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Drafts on  
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Monetary Policy  
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S. Gray

22/7/2013

Monetary Policy

Koban Burke

Could you review this for me please?  
A2

Background  
The Framework - 1950-79

In many ways the discussion of monetary policy and particularly monetary instruments has followed ~~xxx~~ a course similar to that of fiscal policy. But over the years there has been a substantial change in the <sup>relative</sup> importance attributed to monetary and fiscal policy. In the years after World War II, money virtually never entered into the discussion of macro-economic policy. The attempts to bring so-called <sup>(they were actually credit restrictions and controls)</sup> back/monetary measures as part of a package in 1955-58 were seen to be an ~~xxxxix~~ unredeemed failure and led to the establishment of the <sup>Committee and its</sup> Radcliffe/Report of 1959. /

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/ Committee on the Workings of the Monetary System, the chairman of which was Lord Radcliffe, a prominent judge; the committee was dominated by Richard Sayers, professor of economics at the London School of Economics. In 1968 or 9, Lord Radcliffe told me that he thought that he had made a mistake in allowing the 'academics' so much influence in shaping the Report, <sup>that</sup> at that stage he was already persuaded that there were serious flaws in the approach.

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The Radcliffe Report was thought to show that monetary policy was ineffective. / It argued that the financial effects of policy were exerted by a concept which it could never ~~xxx~~ define <sup>called</sup> "liquidity".  
~~xxxx~~

The quantity of money was thought to be relevant only in so far as it was a component or affected the 'liquidity' of the financial system.

<sup>The</sup> Radcliffe <sup>Committee</sup> believed that, since credit markets were not perfect, direct controls on bank lending and hire purchase were the most powerful and quick acting financial instruments to be properly employed in adjusting the economy to its <sup>best long term</sup> full-employment state, <sup>where the financial system</sup> ~~was~~ <sup>or to reduce any</sup> ~~the excesses of~~ <sup>unsupportable</sup> pressure on <sup>the</sup> ~~fixed~~ <sup>pseudo-</sup> ~~sterling~~ exchange rate.

MP (2)  
~~Monetary policy had sunk so low in the~~  
early

In the 1960's the ~~xxxxxxxxxxxx~~ government did not even prepare any statistics on the quantity of money. But there were elaborate data on bank lending, hire purchase credit, and the like. \_/

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\_/ It is of some interest to note that <sup>in 1961/2</sup> when Roel Kavanagh applied for a Houbton Norman research grant from the Bank of England in order to develop statistics of the quantity of money in the UK, the application was rejected, partly, I was told, on the grounds that the quantity of money was of little interest <sup>in the monetary</sup> ~~for~~ financial policy. The Bank accurately reflected the opinion of the profession and Radcliffe.  
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The first imitations of monetarism came soon after the Labour Party won power in 1964. Because of the initial expansionary policy associated with the National Plan, <sup>1964</sup> and with the <sup>government</sup> ~~first~~ refusal to devalue sterling <sup>in 1964-6</sup>, the balance of payments absorbed large quantities of <sup>foreign exchange</sup> ~~currency~~ reserves, and the government was forced to ask for assistance from the IMF. ~~xxxxxxx~~ The IMF had some considerable experience of other monetary systems and had developed its own particular medicine for overheated economies, ~~with~~ Ceilings were imposed on domestic credit expansion (DCE) in the letter of intent to the IMF in 1968. Even so the mechanisms of credit rationing went on substantially as before.

Like any other system of controls, the ~~xxxxxxxxxxxx~~ allocation of credit caused considerable distortions and inefficiency. Banks and particularly the clearing banks bore the brunt of the regulation - but this merely resulted in the normal banking business leaking out to the unregulated non-bank sector. For example companies lent directly to one another rather than allow their money to be caught up in the web of controls in the banking system.

Competition and ~~xxxxxx~~ Credit Control (CCC), introduced by the Heath government in 1971, intended to sweep away the quantitative and qualitative controls on credit markets. The Governor of the Bank said..."Basically what we have in mind is a system under which the allocation of credit is determined by its cost..." The CCC regime

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/ "Key Issues in Monetary and Credit ~~xxxxxx~~ Policy", Bank of England Quarterly Bulletin, Vol 11 (2) June 1971.  
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lasted but two years. Yet in that period there was the most rapid monetary expansion in the history of Britain.- ~~xxxxxx~~ CCC had clearly failed, and the evidence <sup>(to 14.7.1974)</sup> of the extent of the failure accumulated rapidly as inflation accelerated successive funding crises developed, <sup>to £3.3 Bn</sup> and the balance of payments degenerated into a record deficit. The current account reasons for the failure are many. ~~xxxxxx~~ Perhaps the main reason was the fact that the authorities were unwilling to ~~xxxx~~ impose the rates of interest which would contain the monetary aggregates. A secondary reason was that the government, believing that monetary and fiscal policy could be ~~xxxx~~ regarded as largely independent, had embarked on a massive program of fiscal stimulus in an attempt to ~~xxxxxx~~ avoid an imminent increase in unemployment to the magic figure of one million.

The CCC period left many long-lasting impressions on ~~xxxxxx~~ monetary management. The first was that rapid increases in monetary aggregates ~~xxx~~ should be avoided; and the system should be changed to prevent such explosions. The second lesson was that monetary policy must be considered in conjunction with fiscal policy; they should not be planned as though they were independent instruments.



singular advantage of being closely related to the fiscal variables, and particularly to the PSBR. Treasury and Bank officials could readily translate a constraint on M3 into a maximum PSBR and thus into limits on public spending. True, there were many slips between cup and lip, but the general flow of the argument was unmistakeable.

Yet there was another reason for embracing M3 ~~which was probably even more~~ important institutionally. ~~xxxxi~~ The rationing of credit had been the form of control for many decades, and ~~xxxxxxxxxxxx~~ particularly by banks statistics of lending/had been the main triggers of the regulatory system. *And the definitions were such that* The increase in M3 could be easily translated into its components on the ~~lending~~ <sup>credit</sup> side:

PSBR less sales of debt to the non-bank <sup>domestic</sup> sector	plus	Sterling lending to the private sector	plus	External and foreign currency transactions <i>[including sales of government debt to foreigners]</i>
		minus		Increase in non-deposit liabilities

These are the credit counterparts of sterling M<sup>#</sup>.M3. / It

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 / Sterling M3 differs from the traditional M3 in excluding sterling balances held by foreigners and the foreign currency deposits of residents.  
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was natural to interpret the main task of monetary control ~~as~~ in its M3 context as simply another version of the control of credit.

Granted the PSBR was substantially funded, the major item was the extension of credit to the private sector. *Cynically speaking* We were still securely entrenched in the business of credit control — it had merely been relabelled "money."

The first experiences with ~~monetarism~~ monetary targets was entirely favourable, particularly after the signing of the <sup>IMF</sup> letter of intent in December 1976. Yet confusion over the ultimate ~~the~~ objectives of financial policy, and particularly the desire to keep the exchange rate from appreciating, ~~and~~ soon led to sterling M3 booming well in excess of the target limit. / The political

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/ In the financial year 1977/8 sterling M3 grew by more than 16 per cent compared with ~~the target range~~ the target range of 9 to 13.  
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paralysis of the winter of discontent, as well as the increasing acrimony in the Labour Party, gave little encouragement for the continuation of ~~the~~ a resolute financial policy.

absurdly  
(Certainly the rapid expansion of the money supply was/inconsistent with the final phase IV of incomes policy - a 5 per cent norm for the rise in wages. In the event <sup>average earnings</sup> ~~wages~~ increased about 13 per cent in the last year of the Labour government - but that left much pent-up wage inflation ready and waiting for the Thatcher government)

The Evidence

The accumulation of evidence on the effects of the monetary mechanism in the U.K. really dates only from the first half of the 1960s. Many of the early ideas were borrowed directly from the United States and particularly from the Chicago School. The first issue was clear: could one identify a stable and largely predictable function for the demand for money? If the demand for money were random and could not be forecast with any consistency or certainty, then we could all stop <sup>going on</sup> ~~talk~~ing about it and turn our minds to more important matters.

In this monograph, however, I cannot give anything like a complete survey and evaluation of the evidence. All I can do is to give a broad summary of the state of debate, and indicate where I believe the balance of evidence falls. \_/

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 \_/ A thoughtful discussion of the present state of knowledge is to be found in David & Laidler, Monetarist Perspectives., Harvard, Cambridge, 1982, Chapter 2.  
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Empirical studies of the demand for money in the 1960s suggested that ~~xxxxxxxx~~, contrary to what had been asserted by generations of economists and by ~~ix~~/the Radcliffe Report (1959), there was convincing evidence that the demand for money was a stable relationship. The precise form of the relationship and the dynamics of causation were still open issues of much dispute. But it seemed clear that, whatever the outcome of such arguments, money, money income and interest rates were not ~~xxxxxxxxxxxxxxxx~~ unrelated. In fact it was



convenient frequently to carry out such analyses in terms of such traditional concepts as the velocity of circulation or its reciprocal, the so-called Cambridge 'k', which is the quantity of money divided by National Income, or GDP or GNP. The results of the work in the 1960s showed that, for the long run relationship, the income elasticity of demand for money was nearly unity and the elasticity with respect to the consol rate was about 0.5 to 0.6. \_/ With this long-run relationship seemingly secure, analysts

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 N.J. AA  
 \_/ In Kavenagh and Walters (1966) "The Demand for Money in the United Kingdom, 1877-1961" Bulletin of the Oxford University Institute of Economics and Statistics, vol 28, p- 93-166, for 1923-1961 the more reliable data in the period post World War I, the elasticity of demand with respect to income was +0.96 and with respect to the consol rate -- 0.55. There was also considerable support from the analysis of short-run (usually quarterly) functions - see Laidler and Parkin (1970) and Goodhard and Crockett (1970).

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 turned much of their attention to the more difficult problems of the dynamics and the nature of the transmission mechanism. \_/

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 \_/ For my own attempt see Monetary Multipliers of the United Kingdom Oxford Economic Papers 1966.  
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The mid-1970s experience, however, appeared to provide stability was a characteristic convincing evidence to contradict the notion that the demand for money in the UK ~~was a stable function~~. The period after the introduction of CCC saw a sustained increase in the ratio of money to GNP (i.e. a decline in velocity) and a sharp increase in ~~interest~~ the yield on

consols. This ran counter to the normal movement that had been observed ~~xxxx~~ over the previous ~~xxxxxxxxxx~~ half a century.

This effect can be seen most readily by plotting the data divided by GNP for the "old M2" against the yield on consols (both averaged over the year). The data produced in figure..... have been adapted directly from Artis and Lewis (1983).\_/ The years 1973,4 and 5 -----

\_/ Michael Artis and K.M.K. Lewis How Stable is the Demand for Money in the United Kingdom ?, mimeographed, University of Manchester, 1983. Artis and Lewis use the "old M2" which comprises currency outside of bank holdings and the sterling deposits of London Clearing Banks, and they report that this amounted to about 86 per cent of M3 in June 1982. This definition of "old M2" ~~xxxxxxx~~ makes it easy to get long series of comparable money supply figures from 1920 onwards. Essentially the Artis Lewis analysis is an extension of the work that Kavanagh and I did in 1966. -----

~~xxxx~~ appear as a marked aberration from the fifty years or so which preceded them. There is simply no other period like it.

This ~~x~~ deviation from the historical relationship had a considerable effect on monetary analysts and eroded some of the faith in monetary control which had been built on the stable results for the last fifty (or even one hundred) years.\_/ It seemed that -----

\_/ See David Laidler, "Monetarism: An Interpretation and an Assessment", Economic Journal, 91, No. 361 1981. -----

yet another great <sup>stable relationship</sup> ~~xxxxxxx~~ of macro-economics had become unhinged.\_/ ~~xxxx~~ ~~xxxxxxxxxxxxxxxxxxxx~~

*Readers will recall that the stability of the (Keynesian) consumption function also disappeared in the middle of the early 1970's*

Yxx

The AL graph however shows that the abandonment of monetarisms claim for demand stability was a little premature. The deviations of the early 1970s proved to be transitory. From 1977 through to 1982 the observations were so uncannily close to the predicted values from the AL fit from 1920-1957 that 1977-82 much, as AL point out, the forecast values have a/smaller ~~xxxx~~ deviation from the true values than ~~xxxxxxxxxxx~~ from the average deviation for the sample 1920-57. To forecast so accurately the outcome 20 years hence is a remarkable performance - perhaps even a unique performance - in prediction with economic time series.

The picture of stability that emerges from the AL figure pertains of course to the long run. We ~~cannot~~ are not able to adduce any such stability for short-run, month by month or quarter by quarter periods. Little or nothing can be learned about the dynamics of adjustment. But, in any progressive program of research, it is important to establish the long run constraints that obtain. If long run velocities conform to a stable pattern, then those who make monetary policy will ignore these relationship at their, or rather the country's peril.

The most detailed analysis of the long run velocities has been carried out by Friedman and Schwartz (1982) for the United Kingdom and the United States. / The methodology they use

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is directed towards averaging out, through taking business cycle phase averages, the variability in the short and medium run in order to highlight the long run underlying relationships.

Friedman and Schwartz analysed the data from 1871 to 1977.

Thus their analysis finished with the great aberation of the ~~mi~~ <sup>Not used</sup> early and mid 1970s ~~and~~ they ~~did not~~ take into account the 'return to the monetarist fold' of 1977-82. Nevertheless FM claim to have

found some remarkable stability in the velocity over the previous 100 years or so. ~~Although~~ <sup>claim</sup> The FM ~~work~~ is supported by sholarship

of the highest possible kind in which the data have been checked and exhaustively analysed for alternative hypotheses. It is a comfort

that they tell ~~the~~ broadly the same story as the crude data plotted

by AL in figure..... But there are some differences - probably the most important is that FM ascribe less importance to the ~~fold~~

The FM results, however, have ~~been~~ been subject to stringent and sweeping criticisms, primarily because of their statistical

interest rate variable then appears in my analyses (Kavanaugh & Walker (1966) or the AL figure.

MP 12

(HE)

or econometric

DF. and N. R. Ericsson

statistical/properties by Professor ~~David Hendry~~ <sup>DF.</sup> ~~He~~ <sup>and N. R. Ericsson</sup> has argued that <sup>better described as</sup> contrary to what FM assert, velocity is a "will-o-the-whisp" and is not distinguishable from a 'random walk'. Essentially <sup>HE</sup> Hendry argues

Monetary trends in the UK

"Assessment with empirical basis: An econometric appraisal of Friedman & Schwartz Bank of England London Oct 1988"

As HE demonstrates elegantly and exhaustively in his Equations (20) to (29) and Table II p. 73.

that the observations of velocity contain less information than Friedmand and Schwartp believe they encompass. This is because the particular observations of velocity are not like "independent drawings from a system which produced the velocity curve like that of AL. On the contrary the velocities are systematically related to ~~the~~ history.

[This can be seen by simple inspection of the observations in the AL figure. Generally the progression is from low velocities (high M/Y) to high velocities (low M/Y), and correspondingly from ~~high~~ low to high interest rates - and from low inflation in the interwar years to the increasing inflations of the years after World War II. But around this general time trend there are many 'loops' which betray some underlying dynamic process not captured by the long-term relationship. The most striking is the long loop during and after World War II. In 1939 to 47 the money supply, relative to income, expanded rapidly at yields on consols which were all rather below the value forecast by the fitted equation. After the war, the monetary stock/ relative <sup>steadily</sup> to income/declined at interest rates which were all somewhat above thee expected values. ~~Other~~ <sup>This is merely one example of the</sup> In other words ~~there are~~ distinct patterns in the residual deviatthons of the observations from the line.

Nevertheless, notwithstanding the great weight of sophisticated econometric testing that <sup>HE</sup> Professor ~~Hendry~~ has brought to bear, it is difficult ~~indeed I find it impossible~~ - to accept that the observations in figure.... as a will-o-the-wisp. Is it a mere accident of history that we have wandered on our random walk from the low <sup>velocities</sup> elasticities of ~~the~~ pre-World War II to the high ones of the post war years? We might, according to the randwm walk explanation, have wandered in

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the other direction to even lower velocities. Like Dr Johnson, when told that he could not refute Bishop Berkeley's proposition that reality, in the form of a large boulder, did not exist, promptly hit the boulder with his stick saying "I refute it thus...", one feels inclined to believe the graphical evidence rather than be persuaded that one is being deluded by optical *illusions*.

But even more clinching is the evidence of 1977 onwards. Both *The* Friedmand and Schwarts *analysis* and ~~He dry's reputation~~ refer to the period up to and including 1977. From 1977-82, however, there is an uncannily close relationship between forecast and observed velocities... Obviously the ~~extreme~~ astonishingly tight fit is something of a fluke. But if one relied on the systematic relationship calculated from the 1920-57 data, one would have done much better in predicting the outcome of the late 70s and early ~~8~~ 80s than if one had projected it as a random walk. The critical test of a proposition ~~is~~ lies in the accuracy of its predictions outside the period-of-fit rather than the extent of correspondence of ~~forecast and true~~ predicted and true value within the sample period. Visual inspection shows that the model passed with flying colours. /

HE however extended their analysis to include 1978-82.

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/ Except of course for the early 1970s to which we return

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~~It will be interesting to see whether this period causes Professor Hendry to revise his view that velocity is a random walk.~~

The early 1970s however remain to be explained away. The rationalisation that comes readily is <sup>to</sup> suggest that it was due to a dramatic change in monetary policy starting in 1971 and running

MP 14

through to 1976. The unprecedented size of the increase in the rate of growth of the money supply over these years, and particularly from the fall of 1971 through to the end of 72 <sup>associated with unprecedented deficits</sup> was a 'shock' to which the financial ~~monetary~~/system had to adjust in the ensuing years. Expectations of very rapid inflation, large demand for credit (to finance the deficits) of both public and corporate sectors) and <sup>for or</sup> high interest rates than would <sup>historically pertain to</sup> normally hold in monetary conditions of this kind - all suggests that the economy was driven off its long run ~~ve~~ demand for money as it adjusted to the ~~new~~ inflationary policies of the 1970s. /

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z/ The early 1970s, with the <sup>decreasing</sup> increasing velocity were a little like the war time years when velocity similarly decreased, and then, as in the mid 1970s, after ~~the~~ 1947 it decreased. But in the 1940s interest rates remained low; this probably represented the widespread belief in the long run stability of the price level. This was eroded in the 1950s and 60s and shattered in the 70s.

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This is a superficially attractive explanation and has been embraced and developed. / But it is also unsatisfactory. If sharp <sup>and sustained</sup> ~~monetary~~ changes in monetary growth cause such <sup>large</sup> deviations from the long-term stable relationships then the forecasts of monetary conditions will <sup>be wanting</sup> break ~~in~~ in accuracy ~~down~~ just when one most needs them.

Ironically the monetary model did in fact forecast the inflationary consequences of the early 1970s far better than any other model. Poor though it <sup>performance</sup> may have been, its <sup>alternative models performed</sup> relatives were even ~~poorer~~ worse. In Towards the end of 1971 and in early 1972, I forecast that on the basis of the ~~rate of~~ increase in the rate of growth of the money supply (M3) (from circa 9 per cent to over 20 per cent per annum), the rate of inflation in 1974 would be 'over 10 per cent and ~~perhaps~~ perhaps as high as 15 per

MP 15

per cent". In fact it was 14.7 per cent. / Other forecasters

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/ "Inflation, inflation, devluation, and more Inflation" Sebag Gilt  
edged REview, May-June, 1982. This article followed quite closely  
a memorandum I had submitted as a part time employee of the Central Policy  
R<sup>H</sup>view Staff to ~~the~~ Lord Rothschild for the attention of the Prime Minister.  
The article also forecast that there would be a current balance of pay -  
ments deficit of 'as much as one billion pounds' in 1974 (it turned  
out to be more than 3 billion) and that in ~~the~~ a year's time (from  
May-June) the government ~~would~~, in spite of their protestations to  
the contrary. would ~~not~~ be driven to impose price-incomes controls,  
(this actually occured in July 1973,)

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had suggested that the rates of inflation would increase little from  
the 1971 value (some even thought a fall was likely). / Thus

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/ For a post mortem, see Michael Intrilligator (ed) Frontiers of  
Econometrics, ~~197~~ <sup>H</sup>Northolland 1976. The main explanation advanced  
by the principal critic, Mr David Worswick (then Director of the  
National Institute of Economic and Social R<sub>e</sub>search), was that I  
had been lucky since the incareassed rate of growth of the money  
stock had just preceeded the great increases in the price of  
imported raw materials and, later, oil. Perhaps so. I hope I  
continue to retain my lucky star.

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in spite of the deviations recorded in the AL figure, The simplest version of the monetarist model performed relatively very well during the great monetary explosion of the early 1970s.

The long run relationship ~~xxxxxxx~~ between velocity and the consol yield, although giving a framework for monetary analysis, does not tell us anything about the relationship between money, real income and the price level. Nor does it say much, if anything, about the chain of causation.

The ~~xxx~~ classical argument, as old as economics, is that an increase in the supply of money which exceeds the demand for money at current prices and real income levels, will ~~xxxxx~~ ~~xxx~~ merely increase prices in the long run; there will be no effect on output. This result ~~xxxxx~~ <sup>emerges</sup> clearly from the Friedman Schwartz analysis (pages 7 and 8) - and indeed <sup>more dramatically</sup> from the history of the last fifteen years of the great inflation. This is of course a long run result. In the short run, for cyclical effects, the evidence is less clear cut. Friedman and Schwartz find that the quantity theory approximation is a good one; monetary variation has little or no effect on output, the effect being entirely <sup>initially</sup> absorbed in the variation in velocity (and ~~presumably~~ <sup>interest rates</sup> the variation in <sup>yields</sup>). Finally FS find that there is a negative relationship between the <sup>phase average</sup> Growth of output and the rate of change of prices in the United Kingdom - a result which appears less surprising today than it would some decade ago. Inflation, whatever its cause, is not 'good for growth' *over the phases of the cycle*

- In Lord Kaldor trenchant illustration: if his waist expands, he lets out the seams in his trousers - he does not go on a diet

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The 'chain of causation' is perhaps the ~~max~~ issue that generates most differences of opinion and emphasis. At one extreme is the Kaldorean/<sup>or Cambridge</sup>view that the money supply is ~~largely~~ virtually entirely an endogenous factor. The money supply simply responds to the needs of trade. If the private sector want more money they can easily 'manufacture' it for themselves, by mutually ~~gxxx~~ extending credit. ✓ The causation is entirely from income and activity to money. This standd in stark contrast to the Friedmand and Schwartz paradigm, where their analysis is dominantly in terms of the government (or authorities) determining the quantity of money, and income and prices are the consequence of adjustments by agents in the conomy.

Both extreme versions are caracatures of reality. But the FS version approaches more nearly the messy process of monetary control. Through all recent history, the Authorities in the United Kingdom have had neither the instruments nor the will to control directly the quantity of money - however that cnccept is defined. The authorities have normally used as their main instrument the short term interest rate (variously labelled Bank Rate, Minimum Lending Rate, and currently the dealing rate for bills). The market is supplied with whatever quantity of money it wants at this interest rate. ✓ The aughorities, ~~xxx~~ over the years, have

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✓ This case has been most cogently put by Tim Congdon  
"Has Friedman Got it Wrong ?" The Banker July 1983 p 117-125  
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had different, and often muturally exclusive, objectives in fixing interest rates - and it is only in recent years that the quantity of money has been among that list of desiderata.

There will be some considerable impulses which flow from income to money demand and supply at these controlled interest rates, a fact which Friedmand has ~~readily~~ frequently acknowledged. \_/

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\_/  
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He argues however ~~thta~~ <sup>by the authors</sup> the main movements of the money supply have been exogenously determined by processes such as that employed in the early 1970s of pegging the interest rate too low. There is no doubt historically that the great expansion of 1971-3 was not due to ~~accidental~~ <sup>on the demand for</sup> effects transmitted ~~through the~~ <sup>money</sup> ~~caused~~ <sup>by</sup> transitorily high incomes. ✓

✓ The Kaldor argument of course goes much further than this. credit  
Essentially it says that money is a private arrangement over which government can have little if any control. ✓ Then indeed government policy with respect to monetary control would not matter - and so it is difficult to see why there is such debate over what is regarded as harmless. -----

Monetary changes are an inevitable result of rates than a country cause

There is no doubt, however, that if the main effects of exerted and money are/best measured in terms of the quantity of money, then control of that magnitude through the manipulation of short term interest rates seems hardly an efficient way of managing policy. The relationship between money and interest rates is never ver precise, and there is bound to be a many aslip between cup and lip. The appropriate interest rates are rarely obvious. Yet, as Congdon points out, the mechanism of ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ supplying the market with liquidity has many advantages - particularly in times of

liquidity crises that it should not lightly be set aside. (We return to this problem in the next section.)

The conclusion is that there is a usefully stable demand ~~xxxxxxfxnm~~ function~~x~~ for money balances, which seems to fail only when there is a drastic change of regime. Secondly the main effect of monetary growth ~~signifixxxxxiixgxxxxxxxix~~ is on prices and not on output. On the contrary there is some weak evidence that inflation and output growth are negatively related.

Money - Wide and Narrow

One of the crucial distinctions made by monetarists and many monetary economists is ~~xxxxxi~~ between credit and money. The essential point about money is that it is used in transactions. You pay your bus fare with money; you do not offer the fare collector a promissory note. A transfer of money discharges obligations; a ~~xxxxxxfx~~ extension of credit delays the discharge of obligations. Money is used to pay bills, credit is used ~~xxxxxxpxxxxixi~~ to delay paying them. Since, however, most money in modern economies is also credit - usually extended by the holder to the government (e.g. ~~xxxxxxx~~ paper currency) - it is easy to confuse the two./ ~~xxxxxxx~~

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\_/ The exception to this general rule is coins of precious metals where the intrinsic value is near to its exchange value -----

customarily and widely

Money ~~is~~ is that limited class of credit instruments which are used in the buying and selling of goods and services. Thus one would clearly not count £50,000 negotiable CDs as money; so far as I am aware no-one would ever accept such an instrument to pay an outstanding bill. Money is then naturally defined in terms of currency (notes and coin) and checkable accounts held in financial ~~inst~~ institutions such as banks and building societies.

Obviously there is no ~~xxxxxxx~~ way in which one can define <sup>for all time</sup> L ~~the~~ <sup>that</sup> instruments L are used as money. Over time they change. For example, it is only recently that building societies have offered checkable deposits; hitherto ~~the~~ deposits in such ~~xxxx~~ institutions were not functioning as money. And on the other hand not all checkable deposits should be counted as money; some are wholesale <sup>on which interest is paid</sup> deposits L and can only be ~~xx~~ encashed in terms of large denominations.

← Although the boundary does shift, the criterion for deciding what <sup>fairly</sup> is and what is not money is/straightforward and causes difficulty only when the categories are passing through some metamorphosis. Over the years the UK approximation to transactions money has been M1 - currency plus sight deposits of the banks. But recently the changes in the ~~bank~~ financial system have ~~gxxxxxxx~~ induced the authorities to ~~xxxxxx~~ develop a "new M2". L This counts

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/ In the Bank and Treasury documents this is referred to as merely as M2 - but we need to distinguish it from the old M2 <sup>that</sup> L <sup>appeared in the M2 figure and</sup> which consisted of currency plus the deposits of London Clearing Banks.  
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in the checking accounts of building societies but nets out the wholesale interest bearing sight deposits. It approaches much more closely the concept of transactions balances.- ~~xx xxxxx~~

It is money in this transactions sense that plays the central role in the theoretical structure and the propositions of monetarism. Credit has but a minor role. Yet for much of the empirical analysis, many of the studies have used indicators for 'money' which have included substantial credit instruments which are never or very rarely used for transactions purposes. \_/

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\_/ In FS, for example, money includes the time deposits of commercial banks.  
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Indeed the definition that was adopted in the MTFPS was for sterling M3 - about <sup>60%</sup>~~2/3~~ of which <sup>is</sup>~~was~~ interest bearing credit instruments which are not used for transactions purposes. True much of this credit was highly liquid and could be rapidly and almost costlessly transformed into checking account balances or cash. ~~But~~ It was, in the IMF phrase, quasi-money and not transactions money.

There were many ~~the~~ reasons for embracing a wider definition of money .

First, and of dominant importance for the comparable studies of FS, it was easier to get long runs of <sup>comparable</sup>~~reliable~~ data on somewhat wider definitions of money. Secondly, and particularly important in the case of the United Kingdom, it was possible to relate the wide ~~M3~~ to the markets for credit, and the impact of the demand for credit by the public sector. This provided a degree of ~~far~~ continuity with the regime of credit monitoring and rationing and most important for monetary analysts ~~which~~.... plus a change.. Thirdly, /up to the early 1970s

all the monetary measures moved in ~~very~~ close harmony. When Kavanagh and I investigated the data from the 1870s to 1961, we found that the definition of money, whether wide or broad, had largely only

But of some other reason or agency had to supply the cash or checking account balance

scaling effects in the equations. / Consequently it did not

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 / This was not discredited by the more detailed work of  
 David Sheppard *The Growth and Role of UK Financial Institutions 1880-1962*  
*Melton*,  
 and the exploration of adjustment hypotheses in Lindler D.  
 and Parkin M.J.M. The Demand for money in the United Kingdom  
 1956-67; ~~xxxx~~ preliminary estimates, Manchester School, 38, sept 1970.  
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much matter which definition of money was used, the statistical  
*when suitably rescaled*  
 results were more or less the same, ~~subject to scaling~~. The  
 choice of M3 therefore encountered little or no resistance from  
 monetary analysts.

The wide M3 measure received an additional fillip as ~~people with~~ *with*  
*the analysis of*  
 began to analyse the genesis of the great inflation of the mid-1970s.

The M3 measure had been a ~~xxxx~~ somewhat better predictor of the  
~~xxxx~~ inflation than any of the narrow measures, particularly M1. /

[ In the course of discussions about monetary policy in 1981  
 / Sir Geoffrey Howe and Mr Nigel Lawson pointed out that ] I had  
 accurately predicted the ~~xxxx~~ 15 per cent inflation of 1974 by  
 using M3 statistics in 1971/2. [ It was also reported that ] Mr Barber and  
 Mr. Heath, at that time, ~~xx~~ argued that, from the data on M1, there was  
 little if any monetary laxity. ~~XXXXXXXXXXXX~~ However, ~~xxxx~~ any  
 rational review of the record will [ both discredit the Heath/Barber  
 position, and show ] that, although M3 performed somewhat better during  
 this period, both M1 and the monetary base Mo also predicted  
 increase in  
 with fair accuracy the arrival of the/inflation of about 7 per centage  
 points.

(*For more to be completed*)

Thus the arguments in favour of adopting <sup>one</sup> ~~a/b~~ <sup>1</sup> ~~target~~ M3 target appeared quite coggent if not overwhelming.

In retrospect <sup>this</sup> ~~it~~ appears as remarkable capitulation of monetarist <sup>principle</sup> ~~theory~~ to institutional continuity. True the harmony of the statistics provided a good excuse and, so far as I know, no monetarist put up a fight for a money as apposed to a credit measure. Thus the MTFs and political reputations were based on the volati~~v~~e credit base of <sup>2</sup> M3.

A parable will illustrate the problem. Consider an economy which consists of two sectors <sup>Household (H) and Corporate (C)</sup> each of which is substantially self financing, so that there is no flow of credit between them. Now consider some event occuring that makes the H sector rich and the C sector equivalently poor for a specific period (say one year), after which the situations are reversed for the same period and we get back to the status quo. <sup>in year 3</sup> Clearly there

will be an increase in savings of H and the accumulation of financial assets - and a decrease in savings and an increase in the liabilities of C. ~~With~~ <sup>and</sup> the banks acting as intermediaries <sup>interest bearing</sup> they will take/ deposits from & H and lend them out to C. <sup>deposits and</sup> Bank/credit will expand. But there is no reason why this expansion <sup>and interest bearing</sup> of credit should be associated with an increase in nominal income and an increase in the price level. <sup>and narrow (transactions) money balances</sup> Transactions/remain what they were before - only the quantity of credit has changed. <sup>and</sup> Thus the quantity of credit

<sup>-----</sup>  
/ In principle there is no reason why the ~~xxx~~ rate of interest should change since the additional demand and supply of credit are equal.  
<sup>-----</sup>

can change without having any effect on aggregate demand.

This ~~xxxxxxx~~ <sup>useful</sup> description serves as a ~~xxx~~ caricature of <sup>1979</sup> 1980/81 in the United Kingdom. Because of the mixture of high real wage

A necessary condition of the operation of credit is that the banks can acquire reserves at non-penal rates when intermediation is profitable



increases, the appreciation of sterling and the beginning of the international recession, the corporate sector was in dire financial straights. / Correspondingly the Household sector was enjoying higher real incomes, ~~and~~ <sup>P</sup> personal savings increased from 10.8 per cent of disposable income in 1977 to 15.6 per cent in 1980.

-----  
 / The <sup>normal</sup> financial ~~surplus~~ of industrial and commercial companies became a ~~1.6~~ bn deficit in 1979 and a mere ~~1~~ 558 mn surplus in 1980.  
 -----

The natural corollary was an expansion of bank credit and interest bearing deposits, which largely found their way into the M3 aggregate. /

-----  
 / There were at times many other factors also working to increase the degree of bank intermediation; the elimination of the "corset" with effect from July 1980, the virtual extinction by inflation of the corporate debt market, and the ~~XXXXXXXXXXXX~~ reluctance to engage in rights issues with the equity market so 'low', *inter alia* <sup>o</sup>

-----  
 The attempt by the authorities to contain the burgeoning M3 statistics took the form of raising short term interest rates through the MLR mechanism in ~~XXXXXXXXXXXX~~ and effort to sell more government debt to offset the additional bank lending. But as an inadvertent outcome, the MLR increases induced a <sup>severe</sup> squeeze on transactions money M1 and the monetary base. / No doubt the increases in interest ~~and~~

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 / From a growth rate of almost 17 per cent ~~from~~ <sup>from the end of</sup> ~~IX/III/77~~ to the end of III/78, ~~the~~ <sup>M1 growth</sup> ~~fell~~ to virtually zero from IV/79 to III/80

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and curtailed to some extent  
 rates contained the growth of bank credit, but this effect appeared to be small compared with the severity of the effects on transactions balances.

~~xRxxhxxpxxxxhxxxxiixiixkxxkxixixixxx~~

One of the main lessons to be absorbed from this experience is the primacy of the transactions definition of money for monitoring and control purposes. Money matters much more than credit. This does not mean, however, that there is no knowledge of monetary conditions to be gained ~~from~~ by monitoring such credit magnitudes as M3 etc. Clearly there is much to be gained from keeping a weather eye on ~~burgeoning bank credit, for example~~. Nor can ~~to the industrial and commercial companies~~ anyone doubt that if bank credit/had been curtailed by effective rationing devices or yet higher interest rates, there would have been considerable repercussions on real output and the level of prices. A credit crunch can be effective but at fearful cost. ~~Monitoring kkk credit conditions~~ Similarly one ~~can use other kkkkkkkk indicators of monetary/conditions, such~~ and credit can use other ~~monetary/conditions~~ indicators of monetary/conditions, such as the exchange rates, interest rates, inflationary expectations, etc, to check consistency. Although, as we shall see, they are often very difficult to interpret - and this has to be borne in mind when using such data.

Monetary Policy and the MTFS

The role of monetary policy varies according to the time period considered. It is clear, however, from all the empirical evidence accumulated over these many years, that our knowledge of long run effects is far more secure than for short run consequences.

In the long run ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ a persistent increase in the rate of growth of the money supply is transmitted into an increase in the rate of inflation. But how long is the run? Alas there is no precise answer. It seems however that an increase in the monetary growth which occurs for some six months and is then reversed in the following six months will have little or no effect on the rate of inflation. On the other hand we are virtually certain that if the higher monetary growth is maintained for ~~two~~ <sup>three</sup> or more years, then higher inflation will result.

For control of inflation therefore we need to plan ~~controlling~~ <sup>low increases</sup> in the monetary aggregates over a period of at least three years - and we had best try to ensure that growth of money does not get substantially off course in any rolling period of <sup>more than</sup> one year. For practical planning purposes we might regard the long run as four ~~or~~ to five years - the so-called medium term.

In the business cycle, <sup>period covered by the</sup> the main role for monetary policy is to avoid exacerbating the cyclical swings. ~~xxx~~ The combination of the unpredictable timing of the cycle and the fact that monetary effects are slow ~~xxxxx~~ ~~xxxxxx~~ and uncertain in the lags means that ~~xxxxi~~ monetary variations are unsuitable for countercyclical policy. All that can be done is to ensure that monetary policy does not become pro-cyclical and make the swings wider than they otherwise would have been.

In the short run - that is to say in the day-to-day operation of monetary policy the main objective ~~is~~ is to ensure the liquidity of the financial system. The authorities will be called upon daily to relieve 'shortages' <sup>or to syphon off 'excesses' 'Surpluses'</sup> on the money markets. But more important if there is a liquidity crisis and a run on the banking system (or on a large bank), then the authorities should be ready to supply liquidity - or if there is a run on deposits to supply currency - to restore the public's belief in the integrity of deposit liabilities. \_/

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\_/ This is a sort of lender-of-last-resort function of monetary policy, and in its banking crisis manifestation, it is often called Bagehot' Rule. There are many problems of moral hazard with ~~these arrangements~~ these arrangements, but they cannot be discussed in this monograph.

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The MTFS was primarily concerned with the problem of eliminating inflation (and budgetary imbalance) and restoring a low and stable rate of inflation. It was a medium term program in the monetary sense that it anticipated a permanent reduction in the rate of inflation. As for the cyclical effects, it was never part of the policy to design to vary the money supply targets ~~with xxxxxxxxxx~~ to counter expected cyclical oscillations. \_/

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\_/ This is distinct from the PSBRs in the MTFS where it was thought that some modest overshooting should be allowed if the economy were in a recession. In combination with the monetary targets this implied additional sales of gilts in a recession to cover the increased deficit.

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This rejected 'fine tuning' 'touches on the tiller' etc as likely to be ~~xxxxxxx~~ pro-cyclical and ultimately inflationary. However the MTFS recognised the essential day-to-day requirements of maintaining the liquidity of the financial system. But if there was a need to expand ~~xxxxx~~ <sup>to ensure the liquidity for even</sup> the money supply/to counter a run on the banking system, then any increase could be readily offset before it had a chance of promoting inflation.

Since the monetary targets of the MTFS were set in terms of M3 (for broadly the reasons discussed above), there was a crying need to show that they were compatible with the planned budgetary policy. In addition to the extension of bank lending to the private sector, ~~One~~ of the main demands ~~from~~ <sup>mainly</sup> for credit comes from the governments PSBR, which in turn arises/from expected public spending and tax revenues. Thus the M3 target had to be consistent with the targets for public spending and revenues. \_/

----- volatile -----  
 \_/ There are other/elements in the equation. The overseas contribution - for example by residents switching from sterling to foreign currency deposits - may have a considerable effect on sterling M3 in a particular period. But over the longer run these elements will tend to cancel out. Similarly the net addition of non-deposit liabilities may exhibit volatility in the short run, but little in the longer time span. Perhaps the most volatile element - and the one most difficult to forecast - <sup>in sterling</sup> is bank lending/to the private sector, as discussed above.

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 Such consistency is however in its turn entirely consistent with considerable year to year variations in the PSBR and the growth of M3. One would not expect them to march in step - although with controlled and 'sticky' interest rates one might induce some

some contrived <sup>n</sup> annual correlation. But in the long/run there or even medium must be some consistency, since, if the government runs ~~xxxxxxxxxxxx~~ higher and higher ~~xxxxx~~ PSBRs, then it must continue reducing the price of its gilts in order to fund the deficit and maintain its M3 targets. But there is a limit to the extent to which the ~~xxxxxxxxxxxx~~ ~~xxxxxxxxxxxxxxxxxxxx~~ private sector will absorb gilts. And as has been repeatedly demonstrated, the attempt to force/gilts down the throats of unwilling portfolio managers gives rise to very damaging oscillations in interest rates and the price of government debt. Funding strikes and financial crises are the consequence of high PSBRs and low M3 targets. / The MTFS sought to, and from

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 / See House of Commons, Treasury and Civil Service Committee, memorandum on Monetary Policy (July 1980), where both Lord Kaldor and Milton Friedman gave evidence from somewhat different points of view.  
 -----  
 1981 onwards through to 1984 did avoid any <sup>sustained</sup> ~~marked~~ funding strike and financial crisis.

This consistency provided a necessary but not sufficient condition for the credibility of the policy. Another precondition for credibility was that the authorities had or were willing and able to acquire <sup>and wield</sup> the instruments to bring this policy into being. Apart from the fiscal instruments, the main control on the monetary side was the manipulation of the short run interest rate. Although monetarists had long argued that interest rate controls were a most inefficient and difficult way of controlling monetary aggregates, this had been the main form of control in Britain for ~~xxxxxxxxxx~~af, literally, centuries. During most of that period there had been no persistent inflation - and over long periods there had been pervasive but gentle deflation. But in view of the

*recent* of the ~~ix~~ experience *(in 1971-3)* following CCC ~~when~~ the government ~~xxxxxx~~ ~~deliberately~~ pegged interest rates, from political motives, and allowed the inflation to explode, there was initially considerable doubt about the performance likely from the Thatcher government. The cynics sighed... plus *ca* change.

In some extreme versions of the theory of expectations (socalled rational expectations), the announcement of a policy by government would have wonderful effects. People would quickly adjust their behaviour to the new parameters of policy, ~~xxxxxxxxxxxxxxxx~~ including the low inflation rates to be achieved by the MTFS. But such theories should be regarded as parables or ideals; they should not be taken as recipes for reality. *indeed more* It is rational not to believe a government's *will implement its* protestations on policy. If one judges only by the historical record, ~~The paths of politics~~ seem inevitably

*-----*  
 / Readers will recall that a certain indicator of the imminence of devaluation was the frequency and vehemence with which the Chancellor denied that he had any such thoughts in mind.

*-----*  
 to be a long *painful path* ~~road~~ of U turns.

And there were good *(technical as well as political)* ~~xxxxxxxx~~ reasons for doubt if not cynicism. In addition to the optimistic targets for public spending, discussed above, not only the Bank but also many monetary economists were doubtful about the ability of the Authorities to control the growth rate of sterling M3.

As the views of the Bank filtered out to the journalists, it seemed, as is natural, the Bank was not ~~xxxx~~ in favour of a limit on its discretion in the form of a <sup>meeting a target</sup> monetary aggregate. The Bank was ~~generally in favour of~~ <sup>generally well disposed towards</sup> an exchange rate target and supported the case for the entry of the U.K. into the European Monetary System (EMS), at a suitable parity of course. Moreover there was considerable trepidation of the effects on Sterling M3 (and ultimately justified) of the abolition of the corset in mid 1980.

The opposition to the MTFSS by those economists and commentators who still believed in substantial discretionary policy and targets ~~xxxxxx~~ in terms of real variables, such as growth of GDP, level of unemployment or employment, etc was entirely understandable; their opinions had a Bourbon predictability, What was more surprising however was the opposition, albeit on technical grounds, from many monetarists. / While these critics usually embraced the

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 Economists such as Brian Griffiths, Roy Batchelor at / The City University Centre for Banking and International Finance were the most prominent critics - and they were joined by many ~~xx~~ of the most distinguished monetarists in the United States, such as Alan Meltzer.  
 -----

targetting of sterling M3, largely on the empirical grounds that it was marginally better than other aggregates in the recent past, they believed that the use of interest rates as an instrument was clumsy, inefficient and perhaps ultimately ineffective. They argued that the best method ~~xxxxxxx~~ was monetary base control (MBC) /  
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/ See, for example, Alan Meltzer, Central Bank Policy; Some First Principles, Annual Monetary Review, No.2 (1980), City University, London.  
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There was, however, some ambivalence, perhaps inconsistency, in the position taken by the monetarist critics. A monetary base control method combined with a sterling M3 target would only be efficient if there was a close and predicatable relationship between the monetary base and sterling M3. While the relationship was ~~xxxxxx~~ <sup>or so</sup> monthly and yearly valid for long runs - say more than/three years/ - the/variation in the ratio of the monetary base to sterling M3 was consierable. \_/

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\_/ In fact, the monetary base was very well contained during the ~~fixxx~~ all the years of the Thatcher government. But the ratio of sterling M3 to the monetary base expanded probably ~~xx~~ faster than any period in recent history.

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There is little or no point in trying to use the MBC system to control M3. There is however a logically consistent argument for MBC if the monetary base is used as the target as well as the control. Then the argument is that, provided the monetary base is held at a suitably low rate of growth (say 0 to 2 per cent), it is very unlikely that there will be any substantial persistent inflationary pressure. \_/ This was, however, a far cry from the MTFPS, but

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\_/ This was a fair representation of the positions taken ~~xy~~ <sup>by many</sup> distinguished monetarists such as <sup>the case</sup> Karl Brunner and Alan Meltzer as well as William Fellner. ~~xxxxxxx~~

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~~xxxxxx~~  
the issue of Mo will be taken up later in this narrative.

Monetary Policy and the EMS

aspirations

There have long been ~~plans~~ aspirations to form some monetary union of the European Community, which would correspond to the trade and fiscal harmonisation implicit in the Treaty of Rome. The breakdown of the Bretton Woods system of more or less fixed exchange rates and the erosion of confidence in the stability of the dollar, added to the European view that there should be some substitute for the role of reserve currency. The initial 'snake', introduced from ~~the~~ early 1972, was modelled on the late lamented Bretton Woods, with exchange rates 'fixed but adjustable'. \_?/

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\_/ The snake had a checkered history, ~~xxxxxxxxxxxx~~ with the early defection of three of the four major currencies, leaving only the German mark and its satellite currencies. ~~xxxxxxxxxxxx~~ However by the time of the introduction of the EMS, ~~xxxxxxxx~~ the snake had become very permissive indeed and had few pretensions to <sup>be a</sup> the /fixed rate system - adjustments and were large frequent.

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The EMS was introduced in ~~the~~ early 1979 and included all the major currencies of Europe except ~~the~~ sterling.

The essence of the EMS ~~xxxxxx~~ consists of agreeing central rates with respect to the European Currency Unit which obtain until the next 'realignment'. The member countries then use policies of intervention and monetary control in order to keep their rates within a band  $\pm 2\frac{1}{2}$  per cent, except Italy where the band is  $\pm 6$  per cent. In practice however the rates are usually maintained fairly close to the central value.

Although the system has many of the features of a mini-Bretton Woods, there is no systematic relationship of any currency, including the Dmark, to the US dollar. The most important exchange rate in the trading world, the Dmark/dollar rate, was excluded from the EMS.

In assessing the effect on monetary policy of ~~the~~ membership of the EMS one must initially draw a sharp but essential distinction, <sup>First the ideal.</sup> between the ideal~~x~~ system and the real~~ixx~~ system. / If the objectives meant anything, then they required the exchange rates to be virtually fixed with respect to one another for a specific period (say one year ~~xxxxixx~~) before the next realignment. If this is the case, <sup>assuming there are no</sup> and ~~ignoring~~ oscillations around the central values, the markets can expect periods/when the exchange rate between the Italian lira and the Dmark are fixed.

But if the exchange rate is fixed for an average of six months, then this will imply that the ~~x~~ rates of interest on financial assets with those maturities will also be roughly the same. If, after six months, I can exchange my lira for Dmarks at the same rate at which I bought them, I will find it profitable to switch into lira deposits if the interest rate in Italy is a <sup>tithe</sup> above that in Frankfurt. <sup>for those maturities</sup> Thus nominal interest rates/must be approximately equal; portfolio arbitrage will ensure that outcome. / — run on

level of the  
 / There will be ~~effect~~ some transmission of this effect to other so the yield curve will be largely determined by this arbitrage maturities/- but we leave that aside for this argument.

It follows that by joining the EMS, as in any fixed exchange rate system, Britain would have to forgo a substantial degree of sovereignty over here monetary policy".\_/

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\_/ The government would have a number of other monetary instruments - and varying the maturity structure of public debt such as reserve ratios/- which could be used, but there is no doubt that interest rate policy is the primary weapon.

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This ~~is~~ interest rate equality illustrates one of the main difficulties - an inherent contradiction no less - with the EMS. One of the objectives of the EMS was to produce 'convergence' of the <sup>/ rates of inflation of/</sup> member countries - and in these terms it meant converging on the inflation rate of Germany. Thus it was hoped that Italy, with an inflation rate of about 15 per cent, would eventually converge to the German inflation rate of about 3~~3~~ per cent. But the requirement that, under a fixed exchange rate, German and Italy have the same nominal interest rate - say ~~3~~<sup>7</sup> per cent - means that the real interest rate in Germany is high and positive (6 per cent) whereas the real rate in Italy is negative at minus 6 per cent, If the monetary authorities operate an interest rate regime in controlling their domestic money supply, there will be a great pressure to expand money and credit in ~~the~~ Italy, whereas in Germany there will be a substantial financial squeeze.

This is precisely the opposite monetary policy to that which would move towards 'convergence'. Monetary policy has not been merely neutralised by the ~~EMS (considered)~~ fixed exchange rate system, it has been made perverse. If countries still seek convergence, then this must be achieved mainly through fiscal policy - and indeed

¶

fiscal policy will have to offset the malignant effects of the EMS monetary policy. It is often claimed that the EMS has had a ~~substantial~~ substantial effect in inducing member countries to take stringent fiscal action which they would not have entertained had they not been members of the EMS. This is true. But it is odd to credit the EMS with discipline that arises from its distortions. ✓

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✓ Am I alone in finding it odd that exchange rate fixity and the concomitant ~~fix~~ equality of interest rates is described as 'closer monetary cooperation ...in Europe' ? (Five Years of Monetary Cooperation in Europe, EEC, COM(84) 125 final, March 1984.) Fixing exchange rates and interest rates will produce divergent monetary policies.

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In reality, however, the EMS diverges substantially from the fixed exchange rates with free capital markets that we have outlined above. First there are substantial restraints on the free flow of capital - particularly by France and Italy, so that arbitrage is nowhere near perfect. Indeed in the case of France <sup>and to a lesser extent in the case of Italy</sup> the capital constraints have become considerably more stringent since France has been a member of the EMS. One must be wary of post hoc ergo propter hoc but this evidence is not inconsistent with the fact that France would not have needed such controls if she had not been constrained by the pseudo fixity of exchange rates. Willy nilly, ~~thereby~~ regulation of capital flows has enabled considerable deviations in interest rates between member countries, so the countries have been able to pursue more appropriate monetary policies than those which were implied by a strict EMS.

Secondly, even over quite short time horizons, the exchange rates have not been fixed. This is partly because of the width of the band within which currencies can move - up to 5 per cent for ~~most~~ all except Italy which can move as much as 12 per cent. / But the main

/ It must be noted that the practice of countries was to attempt to keep their exchange rate ~~near~~ on the average close to the central value and not to bump against ceilings and floors.

reason is that changes in the parity have been frequent and sometimes quite sudden. ←

The forward markets reflect all these uncertainties about future rates of exchange. And it is noticeable that the forward discounts <sup>and Italy</sup> ~~for France~~

The average percentage change <sup>(ignoring sign)</sup> from month to month (end) in the exchange rate of the French franc and the Italian lira from 1979 to 1983 was 0.8 per cent. / If the movement is all one way, as it was substantially

/ See 'Five Years of Monetary Cooperation in Europe', Table 1.

in the case of Italy, this represents about a 10 per cent depreciation of the lira during a year. Although currencies outside the EMS exhibited greater month to month variability, on this measure, there were many more negatives cancelling out positives, rather than the <sup>more or less</sup> steady downward drift of Italy and France.

in the EMS group, with respect to the Dmark, <sup>were and</sup> ~~they~~ are usually larger <sup>\*</sup> than the ones pertaining to the UK. Being inside the EMS did not seem to reduce the insurance premium one had to pay to avoid

exchange rate risk. On the contrary insuring against exchange risk cost more if you were Italy, France or ~~Spain~~, than if you were outside like the UK or USA.

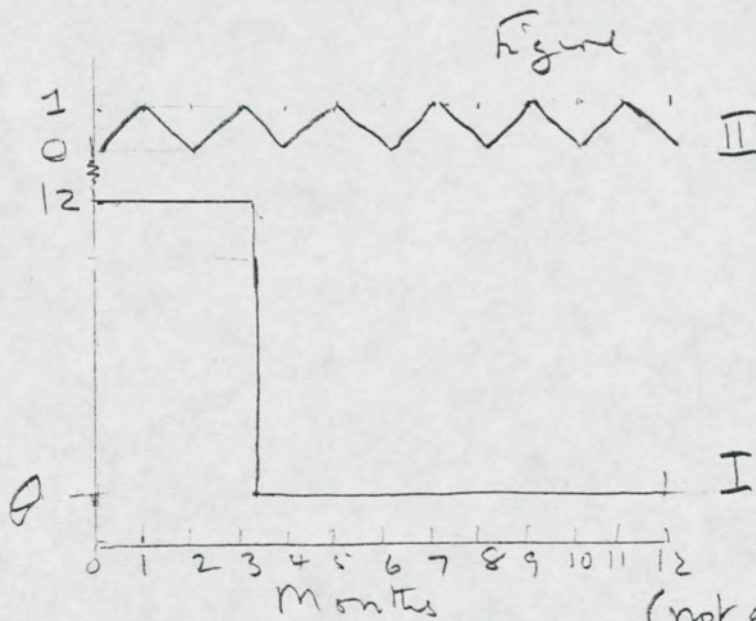
for more on p. MP(38)

MP (38)

Thus on March 27<sup>th</sup>, 3 month forward dollars commended a 5 percent premium in DM, and a 6% discount in Lira. This corresponds to the annual 10% drift of the lira against the DM in 1983. ~~The~~ Sterling however was at a premium discount of only 1.74 percent. And of course, three month interbank reflected these at 5.85 in Germany, 17.4 in Italy and 9 in London

Although the EMS has removed some of the short term, month-by-month <sup>(unsystematic)</sup> "random" variations in exchange rates, it has not reduced significantly the systematic variation which can be forecast by the market. /

/ The ECE Study "Five Years of Monetary Cooperation in Europe" measures exchange rate instability by the size of the average monthly absolute change in per centage terms. It is worth noting therefore that the same ~~max~~ measure of variability (i.e. 1 per cent a month) would apply to the following two series. In series



(not atypical of the EMS realignments)

I there is one big 12 per cent fall, whereas in the other series (II) there is a plus one minus one pattern for each month. Thus the same measured result masks a very distinct and different reality.

together with capital controls  
This ~~variation~~ variation in EMS exchange rates/has enabled the  
countries to pursue ~~monetary~~ monetary policies - as  
manifest in their interest rates, which were not entirely  
counterproductive in inducing 'convergence'. The basic  
inconsistency between fixed exchange rates and convergence  
remains.

In the rather messy EMS system, there has been no evidence  
of convergence. As the ECE paper admits, the mean absolute  
deviation between annual price inflation increased slightly  
from 4.2 per cent in 1979 to 4.4 per cent in 1983 - although  
as always  
great things are expected for ~~the~~ the years to come. The  
record on convergence so far is rather dismal, but more  
~~important~~

important ~~is~~ is the fact that the EMS has buttressed the  
latent argument for greater capital controls and reductions  
in the degree of convertibility.

The EMS was also presented as a step on the grand  
process of monetary integration of Europe - perhaps ultimately  
towards one central bank, one currency, and one economic policy.  
If one entertains such ultimate goals, then the EMS seems to me  
to be a step backwards. Fixing prices (like exchange rates) creates  
forces and divergence or indeed agricultural prices  
centrifugal ~~forces~~ not centrepetal forces and convergence. The  
road to convergence is to harmonise ~~the~~ the  
great quantity determinants of monetary conditions - namely the rate of  
growth ~~quantity~~ of money, and the budget deficit. If the members  
similar  
each pursued policies of/low monetary growth then there would be



the basis for eventual convergence. A medium term financial strategy is the right approach.

It has been claimed that the EMS is one way in which member states will accept the ~~disciplinerequired~~ fiscal and monetary disciplinerequired for convergence. The ~~example~~ *politics* of France in the period of the socialist government 1981-84 <sup>are</sup> ~~is~~ presented as an example of such discipline. And it is true that the expansionary program of the Mitterand government from ~~1981~~ the assumption of power in 1981 ran only until after successive devaluations in October 1981, June 82, and *March 83* March 1983. Then/the government instituted <sup>budget</sup> and austerity program, ~~ix~~ aimed at reducing the deficit to 3 per cent of GNP and monetary growth to 9 per cent. Of course one cannot be sure what policy the French government would have pursued if they had not been members of the EMS. But we do know that the behaviour of the British ~~xxxxxx~~ Labour government in the period 1974-76 was quite similar. / Unbridled expansionism -----  
/ The main exception is that Britain did not devalue until 1977. -----  
 in 1974-5 was followed by substantial squeeze in 1976. Ironically in spite of the fact that Britain was not in the snake, the exchange rate against the dollar was pegged over this period ! Thus protestations that the French government were largely or even significantly induced to the austerity of 1983 by membership of the EMS must be viewed with skepticism. It is entirely understandable that the supporters of the EMS should claim such credit as falls their way.

The conclusion is that it is ~~diffmkt~~ difficult to see what The United Kingdom would gain from joining the EMS. Certainly under the Thatcher government, and conceivable under alternative governments, there ~~would~~ is no need to bolster the anti-inflationary policies with psuedo fixed parities.of the kind practiced in the EMS. At most the EMS might reduce the very short term/weekly, or monthly variations in the exchange rate against the ~~EMS currencies~~ EMS currencies. But because of thick and almost perfect forward markets research suggests that/such short term movements have little effect ~~main~~ if any/inhibiting of trade. ~~xxxxxxxxxxxxxx~~ On the other

-----  
 \_/ Seethe research carried out by the British North American Association.....

A survey of firms showed little concern with the short term variability of exchange rates - and firms were apparently well versed in buying kforward cover. Under ffloating conditions the firms could either buy certainty in the forward market or take their chances on the spot market. With a/real fixed rate system that choice is deined them.

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 hand those who seek eventual monetary union of Europe had best pursue it through quantitative convergence rather than exchange rate fixity. Britain will best serve monetary union in Europe by urging the right policies rather than embracing the wrong ones.