

## The Monetarist Policy Rule: A Critique \*

Monetarist policies have been vociferously advocated by significant sections of the economics profession, whether in academic, private or official institutions. They have also been widely adopted by Western governments grappling with the severe inflationary difficulties of the past decade. Keynesian views on demand management are out of favour, damned by association with the rising inflationary tide. Yet judged by the same yardstick, monetarist policies have similarly failed: inflation in Western countries is still high despite sustained contractionary policies that have raised unemployment to levels unprecedented in the postwar period. Monetarists may claim, as Keynesians did before, that the environment with which policy has to cope has become more adverse, so that such crude comparisons are invalid. Without monetarist policies, the defence runs, inflation would have been much higher and unemployment no lower. But adequate proof of this is not forthcoming, and a reasonable jury is likely to convict if a plausible case for the prosecution can be laid out.

Curiously enough, the prosecution's case was established at much the same time as monetarist policies were being widely adopted. This tempts critics of monetarism to say "we told you so". Yet considered reflection makes it clear that the critics must share in the responsibility of failure. We certainly failed to make our voices clearly enough heard. But more critically, we failed to take seriously enough the theoretical advances being made in macroeconomics in the 1970's, thereby allowing others to set the pace. And the alternative policies were not set out in sufficient detail to persuade policy makers that they were viable, that they could effectively tackle the very pressing problems of concern. As the edifice of monetarism crumbles in its application in the U.K., so the task is to spell out the alternatives clearly and realistically.

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In this paper, we are concerned with monetarist views on demand management, and more specifically with what has become known as the monetarist policy rule. Associated with, and popularised by, Friedman's consistent advocacy over the years, this prescribes that the rate of growth of the money supply should be kept at a constant rate, independently of economic developments. It is therefore an open-loop policy of the simplest possible design. We examine the evolution of thinking about this rule, starting with Friedman's own writing and moving through to the shift in thinking represented by the rational expectations literature. We argue forcefully that the theoretical arguments for open-loop monetary policies are weak, and that the practical weaknesses of these policies were in large part anticipated by the theoretical literature.

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Friedman's first major paper about the design of macro-economic policy (Friedman, 1948) did not envisage adoption of the monetarist policy rule. It argued that fiscal parameters should be set appropriately for the longer run, so that (for a closed economy) the government budget deficit would, on average, equal the trend level of private sector net saving at full employment. Automatic fiscal stabilisers would be permitted to operate in the face of fluctuations in demand and output, but discretionary fiscal policy would be eschewed. Fiscal deficits or surpluses would be financed entirely by money creation (the national debt having been retired), and the money supply would change only as an automatic consequence of the budget. To ensure this latter condition, Friedman argued for a 100% reserve requirement against bank deposits. The idea was that fluctuations in aggregate demand would be damped initially by the operation of automatic fiscal stabilisers; and offset over time by the change in the money supply induced via the budget. The object of the scheme was to remove the discretionary element from macro-policy, a feature in common with Friedman's later writings.

The scheme was open to many objections. The assumptions of a 100% reserve requirement and a funded national debt made the scheme politically and administratively unrealistic. The role and importance of the non-bank financial institutions and the potential scope for disintermediation were not addressed. Friedman himself noted that the auto-

matic stabilising forces provided by the scheme may be too weak to stabilise adequately deep-seated cyclical tendencies in the economy, so that additional discretionary measures are required. (This essentially Keynesian concern disappeared from Friedman's later writings, perhaps as the long boom brought greater confidence in the stability of the economy.) A more characteristic concern was that the scheme provided inadequate checks on irresponsible fiscal (and therefore necessarily monetary) measures by the authorities. This may have been a major reason for moving towards the monetarist policy rule as providing a greater constraint on government behaviour.

Friedman's 1953 paper on stabilisation policy provided another argument for the monetarist policy rule. Long response lags and possible uncertainty concerning the magnitude of response to instrument changes were seen as a major objection to activist stabilisation policy, since these may result in well-intended discretionary changes having their impact at the wrong time and therefore destabilising the economy. The point applied also to Friedman's 1948 proposals for automaticity, for the aggregate demand effects of the induced changes in the money supply may well come through after a lag sufficient to add to overall instability.

This argument can be criticised from the standpoint of Brainard's (1967) analysis. Uncertainty concerning the effects of instrument changes certainly requires caution in the use of instruments, but also suggests the need to make use of all available instruments to minimise the overall riskiness of policy changes. Only if uncertainty concerning the effects of monetary policy is extreme should the active use of monetary policy be avoided. But then it follows that the basis for monetarism is itself rather uncertain! Much may depend on the periodicity of the disturbances that policy is attempting to deal with. Short-lived, high frequency disturbances may be impossible to cope with, as Friedman suggests; but sustained, low frequency disturbances can be dealt with effectively. The 1953 paper may rule out fine-tuning; but leaves coarse-tuning relatively unscathed.

Poole's classic 1970 paper on the choice of intermediate monetary targets has often been interpreted as supporting the monetarist policy rule. Poole argues that, while an interest rate rule will be superior for stabilising output in the face of money demand disturbances, a money supply rule is superior in the face of aggregate demand disturbances. (In general, of course, a mixed policy is superior.) In conjunction with the empirical evidence on the demand for money accumulated in the late

1960's, which was interpreted as showing the stability of the money demand function, this was widely interpreted as favouring a money supply rule. Such an interpretation was unwarranted, however, since these empirical studies did not establish that the money demand function was any more stable than the expenditure functions. (Subsequent events in the U.K. and U.S.A. were to diminish faith in the reliability of these estimates, both for money demand and expenditures.) Rather, the Poole analysis should be interpreted as re-emphasising the need for a balanced policy in the face of disturbances.

What is obscure in all of this is what the associated stance of fiscal policy is supposed to be. One possibility is that the monetarist policy rule is combined with a PSBR rule, whereby the PSBR is kept on a predetermined track in the face of exogenous disturbances. (This appears to be what the U.K. government has been aiming for over recent years.) This implies that automatic fiscal stabilisers are actively offset. A fall in aggregate demand, which lowers tax revenues and increases transfer expenditures, will require an increase in tax rates or a cut in government expenditure to keep the PSBR on course, and these changes will exacerbate the fall in demand. Not surprisingly, the performance of a procyclical fiscal policy of this kind is quite dismal, as we have observed in practice for the U.K. recently.

The alternative is that automatic stabilisers are allowed to operate. In the face of aggregate demand fluctuations, the government budget will therefore fluctuate, and to adhere to the monetarist policy rule these fluctuations will have to be financed by changes in government non-monetary debt. Is it the case that these fluctuations are without consequence? If not, why do we not have bond supply targets as well as, or in place of, money supply targets; and bondists as well as monetarists?

One response is that the outstanding stock of government non-monetary debt is of no consequence. This is sometimes argued by reference to the ultrarationality argument that government bonds do not constitute net wealth to the private sector because the private sector anticipates the future tax burden associated with the interest payments on additional debts. (See, for example, Barro (1974).) There are many theoretical reasons why this need not be so, and the controversy on the matter has given rise to much ingenious reasoning. (For a convenient summary, see Tobin (1980).) But this need not detain us: while it is sufficient that bonds constitute net wealth for changes in the bond stock to be of consequence, it is not necessary. Considerations of private sector portfolio balance suggest that the private sector will not wish to allocate the increase in financial wealth holdings associated with fiscal

deficits exclusively to non-monetary debt, unless it is offered an inducement in the form of a higher return. This is best thought of in terms of an increase in the outstanding bond stock increasing the demand for money. To maintain interest rates constant, the authorities must finance any fiscal deficit in such a way as to accommodate private sector portfolio preferences, requiring an increase in both the money supply and the outstanding stock of bonds. There is an increasing body of evidence to suggest that this portfolio balance effect is appreciable, at least in the U.K.

An immediate consequence is that sustained fiscal deficits unaccommodated by a monetary expansion will put considerable upward pressure on interest rates and may even cause an unstable collapse of output (particularly in an open economy where rising interest rates and falling demand may cause the exchange rate to appreciate, with consequent loss of competitiveness and decline in net exports). This may sound close to the monetarist account of crowding-out. But this impression may be modified by noting two additional points. First, the degree of crowding-out is, in principle, indefinitely large, not simply one-to-one, so that debt-financed fiscal deficits have potentially very large effects. If Friedman is correct in claiming that appreciable effects of this kind have not, in practice, appeared, this reflects more on the good sense of policy-makers in not combining fiscal deficits with a non-accommodating monetary policy.

Second, those monetarists who wish to combine fiscal stabilisers with the monetarist policy rule should find the analysis uncomfortable. It is straightforward to show that this policy combination will cause considerable volatility in interest rates and output in the face of repeated, temporary fluctuations in aggregate demand. This possibility is increased if money fulfills a buffer role, whereby the private sector wishes to hold a considerable proportion of temporary increases in wealth in the form of money, transferring funds to other assets if the rise in wealth is sustained. For this means that the impact of short run accumulations of wealth on money demand (and hence interest rates under the monetarist policy rule) are correspondingly greater. Again there is evidence for the U.K. that this is the case.

Recognition of the interactions between monetary and fiscal policy also undermines the interpretation of Poole's argument that aggregate demand fluctuations are best dealt with by means of a money supply rule. To see this for a special case, consider the implications of the "monetarist" case where money demand is interest inelastic, depending

only on income and holdings of financial wealth by the private sector. Suppose that the private sector decides to raise its savings ratio, perhaps because it anticipates a rise in unemployment and wishes to save for hard times. Demand falls, but is cushioned initially by the operation of automatic fiscal stabilisers. There is even scope for some discretionary fiscal policy to offset the fall in demand, whilst adhering to the prescribed path for the money supply, since the decline in output depresses money demand. But in the medium run, the rise in private sector wealth puts upward pressure on money demand, forcing the PSBR to be cut progressively if monetary targets are to be adhered to. Eventually the PSBR will have to be restored to its former level, at which point fiscal stabilisers will have been entirely neutralised. The end result is a savagely deflationary policy which more than confirms the initial expectations that triggered the process. Poole's result is completely overturned : a money supply rule fails altogether to stabilise the economy in the face of sustained aggregate demand disturbances.<sup>1</sup>

Many of us have thought that these problems for monetarist policies arising from wealth effects on money demand are likely to be rather reduced in significance if monetary targets are defined with respect to a narrow category of money such as M1, as is the case, for example, in Canada. This is because the demand for current account deposits is likely to be governed primarily by transactions motives, not portfolio considerations. Recent empirical work has cast doubt on this, at least for the U.K. In any event, control of M1 can make little sense, even if it could be accomplished, in view of the ease of economising on demand deposits by careful manipulation of transfers between time and demand deposits. If a narrow definition is required, a retail category, such as that envisaged in the recent Bank of England reform proposals, is called for, and such a category is likely to be susceptible to wealth changes pertaining to the personal sector.

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So far, our discussion has primarily been concerned with the problems of the monetarist policy rule in a closed economy. Matters are

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<sup>1</sup> See CURRIE (1980). Of course Poole applied his analysis only to the very short run, automatic policy response to disturbances, whereas this case refers to the medium run. But others have drawn stronger implications from the analysis, erroneously as our counterexample shows.

rather more difficult in an open economy, particularly if the degree of capital mobility internationally is high, as it is plausible to assume, and if the exchange rate is floating more or less freely. Early monetarist models of floating exchange rates assumed that goods market prices and wages are perfectly flexible. Money supply changes are then reflected more or less quickly in both prices and the exchange rate, so that international competitiveness will not be greatly affected.

But if we assume realistically that goods prices and wages adjust only sluggishly, and that the foreign exchange market adjusts rapidly to money supply changes, marked changes in competitiveness are possible, with consequent effects for the traded goods sector. Our technical understanding of these matters has been advanced very considerably in recent years by the application of rational forward looking expectations to the modelling of the exchange rate. (See, for example, Dornbusch (1976, 1980).) What is critical for understanding the behaviour of the exchange rate under the monetarist policy rule is to appreciate that any disturbance to a behavioural relationship in the economy will also cause the exchange rate to shift, causing a shift in competitiveness (unless, perhaps, the shock is from foreign prices). Consider, for example, an increase in money demand which is not accommodated. The resulting rise in domestic interest rates will cause the exchange rate to appreciate as operators in the foreign exchange market react to the scope for profitable arbitrage or speculation. The size of the appreciation will depend on how long the higher U.K. interest rates are expected to persist; if the source of the disturbance is correctly perceived, the expected duration of the disturbance to money demand will be critical. We can see, therefore, that the exchange rate will be moved around by any disturbances that impinge, directly or indirectly, on domestic interest rates, or by the expectation of such disturbances, and that the size of the movement will depend on the size and expected duration of the disturbance. Evidently a money supply rule makes the nominal exchange rate a very volatile, noisy variable; and with domestic prices relatively sluggish, it follows that the real exchange rate will be very volatile. Those who argue that a steady rate of growth of the money supply helps to stabilise the nominal environment within which agents operate would do well to reflect on whether this phrase can be given any meaning in a world where the nominal exchange rate is dancing about, with associated gyrations in critical relative prices such as the terms of trade.

These issues are not merely theoretical debating points. There is no sign that monetary targets have reduced the short-term volatility in nominal exchange rates : on the contrary, Artis and Currie (1982) report crude tests that suggest, if anything, that in the U.K. monetary volatility has been inversely related with exchange rate volatility. The more vigorous pursuit of U.S. monetary targets over the past year or so, which has resulted in much greater variation (verging on instrument instability) in interest rates, has clearly caused the wild gyrations of the dollar against European currencies. The problems associated with the monetarist policy rule are exported and magnified under floating exchange rates.

The sensible forward looking characteristics of rational expectations in foreign exchange markets may help to explain why these markets are so sensitive to sustained changes in the fiscal deficit, even if arising from the operation of fiscal stabilisers, when the authorities are pursuing the monetarist policy rule. As we have already noted, debt-financed fiscal deficits will place considerable upward pressure on domestic interest rates. If a government were to persist in them, holders of the currency will gain through higher interest rates and an appreciating currency. But such a policy would be disastrous, and the expectation must be that such a policy will be abandoned sooner or later. One possibility is that the initial fiscal stimulus will be reversed. If this is unanticipated, holders of the currency at the time of the policy shift will lose heavily. This will also be the result if monetary targets are abandoned and the fiscal deficit maintained. Operators in the foreign exchange market will therefore be trying to anticipate the point at which the reversal in policy will occur.

It will be recognised, of course, that the relative sluggishness of goods prices and wages is critical for the issue of exchange rate volatility that we have been discussing, and, indeed, for the issues of instability arising from debt-financed fiscal deficits that we touched on before. The burgeoning monetarist rational expectations literature frequently makes the contrary assumption that wages and prices are perfectly flexible. This was a natural development from the literature concerned with the expectations augmented Phillips curve, where the sole source of sluggishness in the adjustment of prices to excess demand was the slow adjustment of price expectations. This implied systematic bias in expectations, and it was not unnatural to assume that agents would discern these consistent errors and correct for them. The expectations augmented Phillips curve then suggested that the economy would be at



full-employment except for unsystematic deviations due to forecasting errors. This eliminates altogether the need for demand management policy to dampen sustained movements in the level of aggregate demand. To the extent that agents do not forecast optimally, there remains some scope for policy to dampen the unsystematic fluctuations in demand if the authorities forecast more accurately; but the same result could be obtained by the authorities divulging their superior predictions. On this view, any policy rule, no matter how complex, will have no purchase on output; but to simplify the task of forecasting, the authorities would do best to adopt the most straightforward policy, namely the monetarist policy rule.

Exception is often taken to the stringent assumptions underpinning the rational expectations assumption as set out in the previous paragraph. It is true that the informational requirements of agents are very considerable if they are to behave in this way, and that the relaxation of informational assumptions can have important consequences. In particular, demand management policy might in this context be viewed as an efficient substitute for costly learning by the private sector. But the basic insight of the rational expectations literature is of fundamental importance. Policy prescriptions and analysis that are based on the assumption that the private sector makes systematic mistakes are unlikely to have survival value (see Peston (1980)). Sound theoretical analysis and policy prescriptions would ideally possess both the survival property and would be robust — that is, they would hold up over a wide range of circumstances and behaviour.

The major objection to monetarist rational expectations is not to rational expectations, but to the implicit assumption that prices and wages adjust perfectly flexibly. (See, for example, Tobin (1980).) Attention has increasingly focussed on sources of inertia in the adjustment of wages and prices that do not spring from sluggish (and therefore systematically incorrect) expectations. Costs of adjustment of wages and prices of a variety of forms (see, for example, Salop (1979), Stiglitz (1980), Rotemberg (1980)) give rise to short run relative stickiness of wages and prices even when expectations are formed rationally (including, of course, recognition of this stickiness and its effects). Such adjustment may well take the form of a delayed, jumpy adjustment of individual wages or prices, but sluggish adjustment of the aggregate level of prices and wages. Overlapping wage and price contracts, coupled with concern for relative wages and prices, generate considerable inertia in the system, giving rise to long cycles that can be

stabilised by policy. Once systematic cycles of this type arise, expectations concerning quantities become as important as those concerning prices. Forward looking expectations about quantities are likely to speed up the destabilising influences arising from the multiplier and accelerator processes. It is not particularly difficult to show that, if the costs of holding excess stocks are high, forward expectations can generate unstable stock cycles unless stabilised by policy. It would be of interest to examine empirically how much of the recent massive destocking in the U.K. can be understood in these terms.

Despite the useful insights offered by this type of analysis, it would be unwise to push the rational expectations assumption too hard. Investment projects with long gestation lags (whether in fixed equipment or in human skills) involve an assessment of many imponderables, for some of which past experience will offer little guide. While decisions of this type will, no doubt, be based on a sensible calculus, there is no presumption that agents will figure matters out correctly. The danger in this regard is that a sustained collapse of demand leads to a fall in fixed investment, impairing capacity; and that when a revival in demand occurs, shortages of capacity cut short the upswing. There is evidence that this may currently be a problem, both for the U.K. and other Western European countries (Artis, 1980).

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To summarise our argument, therefore, there are no good grounds for supposing that a flexible demand management policy can be dispensed with; nor for believing that the monetarist policy rule would form part of a satisfactory stabilisation policy. Given our analysis, it is clear that attempts to implement the monetarist policy rule will encounter serious problems. In practice, of course, pursuit of monetary targets has been made more difficult by the practical problems associated with short run control of the money supply under current institutional arrangements. This has led to increasing pressure in the U.K., notably from financial circles, for a shift towards monetary base control. (Friedman recently argued for this by comparing it with controlling the output of motor cars by regulating the quantity of steel supplied as an input. A re-reading of his own *Price Theory* or a few minutes' talk to a Soviet central planner would reveal how much this comparison undermines the case for monetary base control.) But this argument is beside

the point. In view of the dangers associated with tight short run control of the money supply, one is tempted to the view that it is just as well that the Bank of England has consistently failed to hit its monetary targets, and that other central banks have frequently abandoned or modified their targets in the face of difficulties. This might be so had it not been for the fact that the misguided pursuit of monetary targets has so distorted and deformed other aspects of stabilisation policy, notably with regard to the fiscal balance and the exchange rate. Far from stabilising expectations, as advocates of monetary targets suggest, their pursuit may well add to the volatility of expectations and the result will be unnecessary disturbances to output, inflation and the real exchange rate, with consequent adverse effects on investment, the traded goods sector and growth. It would be surprising if better stabilisation policies could not be devised.<sup>2</sup>

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