock Tender sales)	2,310	+ 220	2,530
Stock Tender Sales	-1,370 <sup>4</sup>	-1,130 <sup>3</sup>	-2,500

Includes residual items such as the additional liquidity impact of the Government's transactions which is not captured in the fiscal deficit due to timing factors. These items are assumed to sum to zero over the financial year as a whole.

Includes repayment of compensatory deposits, open market operations, changes in producer board account balances, interest received on Reserve Bank government security holdings and Reserve Bank purchases of foreign exchange on behalf of Government.

Government securities becoming less than six months to maturity.

Includes retail debt transactions and purchases of government stock by the Earthquake and War Damage Commission.

Of this total, approximately \$530 million has already been sold, including outstanding settlements from Tender 24. This leaves around \$600 million to be sold over the remainder of the current financial year.

### Discussion and Amplification

There is no 'correct' liquidity management system. A wide range of systems can achieve the desired objectives of short-term management. The main motivation for modifying the definition of primary liquidity (that is changing the discount window rules) is to make the nature of the liquidity management operation easier to understand and interpret. With primary liquidity defined to include government securities of up to six months to maturity, the level of primary liquidity currently is subject to a considerable degree of short-term variation in the face of an unaltered monetary policy stance. This variation is due first to the extensive seasonality of the Government's income and expenditure, and second to the uneven maturity distribution of the outstanding government debt which is becoming discountable.

An important implication of the modification to the liquidity management approach is that more of the underlying seasonality of government flows will be reflected in financial assets which are outside the definition of primary liquidity. These assets will mainly be Treasury bills with more than one month to maturity. Primary liquidity itself will therefore vary less for seasonal reasons through most of the year, although there will still be sizeable fluctuations occurring around the major tax collection periods in September, and especially March.

The influence of the uneven distribution of maturing government debt on primary liquidity will not be reduced by the change in the definition of primary liquidity *per se*. However, associated with that modification, somewhat greater attention will be paid to managing through active operations (both tenders and open market operations) the level and composition of primary liquidity. Such operations will attempt to take account of the pattern of maturing government

securities so that their impact on liquidity is not unduly disruptive.

More active management will involve operations in both short-dated government securities (i.e. less than one month to maturity) and securities outside the new definition of primary liquidity. The supply of short-dated securities to the market (over and above those originally issued for more than one month which are approaching maturity) will be predominantly through frequent open market operations. Treasury bills with original maturities of longer than one month will be issued via regular tender. The maturities of the tendered Treasury bills will relate to the seasonal profile of government transactions, notably the tax drain periods at the end of each month and the large flows in September and March.

Liquidity management policy, while probably more active than previously, will not provide any guarantees of minimum levels of settlement cash or primary liquidity. In particular, the stock tender programme, which is centered on fully funding the net public sector liquidity injection, will continue to impact on general liquidity conditions by influencing the trend path of primary liquidity. Excessive expansion by financial institutions will not be accommodated by the supply of additional liquidity through the liquidity management operation.

### Reserve Bank Econometric Model Forecasts

The Reserve Bank on 28 November 1985 released a new set of economic forecasts, which update those released in June and incorporate the policy changes contained in the Government's August 'Statement on Taxation and Benefit Reform'. The forecasts are prepared using the Bank's econometric model, which incorporates behavioural linkages established over a period when the policy environment was different in some important respects. Accordingly, the results must be interpreted with considerable caution.

#### Economic Activity

The most significant difference between these forecasts and the previous set is that a contraction in economic activity, as measured by the Reserve Bank's real Gross Domestic Product (GDP) series, is now forecast for the 1986/87 year. Real GDP is now forecast to grow by about 1 per cent in 1985/86 but then to fall by about 2 per cent in 1986/87.

The projected downturn is due to a number of factors, including falling real household disposable incomes over 1985/86 which are expected to give rise to a contraction in real consumption expenditures; the impact of the recent strength of the New Zealand dollar on the competitive position of exporters and import competing industries; and the effect of these factors, together with the present wage round and the Government's firm financial policies, on business profitability and thus private investment and employment growth.

#### Incomes and Consumption

Real private consumption expenditures are forecast to fall in both 1985/86 and 1986/87. Growth in nominal wages and some other components of income in the current year are partly offset by a significant

contraction in farm income; and when combined with inflation, fiscal drag and the rise in interest rates, the result is a fall in real household disposable incomes of nearly 7 per cent in 1985/86. Dissaving by the household sector is expected to be necessary to maintain real private consumption at close to recent levels. However, real household disposable incomes are forecast to rise by about 4 per cent over 1986/87, reflecting growth in wages and salaries, the 1 October 1986 income tax cuts, falling inflation and some easing in interest rates. This income rise is not expected to be sufficient to prevent a further fall in real private consumption expenditures, given an expected return to more normal savings patterns. In both 1985/86 and 1986/87 the falls in private consumption are partially offset by continuing slow growth in government consumption.

### Investment

Total investment is forecast to grow by some 11 per cent in 1985/86 but then fall in 1986/87 in response to

reduced profits and a slowing in both domestic and foreign demand. The GST contributes to this pattern by bringing forward into 1985/86 some private residential investment which would otherwise have occurred in 1986/87. The investment downturn also reflects the projected fall-off in central government investment in 1986/87 that results from the completion of many of the larger energy projects.

### Balance of Payments

Growth in export volumes is expected to continue through into 1986/87, but at a slower pace than was forecast in June. A significant contraction in import volumes is forecast in 1986/87 although, again, this is less pronounced than in the June forecasts. The net effect of the external sector forecasts is a projected fall in the current account deficit (on a balance of payments basis) from just under \$2,700 million in 1984/85 to about \$1,700 million in 1986/87.

## SUMMARY OF FORECASTS

(annual percentage changes of annual totals or averages)

March Years	Forecasts			
	1984	1985	1986	1987
<b>REAL EXPENDITURES ON GDP</b>				
Consumption	2.9	3.9	- 1.0	- 1.6
Gross Fixed Capital Formation	1.2	- 2.1	10.5	- 16.7
Final Domestic Expenditure	2.4	2.5	1.6	- 5.6
Stockbuilding <sup>1</sup>	0.1	3.0	- 2.7	0.7
Gross National Expenditure <sup>2</sup>	1.7	6.6	- 1.1	- 4.7
Exports of Goods and Services	10.3	7.5	7.1	0.8
Imports of Goods and Services	- 0.4	12.7	1.2	- 6.2
Expenditure on GDP <sup>3</sup>	5.3	4.8(P)	0.9	- 2.0
<b>PERSONAL INCOME</b>				
Personal Income	4.0	12.2	12.8	12.2
Less Income Tax	1.4	7.2	31.9	3.6
Personal Disposable Income	4.8	13.8	6.9	15.6
Consumer Price Index (average)	5.1	8.7	14.4	11.1
Real Personal Disposable Income	- 0.3	5.1	- 6.8	4.1
<b>GOVERNMENT BUDGET TRANSACTIONS</b>				
Expenditure	12.4	7.5	15.5	12.2
Receipts	6.5	12.2	21.2	9.1
Balance Before Borrowing (\$m.)	- 3,101	- 2,784	- 1,580	- 2,350
<b>EXTERNAL SECTOR TRANSACTIONS</b>				
Current Credits <sup>4</sup>	17.5	24.3	9.5	7.5
Current Debits <sup>4</sup>	9.1	33.3	7.3	0.5
Current Account Balance (\$m.) <sup>5</sup>	- 1,613	- 2,697	- 2,760	- 1,700
<b>EXTERNAL TRADE PRICES</b>				
Export Price Index	7.6	17.2	0.0	6.0
Import Price Index	7.2	19.3	4.9	5.7
Terms of Trade — % change	0.3	- 1.5	- 4.7	0.3
<b>PRICES</b>				
Consumer Price Index <sup>6</sup>	3.5	13.4	11.0	14.4
<b>EMPLOYMENT (full-time)<sup>6</sup></b>				
	0.7	3.5	1.1	- 0.1

P Provisional

<sup>1</sup> Percentage point contribution to growth in GDP

<sup>2</sup> Includes a statistical discrepancy

<sup>3</sup> Unofficial series. Differs from the Statistics Department's index of real GDP which measures increments in production

<sup>4</sup> SNA basis

<sup>5</sup> Balance of Payments basis

<sup>6</sup> March quarter to March quarter

## Prices

The consumer price index forecasts are similar to the previous set with the annual inflation rate forecast to be about 11 per cent for the year to March 1986 and 14 — 15 per cent for the following year. The Goods and Services Tax (GST) contributes just under 5 percentage points to the latter figure implying an 'underlying' annual inflation rate for 1986/87 of less than 10 per cent.

## Employment

Full time employment is forecast to grow by 1 per cent over the year to March 1986 but to remain almost unchanged over the March 1987 year.

## Government Accounts

The budget deficit should be close to \$1,600 million for the year to March 1986, before rising to about \$2,350 million in 1986/87. The recently announced tax package adds an estimated \$1,100 million to the 1986/87 deficit, but has a considerably smaller impact in subsequent years. This pattern occurs because the Government will collect considerably less than a full six months' GST revenue in the first six months of operating the new tax. The general downturn in activity in 1986/87 also contributes to the expected temporary worsening in the fiscal position.

## Notes

1. These predictions are not adopted as official Reserve Bank forecasts by the Bank's Governors and Board. They are used extensively within the Bank however, to complement other available information.
2. The above forecasts are based on a no policy change assumption — no allowance is made for possible government policy reactions to the developments portrayed and to the extent that such policy reactions occur, some or all of the predictions may be altered.
3. 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 secondly from forecasters' assumptions with respect to projections of exogenous variables and technical adjustments.

## Government Borrowing Programme for 1985/86

Finance Minister Roger Douglas, on 5 December 1985, released details of the Government's borrowing programme for the remainder of the current financial year.

Mr Douglas said that the full year stock tender programme would be for \$2.5 billion. Approximately \$1.9 billion had been raised to date, which meant that the two remaining tenders, scheduled for 12 December 1985 and 23 January 1986, would need to raise a further \$600 million.

Mr Douglas said that the public debt programme for this financial year was not affected by the modifications

to liquidity management policy which had been announced earlier in the week. The Government remained committed to fully funding net public sector injections and the stock tender programme was being maintained in line with this.

Reserve Bank open market operations would be carried out prior to 1 April 1986 as required to allow an appropriate adjustment to the level of primary liquidity under the new discount arrangements. The timing and amount of these operations would be advised to the market as the rest of the 1985/86 financial year progressed.

The debt programme was based on an assumed fiscal deficit for 1985/86 of \$1.6 billion. Regarding the Reserve Bank influences, Mr Douglas said that an allowance had been made for the possible transfer of the Dairy Industry Reserve Account to the private sector. This account currently had a credit balance of \$162 million so that an injection of liquidity would be involved when the account was transferred. This matter was not yet finalised but the Minister said that it had been allowed for in the stock tender programme in the event that the transfer went ahead prior to the end of March.

Should this prove not to be the case, then Reserve Bank open market operations would be adjusted accordingly. Mr Douglas said that the Bank's operations would also take account of any new information which came to hand regarding the other liquidity influences, including the fiscal deficit, over the remainder of the financial year.

## Monetary and Credit Aggregates

The Governor of the Reserve Bank, Mr Spencer Russell, on 26 November 1985, released provisional figures for the monetary and credit aggregates as at the end of September 1985. Mr Russell said that there had been a slowing in the rate of growth of both the broad money and credit aggregates during the September quarter, which reflected the effect of the Government's firm monetary policy stance. Nevertheless, Mr Russell warned against reading too much into movements in the aggregates at present in view of the major changes which were still taking place in the financial sector.

The provisional statistics indicated that, during the year to September 1985, the broad money supply (M3) increased by 19.1 per cent compared with the 22.2 per cent rise recorded in the year to June 1985. Although the annual growth rate remained high, the increase in seasonally adjusted terms over the September quarter was significantly slower, at 3 per cent compared with average growth over the previous four quarters of around 5 per cent. Mr Russell said that a declining trend in M3 growth was also evident in recent monthly seasonally adjusted changes, which had declined from a peak of 3.3 per cent in June to 1.6 per cent, 1.4 per cent and 0.8 per cent in July, August and September respectively.

The narrow money aggregate (M1) continued to grow slowly, with an annual growth rate for the year to September 1985 of 8.4 per cent compared with 8.9 per cent for the year to June 1985. In seasonally adjusted terms M1 is estimated to have increased by only 1.3 per cent over the September quarter. However, Mr Russell noted that this slow growth primarily reflected a substitution of transaction balances into interest-

earning call deposits outside the definition of M1, which meant that growth in the narrow money aggregate was probably overstating the degree of tightness in monetary conditions at present.

Private Sector Credit (PSC) increased by an estimated 23.8 per cent, in the year to September 1985, up from the 22.7 per cent increase recorded in the year to June 1985. However, Mr Russell said that the quarterly and monthly seasonally adjusted changes indicated that there had been some slowing in credit growth during recent months. PSC increased by 4.1 per cent (seasonally adjusted) over the September quarter, compared with quarterly increases of almost 6 per cent over the previous three quarters. Although the quarterly pattern of PSC growth had been affected by the recent changes in the financial system, the monthly statistics confirmed that there had been a slowdown in credit growth. Mr Russell said that the monthly seasonally adjusted growth rates had declined from 2.9 per cent in July to 1.6 per cent and 0.7 per cent in August and September respectively. The increase during the month of September 1985 was the lowest recorded since August 1984.

Regarding the September estimates, Mr Russell said that although the annual growth rates in both the broad aggregates remained too high, the latest monthly statistics had shown that the trend was in the right direction. In addition, both aggregates were currently being distorted by the effects of deregulation on the financial sector. The Government continues to maintain a firm monetary policy stance, based on fully funding net public sector liquidity injections. This will in time lead to a further slowing in growth of the monetary aggregates.

### Treasury Bill Tenders and Open Market Operations

The bank strike at the end of October delayed the processing of government transactions, and as a result the normal end of October tax flows to government did not impact on the system until the second week of November. However, strong public sector injections during the first three weeks of November more than offset these withdrawals and resulted in a higher average level of cash balances in the system in November than in previous months. In the final week of the month, tax flows to government resulted in \$53 million of securities being discounted over the period 26 — 29 November.

\$465 million of Treasury bills were sold by tender during November. Of these, \$200 million were December maturities, \$105 million were January maturities, \$30 million were February maturities and \$130 million were March maturities. The choice of maturities reflected the Bank's desire to match Treasury bill maturities with forecast liquidity withdrawals from the system.

The Reserve Bank conducted open market operations on ten occasions during November and sold \$495 million of Treasury bills. On 7 and 11 November \$80 million of December bills were sold in response to strong cash injections and on 14 and 15 November a further \$150 million of bills were sold to absorb some of the injections resulting from maturing government securities and government stock interest payments. On the five days 18 — 22 November continued net public sector injections allowed \$215 million of bills to be offered to the market and on 28 November a further \$50 million of bills were sold.

Stock settlements in November totalled \$308 million, \$235 million was received for stock sold in Tender 23 and \$73 million for stock sold in Tender 24. In line with past months, a large proportion of the Tender 23 settlements were received on 15 November, the final day for Tender 23 settlements.

Primary liquidity began the month at a level of \$1,620 million and had increased to \$1,921 million by 14 November. On 15 November \$371 million of government stock maturing in May 1986 entered primary liquidity and the aggregate rose to \$2,191 million. Net public sector spending continued to increase primary liquidity and it steadily rose to \$2,556 million on 25 November. End of month tax withdrawals to government decreased the level of primary liquidity to \$2,371 million on 29 November.

### TREASURY BILL TENDERS AND OPEN MARKET OPERATIONS

#### Treasury Bill Tenders

Tender	Amount Offered \$m	Term	Amount Sold \$m	Weighted Average % Rate
41	Nil			
42	50	28 days	50	20.004
	100	42 days	100	20.057
	50	119 days	50	19.708
43	75	35 days	50	20.18
	50	63 days	75	19.902
	50	112 days	50	19.956
44	30	56 days	30	20.082
	30	84 days	30	20.018
	30	105 days	30	19.773

#### Open Market Operations

	Amount Offered \$m	Term	Amount Sold \$m	Amount Purchased \$m
7 Nov. Treasury Bills	50	36 days	50	—
11 Nov. Treasury Bills	30	32 days	30	—
14 Nov. Treasury Bills	25	47 days	25	—
	50	117 days	50	—
15 Nov. Treasury Bills	25	27 days	25	—
	50	116 days	50	—
18 Nov. Treasury Bills	50	25 days	20	—
		112 days	30	—
19 Nov. Treasury Bills	25	24 days	25	—
20 Nov. Treasury Bills	50	63 days	10	—
		114 days	40	—
21 Nov. Treasury Bills	50	63 days	14	—
		111 days	36	—
22 Nov. Treasury Bills	40	63 days	4	—
		110 days	19	—
		111 days	17	—
28 Nov. Treasury Bills	50	33 days	3	—
		99 days	47	—