ALTERNATIVE APPROACHES TO MONETARY MANAGEMENT

As part of the celebrations for the Bank's 50th Anniversary, Dr Charles Goodhart, Chief Adviser to the Bank of England, was invited to New Zealand to give a series of public lectures. Dr Goodhart kindly gave the Reserve Bank of New Zealand permission to publish his lecture in the *Bulletin*.

INTRODUCTION

During the course of the last two decades the interplay of the pressure of events together with the development of academic and informed thinking has led the major Central Banks of the industrialised world to experiment with various alternative methods of monetary management and control — different monetary regimes as they are termed in currently-fashionable analytical jargon. It is my purpose today to attempt to describe and to evaluate the working of these regimes.

THE MAINTENANCE OF CONVERTIBILITY

At the end of the 1960s, the major countries of the world still adhered to the Bretton Woods system of pegged but adjustable exchange rates. Under such a system, the main requirement and objective of the Central Bank is to maintain the value of the domestic money stock in some nearly-fixed relationship to some other external standard of value, that is to maintain the convertibility of domestic moneys, notes and deposits, at a fixed rate in relation to the external standard. In the 19th and early 20th centuries Central Banks had sought to maintain convertibility into some precious metal, silver or gold. Later on, convertibility was more often maintained in relation to some dominant currency, whether that was the deutschmark, pound sterling or dollar, or more recently, and fancier, in some cases to a basket of currencies.

In any case, the maintenance of the convertibility of the domestic money stock into an external standard of value has been the normal procedure for *all* Central Banks (with the important exception of the US Federal Reserve System) for the greater part of their history. During such periods this was their paramount objective. At an early stage they developed a primary instrument for achieving that objective; this was their ability to control and therefore to adjust interest rates. When a tendency for the value of domestic money to depreciate relative to the external standard of value occurs, an increase in interest rates will not only have a deflationary effect on domestic credit expansion, output and inflation, but will also attract capital inflows from abroad. Both historical experience and economic theorists of all schools agree that the medicine will work.

Nevertheless, the medicine is often unpalatable. Besides having the general *desired* effect of maintaining the internal value of the currency, and restraining inflation, an increase in interest rates not only adversely affects the level of output but also, and perhaps more important, its composition, with a particularly severe effect on activity financed by borrowing such as housing. This is politically unpopular.

In order to alleviate the adverse domestic consequences of such distributional effects on expenditures, while at the same time maintaining external convertibility, Central Banks have repeatedly been forced, often by outside pressure, to bring other more direct methods of control in support of, or even instead of, their traditional interest rate adjustments. Exchange controls provide, perhaps, the most common example. They operate, however, by impairing the ability of the ordinary private citizen to take full advantage of the external convertibility that is otherwise formally preserved. In addition, direct lending ceilings to limit and to redistribute domestic credit, and tariffs and export subsidies, are further mechanisms which can be used to try to maintain the convertibility objective at a generally lower level of interest rates than would otherwise be required. While in the short run the advantages of such direct controls may seem considerable, even self-evident, the inefficiencies and distortions that increasingly ensue, the longer such direct controls are kept in place, make their adoption questionable at all times.

Historical experience has abundantly demonstrated that the main threat to the maintenance of external convertibility and to price stability has come from governments being forced, usually as a result of war, defence expenditures, or the political unpopularity of taxation, to resort to the printing press, that is to an inflation tax, to finance their actions. Monetarists would add to the list of inflation-causing factors the siren-song of Keynesian support for deficit budgeting whenever output fell below some, often over-optimistic, full employment level.

The examples of countries being forced into inflation by the pressures of war, or by the attempt to maintain public sector expenditures well in excess of their political ability to finance through taxation, have been historically obvious, even dramatic. What has been a more nagging worry in the post-war world has been the attempts of government to encourage faster growth, or even just a recovery in output, by means of fiscal and monetary expansion to an extent that endangers the pegged exchange rate, unless a fairly savage dose of deflation is then applied. The problem then is that the relative inflexibility of labour and goods markets, that is of wages and prices, makes so much of the adjustment fall on employment and output rather than on wages and prices. Faced with an exchange rate out of line with equilibrium, which may have resulted in the first place from excessive political pressures, how strongly can, or should, a Central Banker argue for the defence of its current level, if that would require domestic adjustment of a severity, which might possibly threaten political consensus, and even social stability? But, if financial stability is not maintained at an early stage, will not an even more difficult spiral of exchange rate depreciation and worsening domestic inflation set in?

So, the maintenance of a regime of convertibility into an external standard of value, the historical commonplace for Central Banks, may sound easy. All it involves is varying interest rates inversely to the strength of the balance of payments. In practice, however, its conduct in the post-war world has involved continuing

arguments both on the weights to be placed on interest rates or direct controls as instruments, and on whether it is better to defend the existing exchange rate or to adjust its value to another level.

Despite these various difficulties the periods when the main industrialised countries of the world have jointly adhered to a generally fixed exchange rate system, that is the gold standard period, roughly from 1870 to 1913 and the Bretton Woods period, from 1945 to 1971, have been the outstanding occasions of world economic success, combining generally low inflation, with little inter-country dispersion around the mean (thus it is often now forgotten that in the 1950s and 1960s the UK was a relatively low inflation country), with relatively rapid growth, though the latter was neither steady over time and varied quite sharply between countries.

Why, then, did the major countries of the world abandon a system of proven success in 1971, without the excuse of a major war as in 1914? Of course, the success of the Bretton Woods period is clearer in hindsight: at the time the discipline entailed in the pegged exchange rate system was felt to be irksome. The British disliked it, because the stop-periods in the stop-go cycle, enforced in order to maintain the sterling exchange rate, were held to prevent the achievement of a satisfactorily faster rate of growth: the Germans disliked it because the maintenance of a fixed exchange rate forced them to accept the faster rate of inflation being generated in the US by the Vietnam War: the US disliked it because the pegged exchange rate system allowed other individual countries to shift their peg on competitive grounds against them but hardly allowed them, despite the high-level labours of the Smithsonian round, to adjust the dollar vis-a-vis everyone else: the French disliked it because it allowed the US too much leeway to finance the Vietnam War by running a current account deficit, since other Central Banks had to hold dollars after the closing of the gold window. Rather more generally, academic economic opinion had become opposed to pegged exchange rates, with a strong theoretical attachment to free floating.

There was, in addition, a second reason. The development of an international capital market, with improved communications, etc, was vastly increasing the volume and rapidity of cross-country capital flows, especially when the market smelled the chance of chasing a Central Bank facing a one-way option. In 1972 a second-rate sterling crisis, that hardly hit the headlines, was nonetheless sufficient to denude much of our own usable reserves in the UK within a fortnight. In earlier years the size of Central Bank reserves, relative to potential market flows, allowed the authorities to use intervention as the short-term adjustment instrument, allowing them more time to review whether, and by how much, a change in interest rates was required. The failure of Central Banks reserves to grow in line with the expending international capital market was, however, in some part the result of a conscious decision by policy makers to restrain such international reserves out of fear of its possible world inflationary consequence.

Anyhow, as the size of the international capital market grew, relative to Central Bank reserves, even to the extent these could be augmented by inter-Central-Bank co-operation with swaps, etc, the extent of reliance that could be placed on (sterilised) intervention declined, until it is now widely seen as an instrument of strictly limited usefulness. Under such circumstances the maintenance of exchange rate stability seems to imply a willingness to allow domestic interest rates to adjust rapidly to all shocks affecting the exchange rate, whether those shocks originate at home or abroad. The virulence of external shocks in the 1970s, notably the oil shocks, was, however, so great that it is debatable whether the fixed exchange rate system could have endured, even had there been a greater will to defend it. I shall review later whether there are currently any prospects for restoring such a system.

MONETARY TARGETS

The collapse of the Bretton Woods system was for several countries, including the UK, a semi-conscious rejection of financial discipline in pursuit of faster growth objectives. The experience of the years, 1972–1975, thereafter, however, confirmed the worst fears of those who claimed that the supposed trade-off between inflation and higher output was illusory, even possibly perverse, in all but the short-run. While there remains debate about the wider question of how far the oil shock of 1973 was purely sui generis, or itself an inevitable response to some large extent to more expansionary Western economic policies in 1971–1973, and about the division of responsibility for the resulting inflation to the oil shock or to expansionary policies, there was a general consensus that those countries which maintained a relatively more expansionary policy through that period, such as the UK and Italy, did worse generally, on both inflation and ultimately output, than those countries such as Germany that early on battened down the monetary hatches, and they subsequently had to reverse their relatively expansionary policies.

This experience pointed to an urgent need to establish an alternative bastion of financial discipline, to replace the exchange rate, as a constraint against over-expansionary policies, and as a guarantee against ever-worsening inflation and financial chaos. The case for the adoption of such an alternative domestic financial target, in the form of an intermediate monetary target, had long been pressed by monetarists. They argued that the medium-term stability of velocity; the close relationship apparent throughout history between an acceleration in prices and in monetary growth made a monetary target not only a necessary and sufficient guard against worsening inflation, but also a more efficient form of constraint than a pegged exchange rate, since it freed domestic monetary policy to control domestic inflation. Moreover, it was recognised that volatile expectations about future inflation made it increasingly difficult to use interest rates as a yardstick to judge the stance of monetary policy: the case for shifting the focus of attention for domestic monetary policy purposes from prices, in the form of interest rates, to quantities, in the form of growth rates of the monetary aggregates, seemed demonstrably established. Concerns over which monetary aggregate to choose and possible instabilities in short-run relationships between monetary aggregates, activity, inflation and interest rates were dismissed as second-order problems.

The general case for intermediate monetary targets was also accepted by many moderate Keynesians, at least outside the UK, partly on the grounds that velocity was sufficiently stable for monetary movements to represent a reasonable leading indicator of future movements in nominal incomes. In consequence, an interest rate adjustment that would restore monetary growth to its target path should also help to restore nominal incomes to its target path. In addition, the adoption of a monetary target not only allowed Central Banks to argue the case for adjusting interest rates on apparently objective grounds, but even in some cases

allowed them to operate in such a way, for example through some version of monetary base control, as to be able to claim that the resulting interest changes were nothing to do with them, not their responsibility, but only the result of free market actions, in a system where the Central Bank set the quantity of money and its price was freely determined to equilibrate demand and supply. This latter had obvious 'political' advantages. Thus there was a sizeable constituency in favour of monetary targets, opposed really only by those who thought that financial discipline and the control of inflation was an undesirable constraint, or a strictly subsidiary objective, or could be achieved at less cost by prices and incomes policies.

Indeed, in some quarters the main subject of discussion was whether the public announcement of a commitment to a medium-term strategy for monetary deceleration, supported by credible policies, would not allow for a faster deceleration of both monetary growth and inflation, without much, or any, accompanying depression of output and employment, because of expectational effects. Analogies were drawn with the monetary reforms which had terminated certain European hyper-inflations, without significantly worse unemployment then resulting.

In the event, a more cautious gradualism was generally adopted. Even so, the effect on output and employment has been as severe as the most old-fangled Keynesian economists warned. Some economists, of the newer school of rational expectations, and certain other [right-wing] commentators, blamed this on a lack of commitment, and/or on inappropriate supporting policies, by the Central Bank and/or Government, so that the promise of lower future monetary growth (and inflation) was not treated as credible. Other economists, among whom I include myself, argued that the normal market mechanisms through which wages and prices were set were not such as to allow government promises of future lower monetary growth to have much current impact on decisions today. The difference in hyper-inflationary conditions is that normal market mechanisms for wage and price setting will already have largely broken down in chaos. So monetary targets did not prove a painless panacea, but few had thought that they would.

A more serious problem was that the vaunted stability of velocity was found wanting, at least in a number of countries for periods long enough to cause serious policy problems. The relationship between £M3 and subsequent movements in nominal incomes in the UK and between M1 and nominal incomes in the USA and Canada, have all been subject to such sizeable and unpredictable (at least unpredicted at the time) shifts, that the emphasis on the achievement of such single targets had to be relaxed. What has become increasingly appreciated is that the stability of the time series relationships between any particular definition of money and nominal incomes depends on the institutional structure of the system. The very pressures, of worsening and more volatile inflation, that led to the adoption of monetary targets also encouraged innovation and competitive pressures that resulted in changes to the structure. Moreover, as some of us have noted, the adoption of a new target, to take advantage of an apparent statistical regularity, is liable of itself to result in changes to the structure of the system that will cause the prior regularity to collapse.

In particular, the onset of high and fluctuating inflation brought with it, as both lenders and borrowers tried to adjust, high and fluctuating market interest rates. Up until the 1970s banks had generally been prepared to set interest rates on their deposit liabilities in a passive, administered context. Demand/sight deposits were generally offered at no interest, while the rates provided on time deposits were subject to various constraints through cartel agreements, Regulation Q, etc. This meant that the authorities, by shifting market rates relative to such passively-determined bank rates, were able to affect the flow of deposits into the banking system, and hence the volume of funds that the banks could on-lend. Since the beginning of the 1970s, however, banks have reacted to external market pressures by offering a larger and larger proportion of their liabilities at market-related interest rates. Whenever a profitable outlet for additional lending could be identified and established, banks and other financial intermediaries would bid for funds, largely in wholesale markets, to finance such lending, ie liability management. Moreover, the demand by borrowers for loans from banks has itself turned out to be relatively insensitive to interest-rate movements, perhaps in part because of the tax offsets generally allowed. In consequence, both the elasticity of the response of monetary aggregates, and the possibility of imposing a credit squeeze, in response to interest-rate adjustments, has diminished. Particularly in those countries and circumstances where the direct domestic effect of interest rates on behaviour and expenditures is further reduced by the availability of tax advantages and offset for borrowers, the resulting volatility and average level of interest rates has increased.

Another partial consequence of this has been that much of the effect of domestic monetary targetry has been transmitted through exchange-rate adjustments. There are several examples in recent years of countries in which the pressures involved in the confrontation between a tight monetary policy and expansionary pressures elsewhere in the same economy have been reflected in an appreciation in the real effective exchange rate to levels that appear grossly out of alignment with existing fundamentals.

WHITHER NOW

In this context there are now, perhaps, three alternative approaches being canvassed: the first would involve a new monetary constitution and a return to 'free banking'; the second is to shift to nominal incomes targets; and the third is to attempt to resurrect some version of the pegged exchange rate system.

The dominant impulse of the advocates of a new monetary constitution is the conviction that virtually all, perhaps all, inflation arises from political mismanagement, a view which a study of history demonstrates has to be taken seriously. Furthermore Central Banks are held to be compromised, either through being themselves subject to political pressures, or because their nature as a large public sector bureaucracy makes their pursuit of the goal of price stability less than whole-hearted. You will appreciate that I do not myself accept the latter argument; though one should recognize the strength of the view that the issue of how to ensure the stability of the currency in a democracy is largely a constitutional question. Be that as it may, the advocates of a new monetary constitution seek to remove the conduct of macro monetary policy from the hands of the authorities, by in effect making it into an automatic system.

There are various forms of automatic system

proposed, for example a return to the gold standard, the adoption of a fancier kind of commodity-based scheme in which all monetary units would represent a basket of standard raw materials, or alternatively Friedman's suggestion of a monetary bureau that would expand the base, every working day, at a fixed rate. The idea of removing any political influence, or discretionary management, from monetary affairs may sound academic and impractical. Nevertheless, one must always remember Keynes' dictum about those in authority distilling the lessons of previous academic economists. Moreover, the establishment of the gold standard commission in the USA suggested that, were it not for bitter divisions in the ranks of the more right-wing thinkers about *which* monetary constitution to adopt, there might well be a strong constituency, at least in the USA, for such a change to be attempted. If the, at present academic, proposal for the adoption of a new monetary constitution, or rule, to remove discretionary monetary management from the hands of the authorities, were ever to be adopted, the question would then arise, what remaining functions would the Central Bank play, or could it more simply just be wound up? In another paper, I seek to argue that a Central Bank, in addition to its macro function in undertaking discretionary monetary management, plays a necessary regulatory and supervisory micro function in a world characterised by insufficient and costly information, eg on the true riskiness of banks' activities.

There is also a new, rapidly growing, group of monetary economists, the rational expectations school centred in Minneapolis, who argue that both the stability of the velocity of money, and also the powers of the Central Bank to influence the financial system depend on various legal and institutional constraints. These economists argue that innovation will tend to weaken and to by-pass these constraints, which in any case should be abolished, on the general grounds that free trade and competition without outside interference and regulation will promote efficiency and the public good in banking as in other sectors of the economy.

As an example of such analysis, it is noted that it should be technically possible for commercial banks to issue interest-bearing small denomination notes which could be used as a circulating medium, as currency. The ability of the Central Bank to maintain monopolistic control of the monetary base is thus seen to reside in legal or conventional prohibition on competitive commercial note issue. There is, I believe a reasonable case to be made that the seigniorage profits realised on note issue *do* depend on such legal and institutional constraints, but I do not believe that the power of the Central Bank resides to any important extent on its monopoly position in note issue. What is required, as a necessary minimum for the Central Bank to maintain its position, is that its liabilities, whether notes or deposits, continue to be needed to be held by the commercial banking system. This could be achieved, for example, by requiring net payments by commercial banks to settle government debts to be made only in legal tender in the form of drawings on their holdings of Central Bank liabilities. The ordinary private citizen need never use a Central Bank or Government note, but the Central Bank could still then operate in markets, by varying the supply of its own liabilities in relation to the continuing demand by the banking system for such assets, in order to maintain its present crucial ability to influence the general level of market rates within the economy.

What one government can commit itself to do, another can revoke. I rather doubt whether the adoption of a new monetary constitution would be seen as credibly likely to survive occasions of major pressure, in the absence of overwhelming public support for the longer-term need for such a constitution. Moreover, the recent experience of structural changes and other unforeseen developments causing sizeable fluctuations in velocity, which it had been previously asserted could be relied upon to remain stable, make many sceptical whether it is either possible or sensible, in view of our limited knowledge, to try to devise rules, for these could all too easily prove invalid as conditions alter in future.

Indeed the second approach, that I shall consider, involves a partial withdrawal from monetary targetry. If velocity was predictable, then a monetary target would be identical to a nominal income target, since velocity is *defined* in terms of the relationship between the money stock on the one hand and of prices and output on the other. Anyhow the ultimate objectives with which the authorities are concerned, output, employment, and price stability, relate to nominal incomes, not so much to the intermediate monetary variables since the monetary aggregate itself is a statistical abstraction of no direct or immediate concern to anyone, except perhaps someone in my own position. Particularly therefore in the aftermath of velocity having proven to be more unpredictable than expected, many moderate Keynesians (in the US) and moderate monetarists (in the UK) are suggesting a shift to targetting the path of nominal incomes itself.

There are, however, serious objections to this course. For those Central Banks which are constitutionally independent of the executive government, such as the FRB and DB, such a move could lead them into an awkward relationship with government. What if the Central Bank and the Government might want to set different nominal incomes objectives? Moreover, nominal incomes are influenced by fiscal and other policies, as well as by monetary policy. How could a Central Bank unilaterally commit itself to achieve a nominal income target, when many of the relevant policy instruments were controlled elsewhere? These problems, essentially relating to policy co-ordination, are less pressing in countries where all policy is already co-ordinated under central political direction. But many problems remain. For example, a rise in nominal incomes is comprised of an increase in output, which is a good thing, and an increase in prices, which is a bad thing. How can you combine a good and a bad into a single target? To put the same point better, one may well want to react to a shock to prices by encouraging through policy measures a (partial) offset to output, in pursuit of stability. But if there was a shock to output, say it fell suddenly on account of a bad harvest, would one consciously seek *higher* prices in order to attain a nominal incomes target?

The above is, however, something of a debating point. Much more serious is the fact that the national income data are generally quite long delayed, of uncertain accuracy and subject to major revisions, and, above all, represent the *lagged* consequences in the economy to *previous* policy initiatives. What one needs for policy purposes is not an accurate measure of where the economy *was*, but a reasonable indication of where it may *go* in future if no policy action should be taken now. By their nature past and still unreliable indications of GDP cannot give you that: you need, instead, some information, some leading indicators about future developments; and here current financial developments, if carefully and sensibly assessed, may help. By their nature there is really no way in which quarterly

observations of past GDP can help to guide and direct a Central Bank's *day-to-day* decisions on market operations in money and exchange markets.

Where it may, however, be sensible to place more emphasis on a nominal incomes path is, rather, in establishing and publicly explaining the longer-term strategy and framework of policy over a run of years, within which intermediate targets, and shorter-term operating rules, will still be needed for the conduct of policy through each year.

Both these first two alternative proposals concentrate on the conduct of domestic monetary policy, on the assumption, explicit or implicit, that the continuation of flexible exchange rates leaves monetary policy still free to address purely domestic objectives. There is growing doubt about how valuable that freedom really is. Recent history now makes the 1950s and 1960s, when Bretton Woods still held, look like a golden age compared to the disturbances of the 1970s, a decade of general floating. The causal connections, such as they may be, are mixed; thus the disturbances of the 1970s may have forced floating on us willy-nilly; but the desire to return to an apparently more stable system is strong.

Moreover, practical experience has demonstrated that flexible exchange rates do not adjust smoothly. Not only is there much short-term volatility, though the real costs of that are probably limited and often avoidable by hedging, eg in forward markets, but it is also the case that major exchange rate relativities have moved in certain cases far from their apparent comparative price — competitive equilibrium, a development which we have come to be able to explain in terms of the recent 'overshooting' analysis. There is, I think, less doubt that such misalignments have involved serious costs, in terms of inefficient allocations of resources and increased risk and uncertainties, in the countries involved.

Moreover, analytical argument suggests that the supposed benefits of domestic freedom for monetary control are not all that great. With the continuing development of a single world capital market, the elasticity of cross-currency capital flows is almost bound to increase. This will have the effect of forcing ex ante real interest rates into equality in all countries. All real developments and real shocks will continue to be transmitted, perhaps even in an amplified way, between countries despite, or perhaps because of, flexible exchange rates. All that the local Central Banker will be able to influence will be nominal magnitudes, eg the rate of inflation, the movements in nominal exchange rates and interest rates. The question then arises as to what great value it is to have one's own local man doing that rather than relying on Mr Volcker or Mr Poehl.

In general, countries with a dominant currency (and economic position), such as Germany within the EMS, have not objected if other countries have sought to link their currencies in some pegged (but adjustable) relationship to their own, so long as they themselves continue to be allowed absolute sovereignty and command to pursue their own national policy as they think fit. Many smaller countries, for the reasons already considered, have thought that the benefits in greater external stability arising from such a link outweigh the loss of domestic autonomy. Greater problems arise when the countries considering an exchange rate link are more equivalent in financial strength. In virtually no case, as yet, has the country, whose currency would seem to be the most obvious central anchor of the system, been prepared to cede any significant part in the decision-making process concerning its own national (sovereign) monetary policy to the other countries making up that system. This political imbalance may be acceptable, when it matches a similar economic imbalance between the members of the system, but will be less so otherwise.

Moreover, even if there was the *political* will to re-establish a wider regime of pegged exchange rates, there remains a serious question whether it is now technically viable. Has the growing size of the international capital market, relative to the reserves available to Central Banks, made it actually practically impossible to try to peg the $/DM or $/Yen rates? If the countries involved were prepared to vary their interest rates quickly enough and sufficiently for achieving the single purpose of maintaining a pegged exchange rate, then the shortfall in reserves would not matter so much; but are they willing to do so? There may be no real alternative to a relatively free float between major block currencies (though the path of that float should be capable of some influence from inter-governmental co-operation), besides the extreme solution of a single world currency, and there is no political constituency for that yet.

There appear, therefore, to be serious objections to all these alternative approaches. In the absence, then, of any clear and practicable alternative, Central Banks have reacted to structural change and to the break-downs of previously stable relations between money and nominal incomes by adopting a more pragmatic and discretionary approach. We take into consideration a wider range of variables in coming to a view on the stance of policy and its appropriate adjustments. In many ways this is congenial to a Central Banker, since my colleagues are at heart pragmatic people and our discretion is legendary. Nevertheless it is not an entirely comfortable position.