

MONETARY POLICY IN NEW ZEALAND

Introduction

The past year has seen substantial changes to the conduct of monetary policy in New Zealand.¹ These have included the removal of all controls on domestic interest rates, removal of virtually all other direct controls on financial institutions' operations including ratios and lending guidelines, the implementation of a new liquidity management package, the removal of exchange control and the floating of the New Zealand dollar. An earlier, but closely related development was the change in September 1983 from a tap issue to a tender method of selling ordinary Government stock.

Taken together, these measures represent a fundamental shift in the way monetary policy is implemented. This article describes the background to and the reasons for this change and outlines the methods by which monetary policy will be operated in the new environment.

A closely related topic is liquidity management policy. The recent changes in that area were discussed in greater detail in an article in the *May Bulletin*.

Monetary Policy Objectives and the Institutional Background

The ultimate objective of monetary policy is the maximisation of non-inflationary economic growth. However, both the intermediate policy objectives through which the Government seeks to achieve that aim and the instruments which are used have altered substantially over the past two decades. This has reflected two general experiences which New Zealand has shared with many overseas countries.

First, there was a marked change in economic circumstances which in turn dictated a shift in the focus of policy. Up until the 1970s, New Zealand experienced

a period of relative economic prosperity, with reasonable, if moderate, rates of economic growth, low unemployment and relative price stability. The emergence of inflation as a major problem for economic policy in the mid-1970s saw greater emphasis being placed on the need for monetary policy to limit growth in the monetary and credit aggregates. This occurred because medium term control of money and credit growth rates was seen as being necessary to achieve a sustained reduction in inflation. In an inflationary environment, appropriate interest rate levels for achieving the ultimate policy objectives became uncertain. However, as argued in the next section, although this emphasis on monetary control became more prominent in government policy statements in the 1970s, it often came into conflict with concerns about holding interest rates to below market levels.

The second development which influenced the direction of policy over this period was increased sophistication in the financial sector. Prior to the 1970s, the financial sector was dominated by the trading banks and to a lesser extent the savings banks. Financial markets outside these institutions were more limited than today and it was possible for the authorities to exert an apparent degree of control over interest rates and/or money and credit growth by directly regulating the operations of a few central financial institutions.

The general process of financial innovation saw the development of new instruments and new markets, which in turn rendered the implementation of monetary policy through direct controls increasingly ineffective. This was reflected in the process of disintermediation, by which attempts to control one sector of the financial system rapidly led to the development of new instruments and markets outside the scope of the controls. In addition, increased integration of the New Zealand financial sector into world markets further complicated the task of achieving monetary policy objectives by way of direct controls over the operations of New Zealand institutions.

¹ A brief chronology of the major monetary policy measures implemented since July 1984 is provided in the box.

CHRONOLOGY OF MAJOR MONETARY POLICY MEASURES

JULY 1984 — MARCH 1985¹

18 July 1984

- New Zealand dollar devalued by 20 per cent.
- Removal of the controls on lending and deposit interest rates which were introduced over the last three years.
- Marginal ratio applicable to finance companies removed.

24 July 1984

- Reserve Bank discount margins doubled across all maturities.

15 August 1984

- Access to Reserve Bank discount window and to the Bank's portfolio of short-dated government securities opened to all persons.

30 August 1984

- Removal of two longstanding controls on interest rates:
 - (a) '30 day rule' which prevented payment of interest on trading bank deposits of less than 30 days;
 - (b) restrictions limiting the interest rate payable on ordinary savings accounts to a maximum of 3 per cent.

31 August 1984

- Credit guideline of 1 per cent per month removed.

21 December 1984

- New liquidity management package announced, including closure of the Reserve Bank discount window for stock of more than six months to maturity.
- Exchange control relaxed.

7 February 1985

- Compulsory ratios on financial institutions abolished.

4 March 1985

- Exchange rate floated.

¹ For more details see the Economic Chronology in the January *Bulletin* and the Economic Notes Section in subsequent issues.

Monetary Policy Prior to July 1984

In order to understand the significance of recent policy measures, it is necessary to examine briefly the means by which monetary policy was implemented in the decade prior to July 1984.

The main features of monetary policy over the last ten years have been as follows:

1. A variable reserve asset ratio applied to the trading banks and fixed (but occasionally varied) public sector security ratios applied to most non-bank financial institutions.
2. Administratively determined interest rates on short and long term government debt, primarily issued through periodic cash loans or more recently on a tap basis.
3. An open discount policy, by which the Reserve Bank stood ready to buy (and sell) government

paper of any maturity on demand and at a price which was changed at relatively infrequent intervals.²

4. Varying forms of direct controls over domestic interest rates, used most extensively during the periods 1972–75 and 1982–84, and to a lesser degree in the intervening years.
5. Periodic announcements of guidelines for growth in lending by financial institutions.
6. A comprehensive system of exchange controls on outward capital movements.
7. A pegged exchange rate.

An important factor influencing monetary conditions over this period was a sharp increase in both the size and volatility of injections into financial institutions' reserves arising from the Government's fiscal deficit. In the policy framework that operated, monetary control could only be achieved either by limiting the growth in financial institutions' reserves (and therefore the potential for institutions to expand their balance sheets), or by effectively locking the increased reserves in by tightening ratio policy. In the event, the Government was not prepared to use either policy except for brief periods since both policies ultimately implied upward pressures on interest rates if they were to remain effective.

As a result, monetary control over the decade leading up to July 1984 developed around the Government's low interest rate policy. This was most clearly the case during the periods of direct interest rate controls, but also applied to some extent during the intervening period from 1976 to 1981 when many private sector interest rates were free from direct Government regulation. Throughout this period, the interest rates on Government debt instruments were generally held below market rates with the result that debt sales outside of the 'captive' institutions (which were subject to ratio requirements) were often relatively small.

The consequences of this policy for the Government's control over domestic monetary conditions can best be illustrated with reference to figure 1, which compares real money and credit growth rates (annual growth rates in the broad money supply, M3, and in credit extended to the private sector by M3 institutions, PSC, both deflated by the Consumers Price Index) over the period March 1977 to March 1985. The main feature of this period was the high degree of volatility in both monetary and credit growth, with frequent swings between rapid and relatively slow (occasionally negative) real growth rates. In addition, the average annual growth rates for both aggregates were rather high, particularly for PSC which averaged 6.3 per cent in real terms compared with 2.3 per cent for real M3 growth.

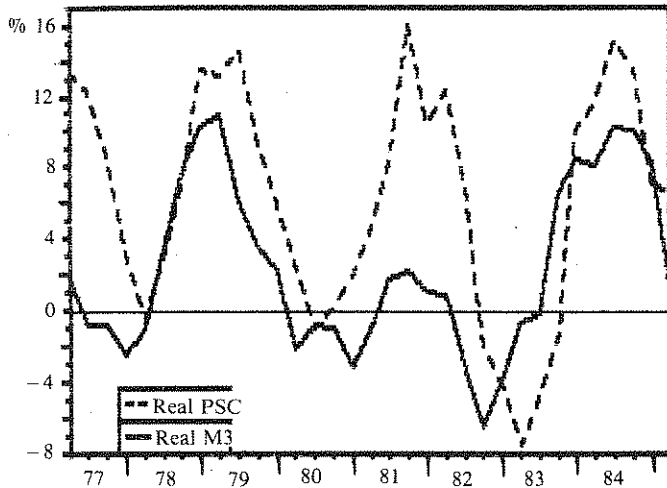
The factors behind this erratic pattern of monetary growth can be seen in a comparison (provided in figure 2) of recent movements in the broad money supply measure, M3, with developments in the major influences on M3 growth; namely:

1. The net public sector injection into reserves arising from the combined effect of the Government's fiscal deficit and Reserve Bank transactions with the private sector.

² Refer to the article "Liquidity Management Policy" in the May *Bulletin* for further details.

2. The net withdrawal of reserves arising from sales of government debt to the non-M3 sector.
3. The net injection (withdrawal) of reserves arising from a surplus (deficit) on the private sector's overseas exchange transactions.
4. The net increase in lending to the private sector by M3 institutions.

Real M3 and Private Sector Credit
(annual percentage change)

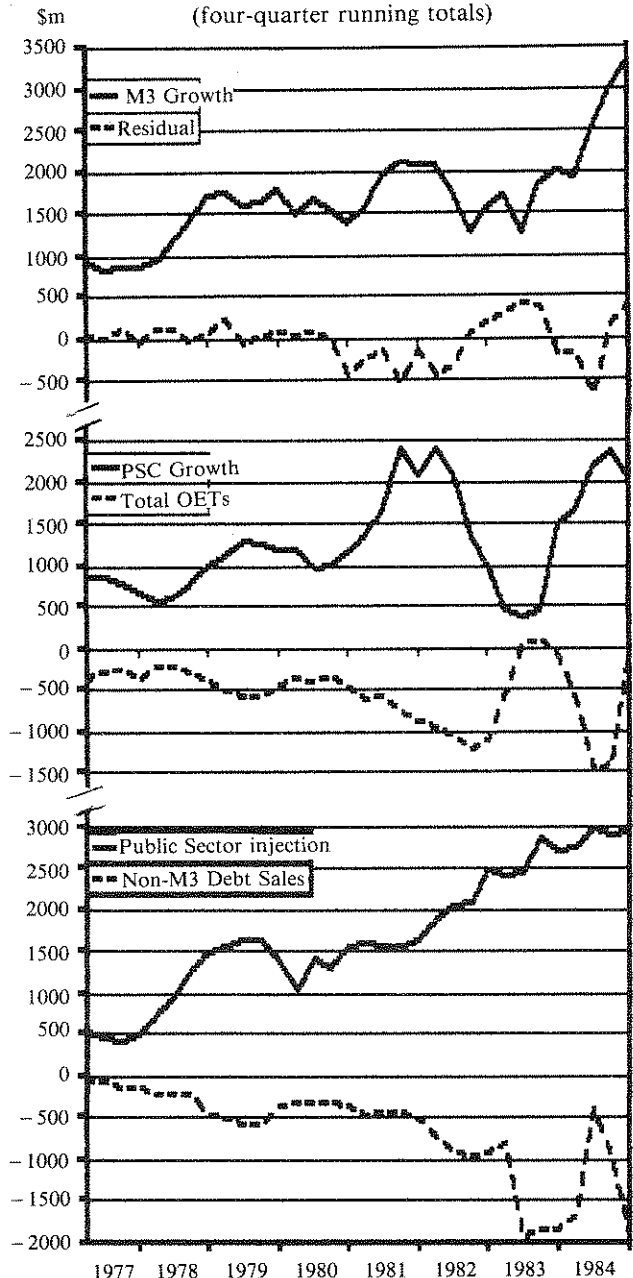


One feature of this comparison is the generally low level of debt sales to non-captives (all M3 institutions were subject to reserve ratio requirements over this period) in relation to the net public sector injection. The only significant exceptions were certain successful debt issues which were aimed specifically at the retail market; most notably, the first issue of Government Savings Stock launched in October 1978, strong sales of Inflation Adjusted Savings Bonds over 1981 and 1982 in particular, and the first issue of Kiwi Savings Stock launched in March 1983. The failure to sell sufficiently large volumes of debt to the non-M3 sector on a sustained basis meant that the public sector was generally a major net source of injections to the reserves of the financial sector over this period.

A second feature is the close correspondence between cycles in private sector credit expansion and in the deficit on overseas exchange transactions over this period. The main influence on both variables tended to be the state of economic activity, with periods of buoyant domestic expenditure levels being associated with rapid credit expansion and a deterioration in the current account balance as a result of strong growth in imports. The existence of exchange control on capital account transactions meant that private sector portfolio adjustments to any build-up in liquidity associated with a fiscal injection tended to occur with a lag, through the impact on domestic activity levels and therefore import demand, rather than more rapidly through a capital outflow.

Monetary policy, on the other hand, appears to have had relatively little impact in constraining the supply of credit. In the absence of an active debt sales policy, the effective restraint of credit growth would have required more vigorous use of direct controls such as ratio policy. However, as already noted, active use of ratio policy to restrict the growth in lending by financial institutions was rare during this period. In addition to

M3 and Influences 1977-1984
(four-quarter running totals)



Government concerns over the interest rate consequences, the reluctance to exploit ratio policy also stemmed from a concern to minimise any adverse effects on the availability of mortgage finance for housing. This reflected the fact that the institutions which were subject to public sector security ratios were generally also the institutions who were most involved in lending for housing. As a result, only the finance company ratio was adjusted to any significant degree over this period.

The reserve asset ratio applied to trading banks was adjusted monthly over quite a wide range, but this primarily reflected technical adjustments to allow for the changing level of banking system reserves.³

3 For a fuller discussion of the operation of the reserve asset ratio system, see the articles in the October and November 1981 *Bulletins*.

Throughout much of the period, the free reserves margin that was adopted represented a 'neutral' policy stance, in the sense that the ratio was set each month at a level the trading banks were expected to be able to meet, after allowing for potential forecast errors. The main exceptions to the neutral stance occurred in 1979, when the free reserves margin was reduced for a period from \$100 million to zero, and in 1984 when a margin as low as negative \$100 million was adopted in an effort to slow bank lending.

With a few notable exceptions then, monetary policy over the last decade has been largely impotent as an influence on domestic monetary conditions. This reflected both the inadequacies of direct controls as a monetary policy instrument in the face of increasing sophistication in the financial sector, and also the frequent conflict between the policy objectives of low interest rates and control of the monetary aggregates. Too often the objective of monetary and credit control was subordinated to the Government's objective of achieving a low interest rate structure. As a result, although occasional periods of considerable monetary tightness were experienced over this period, these generally represented manifestations of the automatic adjustment mechanism operating through a balance of payments deficit, rather than direct consequences of firm monetary policies adopted by the Government. The foreign exchange drain experienced in the lead up to July 1984 was an example of this process. However, on that occasion the strong market expectations of a devaluation and tight controls on domestic interest rates in place at the time meant that the outflow was both larger and more concentrated than had been experienced in previous years.

The Background to Monetary Policy Measures Taken Since July 1984

The various monetary policy measures which have been implemented by the Government since July 1984 should be viewed as part of an overall package which has two broad objectives:

1. At a *macroeconomic* level, a desire to put in place a framework for monetary policy which gives the authorities effective control over domestic monetary conditions.
2. At a *microeconomic* level, a concern that Government intervention in the area of monetary policy should be implemented in a way which encourages the development of an efficient financial sector.

The background to recent changes in the method by which monetary policy is implemented is discussed below under these two broad headings.

Monetary Control

As noted earlier, the inflationary experience of the 1970s led to much greater recognition, both in New Zealand and overseas, of the importance of monetary control for anti-inflationary policies in the medium term. In particular, the need to limit monetary aggregate growth rates over time in line with the prospective growth in economic activity is now widely accepted. As a result, the rate of increase in the monetary and credit aggregates has tended to take on

greater prominence as an intermediate objective of monetary policy than other indicators such as interest rates or exchange rates. A major difficulty with using the latter variables as intermediate objectives of monetary policy is the need to distinguish 'real' movements from observed changes in 'nominal' rates, which is particularly hampered by the absence of a reliable measure of inflationary expectations.

Most monetary authorities have chosen one or more monetary or credit aggregates as their intermediate objective in the belief that there is a reasonably stable relationship between monetary growth and prices or nominal income. However, it is also recognised that real money demand can vary, particularly during periods of rapid structural change. This means that the appropriateness of the monetary growth objective has to be continually reassessed in the light of prospective developments in the velocity of circulation.

In addition, it is presently necessary to adopt an eclectic approach to monetary policy, and to assess money and credit growth rates in light of developments in the other indicators. This arises because of difficulties in interpreting the monetary aggregates which have arisen, partly as a consequence of the general process of financial innovation, but also following the major financial reforms introduced over recent months. These developments are likely to result in substantial changes in both the market shares of the various institutional groups and the methods by which financial transactions are undertaken. These changes can be expected to distort the relationships between the traditional monetary aggregates and other economic variables for some time to come.

Interest Rates

Flexible interest rates are essential for any effective strategy of monetary control in the medium term. Interest rates represent the cost of using money and are an important mechanism by which changes in the supply of and demand for money influence expenditure decisions throughout the economy. Economic theory suggests, and past experience has demonstrated, that it is not possible to simultaneously control both interest rate levels and money and credit growth for any length of time.

Clearly such control may be possible for short periods, as the experience with KSS 1 in 1983 demonstrated. If the Government is prepared to market a competitive public debt instrument while restricting private sector interest rates, or to compel financial institutions to increase their lending to the Government through a tightening of public sector security ratios, then it may achieve a slowing in monetary growth while still maintaining a degree of control over private sector interest rates. The difficulty with either of these approaches is that they operate on the supply of money and rely solely on the rationing of credit to influence the public's expenditure and investment decisions. Controlling the general level of interest rates below their free market level will discourage savings and encourage people both to borrow for current consumption, if they can obtain the credit, and to invest in real rather than financial assets. The maintenance of this situation for any length of time will result in the channelling of funds through uncontrolled intermediaries and the development of ways around the controls. This will serve to weaken the ultimate effectiveness of monetary policy as an influence on the level of expenditure in the economy.

Public Debt Policy

With the removal of most interest rate controls in July 1984 the extent of Government regulation of the financial sector was largely restored to the level which had existed up until late 1981. However, an important feature which distinguishes monetary policy since July has been the Government's willingness to pursue an active public debt policy. Associated with this has been a need, following the removal of interest rate controls, to pay competitive rates of interest on Government debt instruments.

The primary role of public debt policy from a monetary policy perspective is to offset the liquidity injections resulting from the Government's fiscal deficit, the Reserve Bank (as a result of its transactions with the private sector) and maturing public debt instruments. The objective is to limit the growth in liquid reserves of financial institutions, thereby restricting their ability to expand credit. Thus, there are two important requirements of an active public debt policy. First the quantities of government debt sold should be directly under the control of the authorities and secondly the debt instruments used should be relatively illiquid. This means that it should only be possible for the private sector to convert the debt into cash at a penal cost or not at all.

The most significant change in this regard was the move from a tap to a tender method of selling government stock in September 1983. This effectively allowed the authorities to determine the quantity and maturity structure of public debt sales directly, based on expected funding requirements and monetary policy objectives, provided that they were willing to accept the interest rate implications of that debt sales programme.

This approach contrasted with the previous tap issue system, under which the Government determined the interest rates it was prepared to offer on its various debt instruments and the market determined the take up of those instruments (subject to the requirement on financial institutions to meet their ratio obligations). In these circumstances, domestic liquidity conditions were determined for the most part by the private sector and not by the monetary authorities. In particular, financial institutions were free to determine the maturity structure of their reserve holdings according to their assessment of the likely future demand for loans and therefore their likely cash requirements. This particularly applied to the trading banks, which had a variable ratio requirement. For any given injection of reserves from the Government sector, for example, the banks could decide to what extent they should remain liquid by investing in Treasury bills, which would be readily available to fund subsequent lending growth, rather than longer term government stock.

This situation still effectively applied over the period September 1983 — July 1984, despite the introduction of the tender system. From tender number 3, the Government effectively adopted an upper limit on the yields which were acceptable on both ordinary and (subsequently) index-linked stocks. The effect of these limits was that the quantity of stock sold often fell well short of the amount being sought for monetary control purposes. From July 1984, on the other hand, the tender system operated as originally intended, with the size of the debt sales programme being determined by the Government's monetary policy objectives (although some bids were rejected in the two tenders immediately following the July election).

The move to a more active public debt sales programme through the stock tenders has resulted in a reduced monetary policy role for retail debt sales. As already noted, when the Government was not prepared to offer competitive rates of interest on its wholesale debt instruments, significant debt sales to the non-institutional sector were achieved only through occasional offers of competitive retail instruments.

Use of retail debt policy as a major instrument of monetary policy had some major drawbacks:

1. As the retail deposit market became more sophisticated, it became increasingly difficult for the Government to sell large volumes of retail stock unless financial institutions were prevented from competing with the Government by the use of interest rate controls (such as in the case of the first Kiwi Savings Stock issue, in the June 1983 quarter). Such a policy may be effective in the short run, but over time funds will increasingly be channelled into uncontrolled areas.
2. Because of the inconvenience of investing with the Government, due to its lack of an established branch network, Government retail rates had to be above private sector rates in order to achieve significant sales.
3. In addition to offering a competitive interest rate, successful retail issues have generally had to offer relatively low cost early redemption facilities to be attractive to the public. Thus, although some retail issues as the first Savings Stocks and the first issue of Kiwi Stock succeeded in reducing financial institutions' reserves and slowing M3 growth, they had a much more limited impact on private sector liquidity. This has been reflected in the high redemptions of such instruments which have been recorded following subsequent rises in interest rate levels.
4. Although IASBs proved successful in attracting and retaining funds, this success reflected the extremely high effective rate the Government was paying due to the inflation adjustment being non-taxable, and the early redemption facility available to many holders.

In contrast, the sale of medium term debt through the stock tenders has the effect of reducing the overall liquidity of the private sector. Although the stock is freely transferable, and therefore may represent a reasonably liquid instrument from an individual holder's point of view, it does not represent a source of liquidity for the private sector as a whole, which can achieve a net reduction in its holdings of government stock only through sales either to overseas holders or to the Reserve Bank. The ability of the private sector to influence its own liquidity position through foreign exchange transactions has now been removed with the move to a floating exchange rate, while the availability of the latter option is dependent on Reserve Bank discount policy.

Reserve Bank Discount Policy

The role of liquidity management policy and the recent changes in this area were discussed in an article in the *May Bulletin*. The main aspect of relevance here is the Reserve Bank's discount policy i.e. its willingness to supply liquidity in the form of Reserve Bank cash by standing ready to purchase government securities on

demand, and under terms and conditions normally specified in advance.

The Bank's discount policy was fairly open for many years, in the sense that prior to December 1984, and with the exception of a brief period in 1983, the Bank was prepared to discount government securities of any maturity (and at a price which tended to reflect a concern to minimise the interest rate pressures associated with short term fluctuations in liquidity). The resulting ability of the private sector to monetise its government security holdings weakened the monetary policy impact of selling medium term government debt.

As from 24 December 1984, the Reserve Bank has been prepared to discount only government securities with less than six months to maturity.⁴ In this way, the Bank's discount policy in the new environment can be seen as supporting the main thrust of monetary policy which is implemented through the stock tender programme.

Ratio Policy

The arguments for the abolition of ratio requirements were discussed in detail in an article in the April *Bulletin*. Briefly, the effectiveness of ratio policy as a monetary policy instrument relies on the same transmission mechanism as public debt policy — operating through flexible interest rates on the availability and cost of credit. Beyond the short term, ratio policy does not represent a device which somehow avoids the fundamental requirement that competitive rates of interest be paid on government debt and that interest rates be flexible if monetary control is to be maintained.

Exchange Rate Policy

Following the removal of interest rate controls and the adoption of a more active debt sales programme from July 1984, the Government moved to a position of using the stock tenders to fully offset the liquidity injections arising from the public sector's transactions with the private sector. However, this still did not provide the authorities with adequate control over the level of domestic liquidity as the private sector retained access to a ready source of liquidity through the foreign exchange window. To the extent that public debt sales put pressure on domestic liquidity, this tended to push up local interest rates and in turn attracted inflows of foreign exchange which the Reserve Bank stood ready to purchase in exchange for New Zealand dollars. Following the removal of interest rate controls in July, capital flows quickly became sensitive to relative interest rate movements, and this substantially reduced the authorities' ability to control domestic liquidity.

The floating of the exchange rate on 4 March 1985 alleviated this problem and so provided the Government with the potential means for greater control over domestic liquidity conditions. Although, from an individual's point of view, borrowing offshore is still an alternative to raising funds on the domestic market, this does not provide a source of liquidity for the private

sector as a whole. With the Reserve Bank no longer prepared to buy or sell foreign exchange on demand, any individual wishing to exchange foreign currency for New Zealand dollars must find someone else who wishes to purchase that foreign currency, thereby leaving domestic liquidity unchanged.

Efficiency Considerations

In addition to the objective of establishing a framework for effective monetary control, a second principle underlying the various initiatives implemented since July 1984 has been that monetary policy should encourage the efficient functioning of the financial sector.

The financial sector performs a number of functions for the economy as a whole, including the provision of the payments mechanism, provision of a repository for people's savings, the mobilization of those savings for investment, and the allocation of risks to those most able and willing to bear them. In general, the financial sector is likely to perform these services most efficiently, or at minimum cost to the rest of the community, if financial institutions have the flexibility to adjust their behaviour according to changing market conditions and are relatively free to compete with each other across the spectrum of financial services.

This does not mean that there is no place for Government intervention. In particular, the potentially significant externalities associated with failure of payments institutions in an imperfect information environment may warrant the establishment of minimum standards of operation and minimum disclosure requirements. There may also be a role for Government in assisting particular disadvantaged sections of the community. However, the efficiency objective does mean that monetary policy operations, which are directed more at macroeconomic variables such as total spending and activity levels, should be conducted in a way which as far as possible is neutral in its impact on the financial sector. That is, monetary policy operations should not restrict the ability of financial institutions to compete freely for available business. Nor should they promote or inhibit the growth of one group of financial institutions relative to another.

This philosophy can be seen to underlie a number of the recent monetary policy initiatives:

1. The removal of generalised controls on lending and deposit interest rates, which impacted unevenly on different groups of financial institutions.
2. The removal of longstanding controls preventing trading banks from paying interest on deposits of less than 30 days (including cheque accounts) and savings banks from paying more than 3 per cent on ordinary savings accounts.
3. The increased emphasis placed on selling government debt by tender, which is neutral in its impact on different sectors of the economy, and the reduced emphasis accorded to retail debt instruments.
4. The availability of the Reserve Bank discount window to all market participants (subject only to certain administrative requirements).

⁴ Though the discount window had previously been open for all maturities, changes to the discount margin on 24 July 1984 had already made discounting stock with more than six months to maturity relatively penal, thereby reducing the effective liquidity of outstanding government stock.

5. The withdrawal of Reserve Bank approval of the four dealing companies operating in the official short term money market, and the associated 'lender of last resort' facility previously available to that market.
6. The withdrawal of the compensatory deposits scheme which was available to trading banks alone.
7. The removal of all compulsory ratio requirements on financial institutions.

The Future Operation of Monetary Policy — An Overview

The various changes to the instruments of monetary policy outlined above represent a major shift in the focus of policy away from direct control over interest rates and towards a greater emphasis on the control of the monetary aggregates. The closure of the foreign exchange window, and of the discount window for longer dated government stock, give the authorities greater control over the liquid reserves base of the financial system i.e. over those assets which are available to the private sector for settlement with the Reserve Bank. A measure of this reserves base, called primary liquidity⁵, has thus become an important operating target through which monetary policy influences growth in the broad monetary and credit aggregates.

The authorities can control primary liquidity by varying the amount of longer dated debt sold through the stock tenders, and this can be supported if necessary by Reserve Bank open market transactions. The amount sold will depend on the expected injections of liquidity arising from Government and Reserve Bank transactions and from claims on Government becoming discountable on demand at the Reserve Bank. By controlling primary liquidity, the authorities will in time gain a greater influence over the growth in financial institutions' balance sheets, and therefore over the monetary and credit aggregates.

These relationships will be rather tenuous in the short run. First, the variability inherent in Government expenditure and revenue patterns means that primary liquidity may fluctuate substantially over the course of a year, both because of normal short term fluctuations in the Government's accounts, but also because of the large degree of seasonality in Government revenue in particular. Monetary policy will therefore be aimed at stabilising primary liquidity on average over the course of a year, after allowing for these seasonal factors, rather than at achieving a particular average liquidity level over a shorter time horizon. Liquidity management policy may, however, be used at times to moderate shorter term liquidity fluctuations.

Secondly, there will be some variability in the relationship between primary liquidity and the broader monetary and credit aggregates over time. The main transmission mechanism by which changes in the liquidity base impact on the broader aggregates is through interest rates. A reduction in primary liquidity (or alternatively an increase in demand for primary liquidity with no change in the supply) will place upward pressure on short term interest rates as institutions compete more vigorously for available liquid assets. If this pressure is sustained then the higher short term rates

will spread to longer term borrowing rates. Clearly the extent to which this leads to a slowing in credit growth will depend on the degree of borrower resistance to the higher interest rates, and this may vary considerably according to the state of economic activity, business profitability and inflationary expectations. For institutions which choose to attract high quality borrowers, the transmission mechanism will also involve a tightening of (voluntary) credit rationing as those institutions attempt to keep lending growth in line with lower liquidity levels without recourse to higher interest rates.

Thus, even if primary liquidity were held relatively steady, on average over time, growth in the monetary and credit aggregates would still vary significantly in the short run. The extent of this variability, and the question of whether it may pose any difficulties for monetary control in the medium term can only be determined once more experience has been gained in the new operating environment.

Monetary Indicators and Targets

One implication of the above discussion is that it will now be more important for market participants to take account of the Government's intentions on the future direction of monetary policy when making business decisions. This requires a need for an understanding of the role which the various indicators play in the formulation of monetary policy.

With primary liquidity now being an important operating target for monetary policy, the Government's intentions for future movements in primary liquidity will provide an important signal as to the likely future state of monetary conditions. In general, it would be intended that a broad indication of the stock tender programme for the year ahead, together with the target for primary liquidity growth which underlies that debt programme, will be provided to the public at periodic intervals, probably at least half-yearly. Firmer indications of expected short term flows will be provided on a quarterly basis. In the case of the year-ahead projections it is important to note that the underlying forecasts of liquidity flows are often subject to considerable uncertainty; thus the intended path of primary liquidity may often be a better indicator of likely outcomes than the debt sales target itself.

As noted previously, interest rates and the exchange rate will remain important indicators of monetary developments in the new environment (and particularly for the operation of liquidity management policy). However, there are no specific policy objectives for either variable at present.

Furthermore, although control over monetary aggregate growth rates remains the intermediate objective of monetary policy, the Government, at this stage, has no specific target for growth in individual monetary or credit aggregates. In addition to the interpretation difficulties associated with deregulation, this also reflects the fact that the relationship between primary liquidity and the broad aggregates may not be precise in the short term. This is likely to be particularly the case in the period of transition to the new policy environment, as the Government has not yet had the opportunity to build up a long enough track record for its monetary policy. In the past, financial institutions found it profitable to compete vigorously with government security issues because they had learned

⁵ See discussion on p235 of the May *Bulletin*.

that aggressive public debt policies were generally not sustained for more than short periods. They were therefore able to avoid the need to adjust to a significant extent. It is only once these expectations have been altered that a closer relationship between public debt policy, M3 and the ultimate objectives of monetary policy is likely to be observed.

In this context, it should be noted that the recent changes to Reserve Bank discount policy mean that all government stock sold through the tenders now serves to reduce the liquidity of the private sector. Thus, it is of less significance for monetary policy in a medium term context whether the debt is sold to financial institutions or to the non-financial sector, since it cannot be subsequently monetised on demand. However, this split will still affect the monetary aggregates, and will depend on the extent to which financial institutions choose to compete with the Government. This, in turn, will be influenced by their expectations about the future course of monetary policy.

Conclusion

The past year has seen a major shift in the way monetary policy is implemented in New Zealand, away from regulation and direct controls on financial institutions' operations, and towards limiting growth in private sector liquidity through an active public debt policy. Though short term monetary control was achieved on occasions in the more regulated environment, various leakages and increased financial sophistication ensured that control was difficult to

sustain, particularly over a prolonged period of large fiscal deficits. Acceptance of the need for flexible interest rates and the floating of the New Zealand dollar will make it possible to achieve closer control over monetary growth in the medium term. At the same time it has enabled financial institutions to become free from direct constraints on their operations.

There will be a transitional phase as both the market and the authorities gain experience with operating in the new policy environment. New Zealand does not have a history of consistent application of firm monetary policies and, as a result, market expectations may take some time to adjust to the new environment.

Similarly, the focus on the liquidity base of the financial system is relatively recent, and historical experience therefore provides little guidance to the authorities as to how the private sector's demand for liquidity may vary throughout the year. Nor does it give much information about the lag relationships between liquidity developments and changes in the broader money and credit aggregates.

Nevertheless, the Government has demonstrated its determination to pursue a public debt policy consistent with the objective of stabilising primary liquidity over the course of the financial year, by absorbing the public sector injections to primary liquidity through the sale of medium to longer term government stock. Over time, this policy should ensure a substantial slowing in the rates of growth of the broad money and credit aggregates which will, in turn, allow interest rates to ease as medium term inflationary expectations are reduced. The short term path of this adjustment now depends on the rate at which private sector expectations respond to this policy stance.