

7. Monetary Base IV
Part C

Comments on Green Paper

Monetary Targets Conceptual
Antecedents document

Pages 51 - 66

IN FULL PUBLICITY AND COMMON KNOWLEDGE

While permitting the inference of greater attention on monetary aggregates, and of greater awareness of longer run aspects of policy in conceptions of the responsibilities of the monetary authorities our preceding discussion does not suggest that these derive from perceptions of relative stability of real and financial markets or from clearer evidence on characteristics of behaviour. Furthermore it will appear that in none of the three countries has the behaviour of the authorities been such as to fit the description of policymakers who periodically decide on the growth of monetary aggregates deemed (on the information available at that point in time) consistent with the attainment of ultimate objectives and then proceed to pursue the particular path of the monetary aggregates thus derived in disregard of the information rendered continuously by the environment except insofar as such information furthers the attainment of the monetary aggregate objectives already set and declared. Rather experience since the introduction of publicly announced monetary targets suggests a setting in which policy makers seek to infer the implications of current developments for ultimate goal variables and hence perceptions of policy that (provided we recognise the impressionistic nature of the policymakers knowledge of his environment and correspondingly the grey area in which the outcome that does not call for policy review in terms into the one that does) can be said to be consistent with the spirit of information feedback strategies and intermediate target/policy indicator settings, but as such do not detract from a position where '...judicious assessment of the complexities of actual conjuncture /is deemed to/ allow a better selection of policy than sticking to any predetermined posture'.²⁶⁴

Why then monetary targets? What is the nature of the pledge?

Policy Anticipations and the Choice of Policy

Nothing has so far been said of the public's perception of the environment and of the 'publicly announced' aspect of recent policies. The policy problem described was seen to depend on information lags of random disturbances, on lack of knowledge of the structure, but not, explicitly at least,²⁶⁵ on private agents perception of policy and on the way policy may impinge on the structure. Yet publicly announced targets, emerging as they do in a period of inflation and uncertainty owe much of their existence to such consideration.

.../That policy

That policy outcomes would not in general be independent of the public's perception of the aims of policy, of the policy regime, of anticipations of how the policy maker will respond to shocks, is a relatively old position²⁶⁶ that, though many often forget,²⁶⁷ few would deny. What is a matter of current dispute, is the implications of such behaviour for the choice of strategy to be followed by (or more generally the role that should be assigned to) the authorities.

Starting from the '...presumably unobjectionable idea that people fully exploit whatever information they have'²⁶⁸ it is pertinent I believe to distinguish between two circumstances. The first relates to a situation in which private agents hold a particular (stochastic) perception of the environment. The second, as in our discussion of policy under uncertainty, affords no such unique (and exhaustive) prior belief.

In the former case the assumption of a particular prior perception about the structure entitles us to reason, following J. Muth 'that expectations, since they are informed predictions of future events, are essentially the same as the predictions of the relevant economic theory'²⁶⁹ and hence, provided that we stress the durability of a particular prior belief, 'wage adjustment in which people's expectations are identical to the corresponding expectations conditional on the process generating those outcomes'.²⁷⁰ The latter of course incorporates the response functions of the authorities. And when the authorities are assumed to hold a particular prior belief about the structure and to be endowed with the same information as the public about the path of the exogenous variables in the system, their precise response to any given eventuality can be accurately inferred by the public so that any action by them is fully anticipated. If furthermore we assume that 'the relevant economic theory' reveals that monetary policy cannot effect (neg) real magnitudes, it follows that monetary policy - being perfectly predictable, and as all other phenomena, rationally processed in its implications - cannot effect the probability distribution of real output.²⁷¹ The 'distribution of output does not depend on the parameters of the feedback rule for the money supply'.²⁷² 'a definite rule emerges only when we assume that the authority's goal function incorporates a target value for the price level'.²⁷³

In terms of output (and employment) therefore, the monetary authority's actions matter only to the extent that (a) they embody non-systematic elements, 'surprise', or (if they embody no such elements) (b) when over the 'relevant horizon'²⁷⁴ money is not neutral. Furthermore as '...there is no way that the

.../monetary authority

monetary authority can base a countercyclical monetary policy on...[surprise], since there is no way [it] can regularly choose [the random term that constitutes the surprise] in response to the state of economic affairs in order to offset other disturbances in the system, 275 no output gains are to be had from discretionary (surprise) policy. Conversely since an increased variance [as distinct from systematic feedback] of money reduces the information content of observed prices and therefore makes it more difficult for individuals to respond 'appropriately' to changing patterns of relative supplies and demands ... there is an efficiency argument for making money as predictable as possible. 276

It should be noted that this analysis does not lead directly to the conclusion that has been appended to it, namely that '...following Friedman's X percent growth rule...can be defended as the best the authority can do.' 277 There is many 'a slip twixt cup and lip'. For it is certainly not enough to have reached the conclusions of the previous paragraph, nor the result that '...a unique equilibrium price level does not exist [when] the monetary authority pegs the rate of interest period by period regardless of how its value varies from period to period.' 278 Indeed in a world of the kind defined by Sargent and Wallace it seems hard to comprehend why the monetary authority's goal function incorporates among its arguments the price level. And though one can readily accept the argument against an increased variance of money, we may be less disposed to readily accept the yet unproven appendage namely: that the cost of systematic feedback rules designed to generate a steady rate of growth of the money stock are smaller than those of any other of the feedback rules between which the models constructed strictly suggest that we should be indifferent.

At any rate one may (and many have) challenge(4) the assumptions leading to the conclusion that with regard to output and employment there is nothing to choose between feedback rules. Objections to neutrality - ranging from effects of expected inflation on the demand for money 279 and other assets, to Franco Modigliani's contrasts between inside and outside money, 280 to sticky prices, with wages as a prime example 281 - spring easily to mind. No less digestible seems the assumption that people's subjective expectations are identical to the corresponding objective expectations conditional on the process generating those outcomes. For even if we are willing (as our discussion of pp. above suggests authors to be) to endow the policy maker with such a perspective, the fact that the acquisition and processing of information is not costless suggests that we should be reluctant to accept

From contention that

the contention that these agents too '...form their expectations 'as if' they know the true model of the economy.' 282

Either of these departures from the macro-rational expectations assumptions provides us with a role for monetary policy. As R. Barro and S. Fischer note, if '...the policy maker has superior information about the economy - for example he obtains information more rapidly than the public about aggregate prices and output [then]...countercyclical monetary policy ... can work to move the economy toward the level of output that would be chosen under full current information [since] policy can be designed that induces individuals to act as though they were aware of the extra information possessed by the policy maker.' 283 Even in the absence of such informational asymmetries, a systematic '...active monetary policy can effect the behaviour of output if there are long term contracts, 284 since by responding to shocks that occur after wages contracts have been concluded by part of the labour force it can influence the variation in output. 285

From a more embracing standpoint however we may note that non-neutrality are the counterpart of costly to acquire and process or indeed incomplete information. Whether in our conception of the monetary economy we emphasize an uneven distribution of information with money resulting 'from economic agents' innovative responses to the operation of information and adjustment costs, 286 or we stress '...the indissoluble link between money and unknown non-neutralities have to be recognized. The existence of contracts denominated in money terms - a 'corollary' of which in Keynes is liquidity preference, 283 and in Hayek reflects '...the existence of a generally used medium of exchange' - signifies at least the fact that the costs of collecting and processing information will result in contracts that are conditional on particular information subsets. Such reasoning does imply that the policy maker will in principle always be able to 'exploit' some non-neutralities. It also admits that the information sets upon which contracts (or more generally decisions) are made contingent will not in general be independent of the characteristics of the economy including the policy of the authorities.

On the other hand this feature (which even with regard to anticipated price movements implies a change in the opportunity set of the social group) has as its counterpart a perception of the environment in which the decisions of private agents cannot be said to rest on exhaustive enumerations of all possible alternatives. We cannot suppose the economic agent '...to have looked at every value in the logically possible range of the variable and assigned to it a degree of standing as a hypothesis in answer to his question:

What will the measurement prove to be? ... a sweep of thought that can scarcely be supposed to miss out or neglect any contingency which another mind could point to or which the course of events will be able to provide.²⁹⁰ Correspondingly, our mode of thought and our conception of the role of policy must acknowledge that economic agents have their decisions on 'fragmentary evidence'.²⁹¹

Whether we still choose to describe private agents' decisions in terms of probabilities which are 'subjective',²⁹² whether we append to them Bayesian perceptions, degrees of 'confidence',²⁹³ or whether we choose to opt for a mode of thought that seeks to recognize 'uncertainty over model selection',²⁹⁴ incomplete information admits that situations can arise such as run counter to judgement duly passed upon their claims to conform to the capacities of the world or even such as have never entered the economic agents' mind; situations that suggest '... that the nature of things has been fallaciously conceived [that] make it seem that the prevailing picture of the world is wrong in some more or less essential and radical respect'.²⁹⁵

When so we may accord to policy the role of seeking to ensure that economic agents' perceptions of the nature of things are preserved - and, perhaps, at times when circumstances demand that they are orderly revised. This obviously implies that other things equal policy itself should not be the source of the unexpected. But, unless we assume that nothing else can challenge prior beliefs, policy has a role to play. It is rather a delicate role since unless the intent is clear it may itself cause people to think that the nature of things is fallaciously conceived. If the event has not been accounted for in other economic agents' prior perceptions neither has the policy response required to meet it. One senses that policy should receive, to use Myrdal's phrase,²⁹⁶ '... full publicity and common knowledge', and that the policy maker should explain such divergences as may in the course of time arise. Of course to do so reduces, we may say, the costs to the public of inferring what policy may be; it also implies that fewer resources '... have to be devoted by private agents to contingency planning to adjusting schedules and designing for flexibility',²⁹⁷ this being after all a counterpart of an economic organisation that delegates some of the responsibilities to a common body. Again since in the absence of a unique prior belief we must presume that, even when regard to prospects of common interest, economic agents will interpret policy actions differently publicly announced targets can contribute to consistency of plans.

.../It will be noticed

It will be noticed however that inherent in this process of reasoning is the belief that the authorities have a positive role to play and that they will and do play this role. But what if circumstances prove that the role previously ascribed to them is misconceived in that either objectives previously perceived to fall within their province are beyond their control or that the pursuit of such objectives causes changes that challenge in other ways prior beliefs? Then private agents cannot rely on the authorities' action to ensure the particular picture of the world previously envisaged. The result may be a different assignment, more consistent you might say with the capabilities of the body in question.¹ But except perhaps in the transaction, when that is economic agents seek to ascertain what has been due to errors in policy and what may otherwise be the nature of things, it seems unlikely that the assignment of the policy maker will be to ensure that policy itself is not the source of the unexpected.

The Nature of Public Announcements

As mentioned earlier the experience of the late 1960s and the first half of the 1970s has, in general, induced considerable reflection on the extent to which governments can be expected to deliver some of the objectives (and in particular 'full employment' in the sense of a 'sociopolitical') desirable level of employment) previously thought to fall within their province. Furthermore inflation (now more prominent among ultimate objectives) whether in fact the outcome of the authorities' earlier misconceptions regarding the implications of changes in monetary aggregates, or of rational responses by them to pressures for monetary accommodation²⁹⁸, has been increasingly perceived by the public as a monetary phenomenon - a belief which however subject to qualification by the specialists, cannot be treated as of no consequence by the policy maker.

From this standpoint publicly announced monetary targets denote changes in objective functions, statements of the nature of the unexpected against which policy undertakes to provide in a language that accords with (but in the process also reinforces) what the Governor of the Bank of England described as '... the layman's apparently intuitive perception of the broad relationship between monetary growth and inflation - clearer perhaps to him than to the professional who knows all the necessary qualifications'.²⁹⁹

As Paul Volcker noted

'Monetary targeting is first of all a useful tool of communication to the public. The relationship between money and inflation in its broader terms is readily understood. So long as the monetary

authority's expression of intent has a degree of credibility (and maintenance of credibility will be crucially important over time) the announcement of the so-called growth ranges at a minimum sets a general framework for expectations of inflation, defining at least the upside potential. There is no doubt that control of inflation... depends importantly on containing price expectations. Any public action that can dampen fears of new inflationary surges improves our chances of satisfactory economic results including prospects of reducing inflation.³⁰⁰

Even more revealing perhaps is the Bundesbank's view that

'the primary aim... of specifying a monetary growth target is to give those involved in economic activity... especially those who have to make far reaching decisions on costs and prices... an indication of the monetary course they can expect in the coming year'³⁰¹

a position echoed in the Bank of England's Bulletin which notes

'In publicly specifying these monetary objectives the intention is to give those responsible for economic decisions throughout the economy - including decisions affecting costs and prices - a clear indication of the course the authorities intend to pursue in the years ahead'³⁰²

In short, one may say,

'Publicly announced monetary targets... reflect an effort to adopt in the world of today a sensible and comprehensible symbol of policy.'³⁰³

Such statements however raise a number of questions and permit a number of interpretations regarding the nature and significance of the pledge. In the first instance, and as our previous discussion reveals policymakers recognize, monetary targets in no way define over the horizon pertinent to most contracts 'the upside potential' for inflation.

Correspondingly from the standpoint of those making 'far reaching decisions on costs and prices' monetary targets contribute little or no indication of what they can expect 'in the coming year', as both inflation and demand are subject to longer (and variable) lags in response to variations in monetary growth, while announced desired growth rates of the money supply are interpretable into statements regarding interest rates and loan availability only when taken in conjunction with (and hence seen as conditional upon) a rather wide set of other informational inputs. Conversely if monetary targeting aims at consistency of plans, and granted our earlier discussion suggesting policy responses that are conditional (or at least refer) to ultimate goals, the question arises as to whether the announcements

reveal commitments to monetary targets or descriptions of conditions during the coming year that combine intentions to employ policy instruments in such a fashion as to achieve the verification of predictions regarding specific variables deemed to enter directly in decisions of economic agents.

Focusing on Germany for example our discussion in section II above reveals that policy announcements contain explicit inflation forecasts. Furthermore an appraisal of performance since the introduction of publicly announced targets reveals for the period 1975 to 1978 (inclusive) a much smaller mean error in the actual rate of inflation to that forecast a year earlier than in the actual to 'targeted' central bank money stock.³⁰⁴ This is true in all four years and on average describes errors in the former of less than one third of those in the latter. While this in no way implies that the announcement of monetary targets is irrelevant to the attainment of the forecast rate of inflation, or that the emphasis put on announcements of single valued targets rather than ranges, was in any way misplaced, it does suggest that other things equal anticipations of inflation based on inflation forecasts are more accurate than anticipations based on announcements of the rate of growth of GDM. This is the more so when we acknowledge the errors in forecasting real GNP over the period.

Correspondingly one cannot on this evidence dismiss the possibility that public announcements, aiming to ensure convergence of expectations of inflation, not only provide direct information regarding expected inflation but are also interpreted to denote a pledge regarding inflation rather than the pursuit of a monetary target beyond the stage at which the authorities believe that violation of the announced target for GDM may threaten the public's confidence in the intent of policy regarding prices.

On such reasoning, and in conjunction with our earlier discussion of actual policy, one may suggest the following description of German policy. At the point of decision of target rate of growth the authorities resolve that a particular rate of inflation is implicit in contracts concluded for the coming year. Publicly announced targets combined with explicit inflation forecasts - that unavoidable rate of price changes continuously stressed in their calculation - aim to provide information for such sectors as have not yet entered in fixed contracts as to what the aggregate price level expectations embodied in such contracts ought to be, so that 'flexible' prices can be made to adapt to the level of the sticky ones.³⁰⁵ Policy then aims (subject to all the qualifications raised in our earlier discussion regarding policy effects) to ensure validation of such price

expectations, and if successful in so doing would other things equal (if that is output and velocity forecasts prove to have been correct) will also result in the attainment of the 'targeted' rate of growth of GDM. The attainment of the 'target' comprises a manifestation that expectations are verified and not the absence of discretionary policy aiming at ultimate goal variables. The attainment of the 'target' constitutes an objective in itself only to the extent that continuous divergencies from forecast may (notwithstanding explanations of the reasons for the divergence) undermine the credibility of the simple (quantity theory) model that the Bundesbank employs in public announcements to 'reinforce' people's confidence in the inflation forecasts presented by it.

If so the Central Bank Money stock serves neither as a policy indicator nor as a target, in the sense that there have been defined in our earlier discussion. The unitary long-run elasticity to nominal GNP it exhibits is of consequence not in the context 'control-theory-policy-hydraulics', but in answer to the question of how best to convince the public that such inflation objectives as the authorities regard feasible are indeed feasible. The search for an aggregate whose relationship to nominal GNP is not subject to interest induced shifts -- however irrational the composition of that aggregate may be -- and the choice of single value targets are part and parcel of the same confidence 'experiment'. So are (perhaps -- for one may not preclude the possibility that policymakers fall victims of their own plays) the claims for more accurate reflection of 'moneyiness' described in the weights of GDM.

Insofar as 'the overriding aim is...to co-ordinate the decisions of economic groups more effectively' the publicity stand of '...monetary growth [targets] acting as a signpost... '307 has not in Germany been unsuccessful... For as R. Schleminger notes '...experience...permits [the inference] that the formulation of this target helped to bring about a 'social consensus' among all groups, even though other factors may have contributed to this consensus'.³⁰⁸ But what of the other two countries?

In the United Kingdom even more than in Germany one observes a change in the policy makers goals and objective functions. Furthermore, again, if we treat target ranges as denoting a 'mean of the target' objective, we find that over the period of publicly announced monetary targets the error in the actual-to-forecast rate of inflation has each year been less than the equivalent for EMU and over the three years of targets a ratio of the average of the former (as derived from the OECD forecasts) to that of the latter of

less than one-third. On the other hand while the authorities' derivation of monetary targets combines inflation forecasts, monetary target announcements do not; and insofar as attempts through income policies over the period 1976 to 1978 may be said to articulate an inflation commitment, one should note that these have not sought to present a consensus view between such rates of inflation as the 'Layman' is encouraged (in Bank of England statements of the relationship between money and prices) to infer from publicly announced targets and the wage agreements he is asked to engage in. Such discrepancies are hardly conducive to convergence of expectations of inflation, to consistency of plans, to clarifying the role of policy. But they reflect not merely inconsistencies in overall policy design, as they also denote the fact that in the UK monetary targets combine with other economic policies in an aim to effect a revision of aspirations regarding real income and of earlier perceptions and trends regarding income distribution, to a greater extent than may be said to be true of Germany and certainly, since 1977, with lesser success than in that and some other similar economies.

As regards expectations and consistency of plans however, one must also note the difference between the German single valued targets and the (wide) ranges opted for in the United Kingdom; ranges that -- in the absence of the qualifications regarding the relationship between money and prices known to the specialist, and, depending on the interpretation one places on the aims of policy, even for the specialist -- permit a wide dispersion of forecasts of the magnitudes that impinge directly on the decisions of economic units. In this connection one perceives also differences between the United Kingdom and Germany regarding how in the light of past experience and institutional characteristics one may best nurture the required confidence in the intent of policy pursued.

Such contrasts also become any attempt to generalise German perceptions regarding monetary targets to United States targeting and experience. If American targets are to be interpreted to comprise a device whereby 'social consensus' regarding inflation can be achieved, one cannot but marvel at the conclusions to be drawn regarding economic man in different countries when reflecting on

- The American's find it necessary (desirable) to announce (stress) four, strictly revised target ranges.
- The German's have been particularly anxious to adhere to a single valued variable target.

One may of course rationalize the contrast by noting the possibility that, in the eyes of American policy makers, economic units focusing on the same variables (e.g. prices) hold different perceptions of the nature of things and thus rely on different models and require different inputs regarding monetary aggregates. Similarly it may be argued that any given economic unit may draw more accurate inferences regarding a wider range of variables (or regarding the time path of variables) that impinge directly on its actions from announcements that convey information of the relative paths of a number of aggregates. But in either event monetary targets in the United States and Germany seem amenable to treatment as creature of the same species only for purposes that permit a very wide (and otherwise vacuous) definition of the species. Interestingly this also appears to reflect an attitude of British and American market participants compared to those in Germany. Monetary targets seem to comprise a vital statistic for participants in financial markets in the US and the UK and relatively less so for participants in labour markets, whereas the converse may be said to apply to West Germany. For both the US and the UK one may note the thunder and smoke that deviations of actual growth rates from their ranges (particularly upper bounds) have often created; and correspondingly one may wonder whether greater stability of financial markets has ensued from monetary targets. But on another plain the US also contrasts with the UK as an inflation, one finds, has carried there a much lower priority, among ultimate goals than in the other two (or in indeed all other major industrial) countries. For the US the errors in inflation forecasts have been larger than the corresponding errors for M₁. For the US the focus with regard to ultimate objectives has been, with considerable success, on output and employment rather than prices. Of course there is nothing in the dictum relating to monetary targets that compels a particular goal function. Yet all in all our discussion suggests that few generalizations other than of a kind that may have been drawn for policy in yesterday's can be drawn from cross-country comparisons during the (first phase ? of the) era of monetary targets.

.../IV

IV THE LAST CURTAIN WITH THE GHOSTS OF THE PAST

Almost a century and three-quarters ago, the Bullion Committee (of 1810) concluded that:

'The most detailed knowledge of the actual trade of the Country combined with the profound science in all the principles of Money and Circulation would not enable any man or set of men to adjust and keep always adjusted the right proportion of circulating medium in a country to the wants of trade.' 309

In 1927 Governor Strong and other witnesses testifying before the Committee of the United States Congress on Stabilization appointed to examine the wisdom of a proposed amendment to the Federal Reserve Act, the effect of which would have been to lay upon the Federal Reserve the duty of using all the powers at its disposal to 'promote a stable price level for commodities in general', 310 expressed considerable doubts towards the idea that 'the Federal Reserve System has the power to raise or lower the price-level by some automatic method, by some magic mathematical formula.' 311 Strong's position is summed up in the following excerpt:

'I believe that administration of credit such as is afforded by the Federal Reserve System, is capable of exerting an influence upon the volume of credit employed by the country and upon the cost of that credit. Within the limitation which the volume and the cost of credit exert an influence upon the price-level, and only within that limitation can the operations of the Federal Reserve System influence prices. But there will be times when even the power to somewhat regulate the volume of credit and its cost will fail to achieve the complete or anything like complete regulation of the price-level because there are many other things far beyond the influence of the volume and cost of credit, such as the mood of the people. Therefore, if any expressions is contained in the Federal Reserve Act which appears to represent to the people that the Federal Reserve System can do more in stabilizing the price-level than the limited control of credit is capable of performing, I am afraid that disappointment will come when there are fluctuations of prices which cannot be controlled within the strict limitations that I have described.' 312

Commenting on this position in 1930, Keynes found himself to 'have more sympathy with some of the doubts than he had had a few years before'. But he reasoned:

.../I think

'I think that in one fundamental respect they have mistaken the character of the problem and underestimated the possibilities of control... If the inability to sell current output at the current cost of production is general... this is an indication of a maladjustment on the side of demand rather than of supply, and the only way of influencing demand is by increasing investment relatively to saving... To refrain from lowering the rate of interest during a slump... could only have the effect of accentuating the violence of the Credit Cycle:...

According to my own definition 'good credit conditions' would of course be those in which the market rate of interest was equal to the natural-rate, and both the value and the cost of new investment were equal to the volume of current savings. If we take this as our criterion, many of Governor Strong's perplexities will become much less formidable. We could, I think, in each case tell him in general terms what he ought to do to preserve stability.' 313

And though in the paragraphs following (as perhaps in the parenthetical reference to 'in general terms' quoted above), 'certain limitations' were recognized by Keynes on 'whether in practice it does always lie within the power of the banking system to control the rate of investment', as, for example, when 'non-monetary causes of instability... arise so suddenly that it is impossible to counteract them in time [and] hence... an interval should elapse before stability is restored... the era of stabilization policy had clearly begun.

The shift in ethos was eloquently presented in the 1931 Macmillan report 315

'Between Liberty and Government', the Committee noted, 'there is an age-long conflict. It is of vital importance that the new policy, which truly promises liberty by securing better conditions of life for the people of this country, should not in its zeal for interference, deprive them of their initiative and independence which are the nation's most valuable assets. The lesson of experience... is that in the case of our political and social institutions we may well have reached a stage when an era of consciousness and deliberate management must succeed the era of undirected natural evolution... We must now choose our path deliberately and consciously. In other words we stand in need as never before of a definite national policy in our financial dispositions.' 316

In the latter vein the report stressed the importance of economic research 314 but did not expect it to deliver the philosopher's stone. Thus it was reasonable:

'... If economic fluctuations are even partly under human control [as indeed the disturbances due to monetary factors are], it is of the utmost importance for the betterment of humanity and the stability of society that such methods of control as may exist should be marked out and put into practice, even if as is and will remain true, there exist no simple scientific rules by the mere application of which such control can be exercised. The enagement of currency and credit is essentially an art and not a science.' 318

By 1936 Keynes' position on the role of monetary policy had, as we well know, shifted to one in which the ability of the monetary authorities to influence the level of demand was thought to be very limited. And so he reasoned that:

'... It seems unlikely that the influence of banking policy on the rate of interest will be sufficient by itself to maintain an optimum rate of investment.' 319

Others, however, did not share Keynes' views on the limitations of monetary instruments; and wary of the capacity of mortal men to wield such power for the common weal, sought to devise rules to limit the exercise of discretionary power by the monetary authority. Thus in the same years as The General Theory there appeared Henry Simons' Rules versus discretion in monetary policy. 320 A rule to deliver the objective sought by the 1927 Committee of the United States Congress mentioned above was favoured by Simons and Mintz. 321 Significantly, for it pre-empted more recent feedback rules, the rule proposed was that the central bank be required to engage in open market purchases and sales of securities whenever a broad index of prices moved outside a specified narrow range.

Simons and Mintz, however, did consider other rules. Simons, to quote Friedman, 'vacillated between favoring a rule expressed in terms of the quantity of money... and a rule expressed in terms of price index.' 322 And, just as for some Keynesians orthodoxy hardened to a position in which demand management was the answer to all evils but within that frame the role ascribed to monetary policy was that of accommodating fiscal policy, so also, at the opposite end of the spectrum, those disposed to interpret the evidence on the ability of the market to disseminate information and on the significance of monetary changes differently sought to harness the discretion allowed to the monetary authorities. Thus, in 1959, Friedman noted:

'The granting of wide and important responsibilities that are neither limited by clearly defined rules for guiding policy, nor subject to test by external criteria of performance is a serious defect of our present monetary arrangements. It renders monetary policy a potential source of uncertainty and instability. It also gives greater power to the men in charge for good or ill, greater 'flexibility' to meet the problems as they arise, to use the phrase that the Reserve System likes to emphasize. Yet...experience suggests that eliminating the dangers of instability and uncertainty in policy is far more urgent than preserving flexibility.' 322

Hence the recommendation is:

'Instruct the System to use its open market powers to produce a 4% per year rate of growth in...currency and commercial bank deposits of the public/.... to keep the rate of growth as steady as it can week by week and month by month and to introduce no seasonal adjustment movement of the money stock.' 324

Yet Friedman's rule has not had the impact that his teachings on the importance of money have had. The Simons-Wintz favourite is in some ways conceptually more akin to the experience described in this paper; in that although the objectives of the monetary authorities have encompassed other goals besides a reduction in the variance of prices or the rate of change in prices, the emphasis on the latter and the element of feedback from currently available information are unmistakably contemporary. But even again when a range of objectives replaces a single objective, when differences in time perspectives are recognised, when revisions of proximate targets are the rule, when in each particular circumstance judgement is, and has to be, exercised so as to distinguish a particular manifestation from other apparently similar events recorded in the past, no less when our appraisal of any particular recommendation is so subject to uncertainty regarding the characteristics of our economy, the brave new-world of feedback, rules affords a great deal of room to (and policy resembles much of) yesterday's Art of Central Banking.

To be sure policy makers have not been immune to experience nor to the strides that economic analysis has made. Looking back they may not object to the view of the Macdelliffe Committee: 325

'That the authorities...have to regard the structure of interest rates rather than the money supply as the centrepiece of the monetary mechanism, /.../ does not mean that the money supply is unimportant but that its control is incidental to interest rate policy.' 326

but they will also take heed, when in yesteryears others falter, of the Committee's view that:

'The authorities should not aim at complete stability of interest rates, but should take a view as to what the long-term economic situation demands and be prepared by all the means in their power to influence markets in the required direction.' 327

... we have seen, the latter has not implied that they are oblivious to the short-run; for they '...pay attention to the short-term as well as to the long-term situation'. 328 But whatever the perception of trade-offs there is now emphasis on the need to provide information of the content of policy; there is strong awareness that, in the words of the Macmillan Committee:

'...a change of no great significance which is likely to be merely temporary or seasonal may cause undue alarm and may have a seriously unfavourable psychological reaction on business confidence.' 329

a fact for which, that same Committee reasoned,

'...the only remedy...is to be found...in/.../readiness on the part of the authorities to secure/.../a diffusion of knowledge as to the relevant facts.' 330

In a world where failure to predict events or even to explain them satisfactorily with benefit of hindsight is not the exception, even this is quite a tall order. But, though in so doing, economic analysis is invaluable we may also bear in mind Edgeworth's remarks of long ago:

'The theorist must not pretend to wisdom, if he knows so little what he is about as to mistake his abstract formulae for rules immediately applicable to practice.' 331