10. Monetary Control Consultations

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the 'short-run financial markets are notably volatile' characterised (as Bank of England commentaries sometimes stress) by sharp swings in confidence, is conducive to emphasis being placed on stabilizing interest rates. External considerations and other sectoral effects, such as those pertaining to the behaviour of building societies and the housing market also play a role in this context.[216] In addition however the failure of the UK authorities to secure any reliable information regarding the parameters of the demand for money function implies that the confidence placed on any forecast rate of growth of the chosen aggregate is severely circumscribed,[217] and hence also the failure to attain any such target strongly discounted (as 'in the United Kingdom,' the Governor of the Bank of England remarked, 'we have not recently been able to observe a continuing stable relationship between money and incomes')[218] except insofar as the model employed by other economic units in interpreting such deviations is not subject to the same uncertainty. With policy makers perusing (after the hopes of the turn of the decade) an environment that brings to mind passages from the Radcliffe Report [219] the pursuit of a proximate target is both half-hearted [220] and also subject to no obvious strategy in which to commit such instruments of policy as are available.[221] Besides, one may add, policy makers now know that even if the demand functions for monetary aggregates were better behaved delays in statistical information make it difficult to '...act to offset... divergences from forecast'[222] while there is also the caveat that '...stable and steady monetary growth carries with it the risk of instrument instability in that interest rates will need to fluctuate increasingly widely.'[223]

West Germany

At first sight at least the situation in Germany appears to have been rather different. From a longer run perspective, the high priority accorded to price stability throughout the postwar period, and the relative emphasis on monetary, rather than fiscal, policy for much of this period, were features that distinguish West Germany from the other two countries considered. Unlike the US and the UK the role ascribed to monetary policy was never deemed to be that of accommodating fiscal policy.[224] Indeed until 1967 the Bundesbank's actions (revealing marked differences in objective functions between it and the various tiers of government regarding the pursuit of price stability, employment and growth) invariably aimed to counteract not only the influence of purely exogenous factors but also the procyclical responses of the various tiers of government. And when in 1967 a move towards limiting discretion occurred, it was to constrain fiscal freedom, as the Stability and Growth Act sought to ensure greater co-ordination

of Federal and Länder government policies and defined precisely the adjustments in government budgets (through so-called 'cyclical reserve funds') deemed to constitute the appropriate fiscal countercyclical action in the face of fluctuations in economic activity.

Yet the significance that has traditionally attached to Central Bank Policy should not, I believe, be interpreted to have implied in the 1960's at least, emphasis on control of the money supply (however defined) as a means by which ultimate objectives could be achieved. References to the money stock are in fact rather scarce before the turn of the 1970's. Instruments of policy are deployed to effect 'bank-free liquidity' (i.e. bank holdings of central bank money and other short-term assets that can be used to increase such holdings, minus compulsory reserves) and thereby interest rates, credit and the demand for money. The influence of policy on ultimate goal variables is not perceived to operate through changes in the stock of money balance, but rather through changes in the asset composition of bank portfolios that cause changes in expenditures through changes in availability and cost of credit. In this respect the emphasis is on flows rather than stocks, and the money stock is conceived as a consequence of the effect of policy on other intermediate targets and of their effect on the goal variables.

By the beginning of the 1970's there are sounds of regard for money as a determinant of expenditures. Changes in bank credit are referred to as factors on which '...the Bundesbank... pays special attention, not only because, simply in quantitative terms, bank loans are normally the most important factor affecting monetary conditions, but also because this is a field in which the Bundesbank can exercise the strongest influence, by means of its instruments of monetary policy, on changes in the money stock'.[225] Yet, significantly, it is noted that the fact that its '...instruments have not enabled the Bundesbank to exercise strict control over the money creation of the banking system, despite the great effectiveness of liquidity policy in many respects...need not be considered a disadvantage insofar as control of money creation as such is not the sole important factor in the control of aggregate demand in the economy; equally essential, and perhaps more so, is control of interest rates for this influences the calculations of borrowers /who, it is explained, compare 'the nominal interest rate with the expected yield and with expectations as to the future course of the value of money,'/ and hence the demand for credit.'[226] Indeed, although some homage is paid to money stock control, at least until 1973, one feels it to be incidental. 'Monetary policy in Germany', we are told in 1972, 'is guided by the basic concept of controlling the bank's supply of credit

and the resultant increase in the money stock via bank liquidity, and in addition, of influencing non-banks demand for credit by changing the interest rate level.'[227] But the analysis that follows such statements focuses entirely on free liquid reserves, and credit conditions, while the impression that, with regard to expenditures and hence ultimate goal variable, the time lag between policy action and effect is that perceived to attach to changes in free liquid reserves and effect on bank credit to the private sector (without further ado) continues.[228]

Interestingly the latter is so notwithstanding awareness '...that the size of the money stock, [equal to private-resident-non-bank holdings of currency and sight deposits], is closely related to the course of economic activity as reflected by, say, the gross national product'[229] and the finding '...that divergences in the movement of the two aggregates, that is, fluctuations in the velocity of circulation, follow a regular pattern that may be linked both with the level of interest rates and with the cyclical situation'.[230] For while noting that regressions '...suggest that fluctuations observed in the velocity of circulation are more a symptom of cyclical movements than a reaction to interest rates'[231] (notice the similarity to more recent utterances regarding the cyclical behaviour of CBM), it was stressed that 'By their very nature regression computations do not indicate the cause of the statistical correlation between the aggregates mentioned - whether, that is, monetary movements determine economic movements or whether the course of economic activity, dictated by other influences results in fluctuations in the monetary sphere'.[232] Nor is there any evidence later invoked to resolve this quandary. Rather the increasing emphasis on monetary aggregates in official statements coincides (and is often referred to in connection) with the advent of floating rates and with a break in the stylised facts previously invoked to describe the empirical relationship between free liquid reserves and credit expansion.[233] Insofar as floating rates do permit greater freedom in adjusting short-term rates to domestic conditions a shift in emphasis from bank liquidity to the monetary liabilities of the Government/Central bank seems consistent. But the shift was induced no less by the fact that 'From Spring 1970 onwards [the] basic premise of liquidity policy became increasingly questionable...[as] even when the free liquid reserves had been reduced to a level which previous experience had shown to be 'critical' credit expansion continued unabated or even accelerated. It [thus] became evident that the basic condition for liquidity policy, [namely that 'there is a general typical time lag of about a year observed in every phase of the cycle between the change in the liquidity position of banks and hence their credit creation potential on the one hand and the actual use of this potential on the other'[234]], in the form hitherto pursued was no longer assured.[235] It is in this context that the stock of

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central bank money emerged as a policy indicator,[236] as the index performing the task of '...measure of the expansive or restrictive effect of monetary policy'[237] that free liquid reserves were previously deemed to perform. And yet a year later, without relinquishing it seems in the eyes of the authorities its role as a policy indicator,[238] it comes to serve as the target.

In the latter context although no allusions to the variance approach[239] are to my knowledge to be found in any official statements certain aspects of the Bundesbank's policy conception and design seem more consistent with proximate (intermediate) targets than policy in either of the two countries so far examined. In particular, the choice of single value yearly targets may suggest that the degree of error attaching in the Bundesbank's opinion to the function describing the demand for CBM was at least initially thought to be small. And though in first announcing a monetary target the Bundesbank pointed out 'that in the short-run there is no close relationship between the movement of the national product and that of central bank money'[240] the extent to which such remarks referred even to random fluctuations in demand for this aggregate is somewhat unclear granted the tendency to augment such statements by referring to a systematic pattern of behaviour, that is that 'the relationship of central bank money...to the nominal gross national product is subject to procyclical fluctuations [so that]...during an upswing the national product rises faster than the money stock and the opposite occurs in the downswing.'[241] Otherwise the central bank money stock it was claimed shows a course which is substantially free from special influences.[242] Thus, insofar as the relationship of this aggregate to nominal GDP was thought to be not responsive to changes in interest rates, this being a major reason for the choice of this aggregate in preference to M_1 or M_2 in the first place,[243] the behaviour of CBM could be said to possess by 'divine ordinance' or careful selection, the characteristics traced above as necessary in the context of the variance approach for the treatment of a monetary aggregate as a proximate target to be efficient.

Table IVa to IVd, do reveal a contrast between experience in West Germany and the other two countries considered. As in the case of the United States and the United Kingdom the precise parameters recorded do depend on the nature of the estimated relationships. On the other hand, unlike the other two countries, the temporal stability of the functions purporting to describe demand for CBM seems more satisfactory. In this respect the question of selection '...the best available demand for money function'[244] and of a particular prior belief about the structure seems for Germany more

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compatible with experience. But the results also reveal that from a variance approach standpoint a proximate target strategy in CBM is by the Kareken et al - Ben Friedman reasoning, likely to have been inferior to a feedback rule that allows for a comparatively strong and certainly significant (see also χ^2_4 and χ^2_3 in Tables IVb and IVd) interest elasticity of demand for CBM.

Yet it is doubtful whether the Bundesbank's strategy was (and/or is) perceived from a variance approach perspective. Certainly appeals to intellectual antecedents reveal closer kinship to our discussion of policy under uncertainty.

> 'The relationship between what monetary policy does and what it ultimately causes to happen', H. Deckelmann notes, 'is so hard to fathom, according to a widely accepted view that the actions of a central bank cannot be directly guided by it. Hence the Bundesbank, like other central banks is following a two-stage procedure. The real objectives of economic policy, as set out, for example, in the German 'Act to Promote Economic Stability and Growth' of 1967 with regard to price stability, employment, external equilibrium, and steady and appropriate economic growth, are transformed [illegible] into a monetary growth target. Monetary policy uses its instruments to come as closely as it can to this target. We fully realise that in theory serious objections can be raised against this two-stage procedure of monetary policy: '...the two stages of the monetary policy process are in fact not totally independent in the presence of uncertainty'.[245] In the case of the intermediate target 'money stock' for instance, interest rates play a part at both stages, not only in the relationship between instruments and money stock but also in the relationship between the money stock and the real objectives of monetary policy.[246] In spite of these difficulties a case can be made for formulation of an intermediate target that covers the effects of policy in the financial field. In principle the central bank is in a strong position here because the banks' money creation cannot function without its support. On the other hand it cannot achieve very much on its own; the banks and their customers must go along with it. Even limiting monetary expansion is not as easy as may be supposed on the basis of the dictum that nothing can be done without the central bank. It costs the central bank a great deal of effort to make the relationships approximate to its wishes, and hence it is important to know how far it has been successful in so doing. An intermediate target appears to be the best means to this end.'[247]

And in discussing 'which variable best reflects the impact of monetary policy in the financial field ?'[248] he continues

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> 'In the debate on monetary theory during the last few years central banks who have chosen an interest rate target have often been charged in trusting a highly unreliable compass. It is argued that a fall or a rise in interest rates on the credit market cannot be interpreted as indicating an easing or tightening of monetary policy as they may only be due to changes in demand for credit. A central bank which is guided by monetary developments it is claimed cannot be guilty of such misinterpretation. If interest rates rise in an economic upswing, the argument runs, the central bank will not be able to construe this as implying a restrictive policy if monetary growth increases further at the same time. Conversely, falling interest rates are not indicative of a successful expansionary policy as long as the growth rates of the money stock continue to decline.'[249]

One can hardly fail to be struck by the similarity to T. Savings' approach to the policy problem in a world characterized by lack of complete knowledge of the structure and information lags discussed on pages above. The emphasis on intermediate targets and two-stage procedures springing from ignorance of the precise effects of policy on ultimate goal variables is unmistakable. Momentary reflection however also unveils the statement as one that conflates intermediate targets and policy indicators.[250] In the first half the discussion focuses firmly on intermediate targets; but when we come to 'In spite of...' we are moving to policy indicators, and in the quotation that follows we are clearly there.

From a narrow standpoint one may lend more emphasis to the former (that is intermediate targets rather than policy indicators) by noting the concern expressed in Bundesbank statements regarding the need to distinguish CBM from the concept of the monetary base.[251] Yet acknowledging the fact that (as our discussion of policy indicators reveals) one is not bound to accept for all institutional structures the Brunner-Meltzer identification of 'the base' with 'the ideal policy indicator' this is clearly not sufficient to resolve the issue. More revealing perhaps are utterances regarding 'the second stage' of the 'two stage procedure'. Here statements stress a close connection between CBM and ultimate goal variables (or more precisely the gross national product[252]) and invariably even permit the inference of a causal sequence from the former to the latter; the choice of 'CBM as a target' being on several occasions presented as an attempt to identify not only an aggregate the demand for which, unlike M_1 and M_2, is not subject to shifts induced by interest rate movements (a feature for which M_1, i.e. the simple summation of currency plus sight plus time plus saving deposits,

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could have served just as well), but also an aggregate so structured as to reflect the 'moneyness' of different kinds of deposits.[252]

Since no detailed account exists of what the expected configuration of output and price developments during the year has been at the point of each yearly policy review, the extent to which the authorities have sought to pursue a proximate or intermediate target strategy cannot be ascertained simply by looking at the actual path of CBM. On the other hand the descriptive accounts of the conduct of policy since 1975, the tendency to overshoot the target in the light of errors in prediction regarding velocity or output, the periodic emphasis on external considerations, and the occasional concern with stabilizing bond rates and securing orderly conditions in security markets,[254] do reveal that the announced objectives for CBM have not comprised a target to be pursued in oblivion of other objectives or of the information forthcoming in the course of the year.

Acknowledging such features of behaviour in the years since the introduction of CBM targets, one cannot dismiss the possibility that this reflects the challenge to prior beliefs which experience since 1974 has posed. For not only have short-run deviations from the targeted rate of growth of CBM been stressed not to bear any relationship to movements in nominal income (and further 'that the trend of a few months must not be overrated',[255]) but also even over longer intervals (over the cycle) experience has not conformed to the relationship originally perceived by the Bundesbank to hold between real and nominal income and the stock of CBM. As the President of the Bundesbank remarked in late 1977, 'what has proved difficult is to correctly forecast the velocity of money or its rate of turnover. Our present economic recovery is not following a normal cyclical pattern and this probably explains why the velocity of money has not quite conformed to historic cyclical patterns'.[256]

As the results presented above suggest the lack of conformity to 'historic cyclical' patterns must, to some extent, be due to lack of conformity of nominal interest rates to historic cyclical patterns and the tendency of the Bundesbank to underplay the influence of such variables on the relationship of money to income.[257] Yet besides such systematic influences there have also been, it appears, other factors effecting the relationship in specific periods. Certainly in deciding on policy at any given point the Bundesbank has continuously sought to establish the nature of the disturbance thus listing over the years a wide menu of factors accounting for unanticipated decreases (or more precisely, for the failure of anticipated increases to materialise) in the ratio of nominal GNP to CBM;

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explanations that have ranged from 'errors in seasonal adjustments',[258] to 'precautionary motives' increasing the currency component,[259] to 'growing holdings of Deutsche Mark notes outside the Federal Republic /plus/ the disproportionately steep increase in income of pensioners who traditionally hold more cash, and the increase in cash payments in the 'grey areas' of business activity',[260] to lags in response of expansionary policy.[261] Correspondingly one notes increasing emphasis on 'explaining the reasons for divergencies from the target', a feature that reflects a flexibility in operating procedures analogous to that traced de facto for the US and the UK, as well as the abandonment in December 1978 of the single valued, year on year average, target in favour of average of last quarter to last quarter target range of 6-9 per cent for the growth of CBM, launched with acknowledgements both to the effect that '...when setting the target it proved particularly difficult to gauge the extent to which the available money stock could be used'[262] and that '...the target range attests that policy has to adapt itself to changing conditions both at home ... and vis à vis the rest of the world.'[263]

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 preceeding 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 revision melts 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 position[266] 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, envisage a situation in 'which people's expectations are identical to the corresponding expectations conditional on the process generating these 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 (peg) 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 functi/ 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

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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 Freedman'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 ensure 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(d) 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

.../the 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 asymetries, 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-neutralities 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 innovational responses to the operation of information and adjustment costs,'[286] or the stress '...the indissoluble link between money and unknowledge,'[287] non-neutralities have to be recognised. The existence of contracts denominated in money terms - a 'corrolary' of which in Keynes is liquidity preference,[288] and in Hayek reflects '...the existence of a generally used medium of exchange'[289] - 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 ennumerations 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 base 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 recognise '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 falaciously 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 command 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 falaciously 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 divergencies 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 with regard to prospects of common interest, economic agents will interpret policy actions differently publicly announced targets can contribute to consistency of plans.

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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 can 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. But except perhaps in the transition, 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 'sociopolitically' 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 accomodation[298], has been increasingly perceived by the public as a monetary phenomenon - a belief which, however subject to qualification by the specialist, 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 laymans 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 maintainance 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 outbursts 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 effecting 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 recognise, 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 intputs. 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[305] 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 CBM. 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 interpretted 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 CBM 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'[306] 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 CBM. 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 these 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 ploys) the claims for more accurate reflection of 'moneyness' described in the weights of CBM.

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 H. Schlesinger 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 range' 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 £M$_3$ 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

less than one-third. On the other hand while the authorities derivati of monetary targets combines inflation forecasts, monetary target announcements do not; and insofar as attempts through incomes 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 <u>past experience and institutional characteristics</u> one may best nurse 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 interpretted 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) <u>four, quarterly revisable target ranges</u>.
- The German's have been particularly anxious to adhere to a <u>single valued yearly target</u>.

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One may of course rationalise 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 creatures 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 on attitudes 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 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 M_1. 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 dicta relating to monetary targets that compels a particular goal function. Yet all in all our discussion suggests that few generalisations other than of a kind that may have been drawn for policy in yeteryears can be drawn from cross-country comparisons during the (first phase ? of the) era of monetary targets.

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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 with 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 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:

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> '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 'sound 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'[314] 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, while truly promoting 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 conscious 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 reasoned:

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> '...if /economic fluctuations/ are even partly under human control /as indeed the distrubances 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 management 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-empts 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:

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> '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.'[323]

Hence the recommendation to:

> '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-Mintz 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 then 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 Radcliffe 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, /which/ 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 failed, 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]

As 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 ensure/ 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]