9. Keynes and British monetarism

These three papers, which are the most 'academic' in this volume, largely speak for themselves. Their main point, as explained in the Introduction, is to demonstrate that Keynes, unlike the so-called 'Keynesians' in the Treasury, British universities and elsewhere, was very concerned about how interest rates, credit growth and the money supply affected economic activity, employment and inflation.

Are We Really All Keynesians Now?

From an article of the same name in the April 1975 issue of Encounter.

In the mid-1970s, when Britain's inflation ran at an annual rate of over 15 per cent for extended periods of time, a particularly common position in the public debate was that inflation should be reduced by an incomes policy. The phrase 'incomes policy' meant that controls should be imposed by the Government over particular wages, dividends and prices, in order to restrict the overall rate of inflation. Economists urging this policy usually called themselves 'Keynesian'. They were distinguished from the 'monetarists' who thought that excess demand was responsible for rising prices and that slower monetary growth was the right answer to inflation.

Having been an avid reader of Keynes as a student, I was puzzled that the advocates of an incomes policy should adopt the 'Keynesian' label, because I could not recall Keynes recommending an incomes policy during peacetime at any stage in his career. I therefore wrote the following article for Encounter. *It argued that the 'Keynesians' had no textual basis in Keynes's opus for their policy prescriptions, and that his own views on inflation control were conventional, with a strong emphasis on the value of monetary policy.*

Tribal warfare is not the most attractive feature of contemporary economics, but it is much the most exciting. A BBC2 'Controversy' programme on inflation in September last year had much to recommend it as a sporting occasion. But the vigour of debate occasionally makes it less careful and precise; distinguished economists become misled by their own slogans and tend to assert glibly what they know should be argued cautiously. One particular vice is the habit of attaching a brand-name to a school of thought, not with the intention of designating a common theme, but with that of heightening rhetorical impact. It is right to be suspicious of this tendency because it conveys a possibly spurious impression of unanimity, of a confederation of intellects, which can persuade non-participants in the debate by sheer force of numbers. But there can be a still more serious reason for distrust. When the confederation becomes known by a special name there is a danger that the name can give a distorted idea of the quality of its intellectual weaponry. The danger is greatest when the name used is that of a much revered warrior, now dead, who achieved a number of famous victories in his lifetime.

In economics, the revered warrior in all confrontations is still John Maynard Keynes. A quote from Keynes, no matter how slight and trivial, appears to silence opposition. It has the same force as an appendix of mathematical reasoning or a half-dozen learned articles. It can be a powerful blow in debate and, indeed, it can sometimes serve as a substitute for thought. It is important, therefore, to examine carefully the credentials of any group which calls itself 'Keynesian'. At present the Keynesian label has been attached to a body of economists in England, principally from Cambridge University, who have certain special views on the problem of inflation control. In choosing this label they have – or believe they have – a great advantage. It is a commonplace that Keynes was worried above all by the depression of the 1930s and the attendant unemployment, and that his work on inflation was insubstantial and can be neglected. The Keynesians therefore have freedom to propound their own views as those of Keynes. This freedom amounts to a licence to counterfeit his intellectual coinage.[1]

In fact, it is not true that Keynes was uninterested in inflation. He lived through the most rapid inflation of the 20th century: that between 1914 and 1920, which ravaged the British financial system and devastated the currencies of most European countries. His writings on inflation are extensive. The consistency of modern Keynesian views on inflation with Keynes's own position can be checked. It emerges that several leading strands in Keynesian thought cannot be said to have their origins in Keynes's work. The claim that there is a close correspondence between the two is based on a myth – a myth which has been carefully nurtured by a number of English economists who collaborated with Keynes in the 1930s, but who have outlived him and propagated an influential, but spurious, oral tradition. Tribes, even tribes of economists, need myths. They are a form of emotional nourishment, a sort of spiritual subsistence level. It is important that this particular myth be exploded.

It may help the argument along if a summary of the Keynesian position is provided. I hope that this summary does justice to Keynesian thought, despite the obvious and unavoidable danger that, by highlighting its central elements, its variety and subtlety will not be sufficiently acknowledged.

The inflationary process is seen as basically a question of 'cost–push'. There are a number of forces which are said to raise costs of production throughout the economy. Prices are then raised in response to preserve profit mark-ups. This cost–push process has to be contrasted with 'excess demand' explanations of inflation, in which the causes are said to be too much demand for labour (which, then, raises wages and costs) and goods (which enables firms to raise prices without fearing loss of business).

The initial impulse behind the cost–push process comes from the trade unions. The Keynesians are somewhat ambivalent in their attitude to the union movement, because it is regarded as both the cause of a self-defeating jostling between different groups for a higher share of the national cake (which they deplore) and the agent of income redistribution in favour of the lower classes (which they applaud). An insistence on the villainy of the trade unions is, however, common to all the Keynesians in some form or other. At one extreme there is Lord Balogh who is outspoken and unhesitating in his condemnation. Others are more reserved. Dr Roger Opie, in his contribution to a new book on *Keynes: Aspects of the Man and his Work* (based on the first Keynes seminar held at the University of Kent in 1972), attributes their behaviour to the economic context in which they operate. It is, he says, the experience of past high employment which has given unions the taste of power; and the combination of organized labour and oligopolized industry which has given them the opportunity to exercise it without limit.[2] Professor Joan Robinson recognizes the conflict between the public aims of the labour movement as a whole and the private, self-interested objectives of the individual union. Although the vicious inflationary spiral caused by wage-bargaining 'does no good to the workers', nevertheless 'it remains the duty of each trade union individually to look after the interests of its own members individually'.[3]

Accompanying this hostility, open or disguised, to the trade unions, is a set of beliefs about the operation of the labour market. Wages are set, not by demand and supply, but by bargaining. Workers do not move from industry to industry and from firm to firm in response to the incentives of better pay and prospects. The labour market is characterized by rigidities and imperfections, and wage-determination takes place in an environment of 'countervailing power', without respect for fairness or for social justice. ('Countervailing power' is a phrase invented by the American Keynesian, Professor Kenneth Galbraith.) The imperfections in the labour market are matched by imperfections in the production and supply of goods. Opie's reference to 'oligopolized industry' is typical. Occasionally even the retailers have to take their share of the blame. As Sir Roy Harrod puts it, the distributors are 'sometimes up to a little mischief'.

In short, 'the core' of cost–push inflation is the conflict between 'managers, trade unionists, and the non-unionized' as they 'all struggle endlessly to increase, or at least preserve, their share of the national product'. The timing and size of the demands placed on the economy do not have a primarily economic explanation. The principal influences are, instead, social and psychological; and they operate continuously. The outcome of the distributional struggle is not determined by productivity, but by power. The crucial determinant is the strike threat.

What, then, is the answer to cost–push inflation? It is direct intervention by the Government in the form of prices and incomes policies. The Keynesians are united in this, and they would appear to have convinced a majority of the academic economics profession. There are few clearer statements of support than that from Sir Roy Harrod in *Keynes: Aspects of the Man and his Work*, where he writes, 'I am myself a definite advocate of what we call an "incomes policy". I believe there must be direct interference'. A prices and incomes policy serves many functions. It is, first and foremost, a weapon to fight inflation. But it is more than that. By enabling a central authority to monitor price movements, it supersedes – or, at least, overrides – the monopoly bargaining power of large firms and the trade unions. It can thereby contribute to attempts to distribute economic rewards more fairly. It is a means of attaining social justice.[4]

What of the uses of monetary correctives? These are scorned. To quote Harrod again:

> I do not think it is any good saying that banks can stop inflation – saying, let them reduce the money supply. How can the poor banks reduce the money supply? What actually happens is that wage-earners get a demand granted which must raise costs.[5]

If monetary methods were adopted they would cause unemployment, and this is thought to be unacceptable. It would be the negation of Keynesianism if unemployment were the best method of fighting rising prices.

There is no doubt that the Keynesian position is internally consistent. If one believes that 'greed' and 'envy' are the causes of inflation, one is likely to be sceptical of the use of such indirect methods of control as changes in taxation and interest rates. It is much easier to legislate against greed and envy directly, by laying down statutory limitations on their effects. It is also consistent with a particular perception of reality. If monopoly power is pervasive, if markets are stunted by imperfections and rigidities, it is futile to apply those remedies which work on the assumption that the economic world is competitive and responsive to supply-and-demand pressures. But the Keynesian position is not, as we shall see, consistent with that of Keynes. It has no foundation in his written work and is not, indeed, compatible with fundamental aspects of his economic philosophy.

But surely, it might be said, the Keynesians must be basing their case on some element of Keynes's thinking. Is there any kinship between their arguments and his?

In fact, there is an assumption common to their way of thinking and the most important part of Keynes's work. It is a technical assumption, slipped into the interstices of the theoretical structure; and, for that reason, one whose significance is easily overlooked. It is the assumption throughout *The General Theory of Employment, Interest and Money* (1936) that the analysis can be conducted in terms of 'wage-units'.

Keynes was not concerned in his investigation of unemployment with the relationship between capital inputs and output. The vital relationships were those between employment, output and demand. The function of the wage-unit assumption was that it enabled his analysis to focus on these relationships 'provided we assume that a given volume of effective demand has a particular distribution of this demand between different products uniquely associated with it'. The wage-unit was defined as the sum of money paid to each 'labour-unit' or, in effect, each worker.[6] This was a very useful assumption. Keynes could proceed to the determination of output and employment without needing a prior theory of the determination of the money wage and without troubling himself too much over microeconomic details. It might seem to follow that Keynes considered money wages to be given exogenously, perhaps as a result of bargaining.

The subtle effect of the wage-unit assumption on later thinking is exposed in an important new book on *The Crisis in Keynesian Economics* by Sir John Hicks. The validity of analysis conducted in wage-units turns on what Sir John calls 'the wage theorem', that 'when there is a general (proportional) rise in money wages, the normal effect is that all prices rise in the same proportion'.[7] Given the wage theorem it is immaterial what the particular money wage is. The relationships between liquidity preference, the investment function, and the rest, which are the hub of Keynes's economics, are unaffected. Consequently, it is a convenient and innocuous simplification to assume a fixed money wage. Consequently, the relationship between aggregate demand and the money wage can be neglected.

This chain of thought – or, rather, this compound of faulty thought-habits and pseudo-empirical hunches – is the source of all the trouble. Keynes made the wage-unit assumption because it facilitated his theoretical task. He could grapple more quickly with the issues of demand and employment, once the awkward (but, to him, supererogatory) problem of money wage determination was put to one side. But this does not mean that he thought money wages were determined exogenously in the real world. Unfortunately, the Keynesians have come to think just that. It is almost comical to picture Sir Roy Harrod indulging in an elaborate exegetical hunt to find some justification for his conjecture:

> I have searched through his writings very carefully, not long ago –for the purpose of discovering anything he had to say about what we call 'cost–push inflation'. I could find only one short passage in Keynes, just a couple of sentences, where he said, 'Of course the wage-earners might demand more than corresponding to their rise in productivity, might demand more and get more.' You can find those words if you search; I ought to give you chapter and verse, but I have not put down the page reference; they are there all right.[8]

The fact is that Keynes wrote almost nothing about 'what we call "cost–push inflation"'. The 'one short passage' may or may not be a figment of Sir Roy's imagination. The many thousands of words written by Keynes on inflation as an excess demand phenomenon are palpable and, to anyone who 'searches through his writings very carefully', rather obtrusive.

There is, however, a certain agreement between the Keynesians' and Keynes's views on social fairness. His writings at times resemble a roll-call of the class structure of a late industrial society, with references to profiteers, rentiers and unions scattered throughout the pages. The passages on income distribution in *How to Pay for the War* describe the upward swirl of the wage–price spiral particularly well. Here, indeed, it might be said, is the endless social struggle for a higher proportion of the national income.[9] But it is difficult to infer Keynes's attitude to the labour movement from his writings. He was certainly alerted to its potential impact on the organization of the markets in factor services. In one of his public speeches he described trade unionists as, 'once the oppressed, now the tyrants, whose selfish and sectional pretensions need to be bravely opposed'.[10] But the harshness of the observation is unusual. It may be an isolated piece of bravura intended more for public relations purposes than as an expression in inner conviction. In *The General Theory* (and elsewhere) the unions are a fact of life; they are not the subject of a favourable or adverse judgement.

But, if there are some reasons for attributing Keynesian views to Keynes's intellectual legacy, there are many more reasons for denying a strong connection between the two.

Before moving on to an examination of Keynes's theory of inflation, it is essential to challenge a widespread misapprehension: that Keynes knew nothing about, and was uninterested in, the price mechanism or, more generally, in what we would now call microeconomics. This is simply untrue.[11] His awareness of the virtues (within limits) of the price mechanism saved him from the common assumption among the Keynesians that official interference to restrain rises in the absolute price level – or, more explicitly, prices and incomes policies – has no damaging repercussions on the configuration of relative prices. Equally, he was sceptical of the effectiveness of price controls, a scepticism formed by knowledge of conditions in the inflation-ridden European economies of the early 1920s. In *The Economic Consequences of the Peace* (1919), he wrote:

> The preservation of a spurious value of the currency, by the force of law expressed in the regulation of prices, contains in itself, however, the seeds of final economic decay, and soon dries up the sources of ultimate supply.

A page later he added, 'The effect on foreign trade of price-regulation and profiteer-hunting as cures for inflation is even worse'.[12] An even more contemporary ring attaches to his derision of the 'bread subsidies' which were common at the time.

Similarly, he did not consider wage control to be feasible. There are recurrent passages in Keynes – particularly when Britain returned to the gold standard (in 1925) – where the need to bring down the level of wages is stressed (if the exchange rate had to be unnecessarily raised). But it was precisely the impracticality of efforts to depress the general wage level which was the problem (and, therefore, made adjustments of the exchange rate expedient). In 1931, just before Britain left the gold standard, he wrote that the reduction of all money wages in the economy

> if it were to be adequate would involve so drastic a reduction of wages and such appallingly difficult, probably insoluble, problems, both of social justice and practical method, that it would be crazy not to try [the alternative of import restrictions].[13]

Of course, the Keynesians could argue that today the community has become habituated to directives from the centre. The improvement in communications has made it that much easier to administer and to police a prices and incomes policy. It might be contended that in these altered circumstances Keynes would revise his views, acknowledging some merits in legally-imposed limitations on wage and price rises.

It is impossible to argue with this. It might well be true. But surely no one can give a definitive answer one way or the other. What is clear is that there is nothing in Keynes's writings which explicitly envisages and endorses a prices and incomes policy, and there is much in their mood and tenor which is contemptuous of its makeshift predecessors in the 1920s.

What, then, of Keynes's views of the inflationary process?

The first point is that Keynes regarded inflation as an excess demand phenomenon. There is very little, if anything, in his writings to suggest that he regarded it as something else. Perhaps the most lucid and consecutive discussion to be found in his work is in Chapter 21 of *The General Theory* on 'The theory of prices' (and, more especially, between pages 295 and 303). Paradoxically, however, it is rather hard to use this section for our purposes. The difficulty is that Keynes thought the proposition that inflation was due to excess demand so self-evident that he did not bother to argue it. The discussion consists of permutations of assumptions, all of which derive from a theoretical position of extreme orthodoxy. No alternative to excess-demand inflation is contemplated, let alone explored.

The form of the discussion is to put forward, as a pivot for further argument, the principle that:

> So long as there is unemployment, employment will change in the same proportion as the quantity of money; and when there is full employment, prices will change in the same proportion as the quantity of money.[14]

The validity of this principle is shown to depend on five assumptions. Only one of the five assumptions is concerned with the institutional context of wage-bargaining. It is the tendency for the wage-unit – or, in effect, money wages – to rise before full employment has been reached. Let me quote the relevant passage in full:

> In actual experience the wage-unit does not change continuously in terms of money in response to every small change in effective demand; but discontinuously. These points of discontinuity are determined by the psychology of the workers and by the policies of employers and trade unions.[15]

In other words, the significance of the union movement is recognized. But the exercise of bargaining power depends on prior changes in 'effective demand'.

This was plainly thought to be the normal run of events. These 'discontinuities' represented 'semi-inflations' which 'have, moreover, a good deal of historical importance'. It is not surprising that Keynes saw unions as susceptible to the same economic pressures as firms or individuals. In his lifetime, the membership of the union movement was substantially reduced on two distinct occasions – between 1921 and 1924, and between 1929 and 1932. In both instances the cause was the downturn in demand. To summarize, Keynes believed there to be an interplay between institutions and economic forces; but he did not believe, as do the Keynesians, that institutions dictate to or overwhelm these forces.[16]

Whereas Keynes hardly ever attributed trade unions a causal role in inflation, there are an abundance of passages in which inflation is 'a monetary phenomenon'. (The claim that inflation is 'a monetary phenomenon' is associated with the famous American economist, Professor Milton Friedman.) Indeed, on one occasion Keynes gave a definition of inflation which was stated in terms of the money supply. He did not dither between two competing modern definitions – of 'rising prices' and 'aggregate demand in excess of aggregate supply'. Instead:

> From 1914 to 1920 all countries experienced an expansion in the supply of money relative to the supply of things to purchase, that is to say Inflation.

Moreover, the emphasis on money in the inflations of the First World War is consonant with the dominant themes of Keynes's depression economics. In the more simplistic explanations of Keynes's theory there is often undue concentration on the need for public works to raise spending. But this neglects the cause of inadequate private investment, which was too much liquidity preference or, roughly speaking, the behaviour of the demand for money.[17] When savings take the form of liquid holdings (such as bank deposits) rather than illiquid holdings (like plant and machinery), the demand for goods declines and there is unemployment. The traditional answer was to lower the rate of return on liquid holdings, until savers shifted back into illiquid. But Keynes saw that, in certain extreme circumstances, there might be psychological and institutional barriers to a sufficient downward reduction in the rate of interest. It followed from this that monetary policy, intended to engineer changes in interest rates, could not by itself cause a recovery of demand. Hence, there was a need, in his words, for 'a somewhat comprehensive socialization of investment'. If investment were in state hands, it could be undertaken with larger ambitions than mere profit-maximization. In particular, it could be stepped up in order to promote higher employment.

However, if the impotence of monetary policy in a depression is one of the principal conclusions of Keynes's economics, there is no foundation for the widespread Keynesian attitude that 'money does not matter'. Keynes's writings are replete with references to the banking system and financial assets. It would be remarkable if he thought them irrelevant to problems of economic policy in normal circumstances. (The 1930s, of course, were not normal circumstances. But it should be remembered that three out of the eight historical illustrations in Chapter 30 of *A Treatise on Money* were analyses of inflations. Keynes did think about the longer time span.[18])

In Keynes, the monetary variable under discussion was usually the rate of interest (the price of money) rather than the money supply (its quantity). This has subsequently been a fertile and persistent source of disagreement between the Keynesians and others. The Keynesians say that no support is to be found in *The General Theory* or elsewhere for the mechanistic rules advocated by, for example, Milton Friedman of the Chicago school, in which the monetary variable emphasized is the quantity of money. It is true that nowhere in Keynes is there a forthright recommendation for stable growth of a monetary aggregate. But there are sections of *A Tract on Monetary Reform* which come remarkably close to this standard monetarist position.[19]

Of course, Keynes was in no position to talk with confidence about fluctuations in money supply growth, because he lived in an age before full statistics were available. The rate of interest, on the other hand, was something known and observable. There are some intriguing passages in *A Treatise on Money* (1930) where Keynes plainly was searching for a measure of the money supply and trying to identify a relationship with nominal national income. The two most interesting cases were in Britain in the decade after the First World War and in the USA between 1925 and 1930.[20] There were mismatches between changes in the money supply and nominal national income changes, which, interestingly, he attributed to 'lags' between 'profit' and 'income inflations'. The discussion in these pages is a fascinating attempt to understand the transmission mechanism of monetary policy.

Keynes's tendency to focus on the price of money, rather than its quantity, may also have reflected his involvement in insurance and fund management. He was active in City finance and speculation throughout the 1920s and 1930s, and looked at monetary policy as City men do. Bankers, who have to arrange loans from day to day, think of the demand for credit as fickle and volatile, while economists, who look at broad monetary aggregates and long-run time series, regard it as continuous and stable. Bankers see interest rates, which give signals of credit availability, as the determining variable, while economists tend to regard the money supply as all-important and are inclined to downplay the significance of transient price incentives. Keynes mostly thought in interest rate terms. But this does not mean that, in the general run of events, he distrusted the effectiveness of monetary policy as a method of changing demand, output and employment. A clear statement of his position is again to be found in *A Treatise on Money*. The authorities have, he said, no control over individual prices (like those of cars or meat) in the economic system. Nor do they have *direct* control over the money supply because the central bank must act as lender of last resort. But they do determine one price, 'the rate of discount', or the rate of interest; and it is this which gives them leverage on the system as a whole.[21]

One final point, which is perhaps decisive in refuting the Keynesians, needs to be made: it is that when Britain was confronted with nasty outbreaks of inflation during his lifetime, Keynes supported policies of a traditional, demand-restrictive nature. It has been too readily assumed that the years from 1914 to 1945 were of prolonged and unremitting depression, characterized by falling or stable prices, and that Keynes was therefore never called upon to offer advice on the control of inflation. This is quite wrong. In early 1920, Britain was in the midst of an inflationary boom of proportions which have never been paralleled before or since. (Conditions in 1973 and 1974 were, in some respects, rather similar.) In both 1918 and 1919 money wages soared by nearly 30 per cent a year, and even by February 1920 there seemed no sign of an early release from the grip of the price explosion which had inevitably followed.

The Chancellor of the Exchequer, Austen Chamberlain, asked for an interview with Keynes to obtain his opinion on the right course of action. Chamberlain later summarized his impression of the interview as:

> K. would go for a financial crisis (doesn't believe it would lead to unemployment). Would go to whatever rate is necessary – perhaps 10 per cent – and would keep it at that for three years.[22]

Shortly afterwards Keynes prepared a 15-point memorandum in which he amplified his advice. Perhaps its most startling feature is the similarity between the economic issues of early 1920 and those of late 1974, and only a little less startling is Keynes's set of recommendations to deal with the problems. He wanted stiff and harsh deflation.

Is this document an aberration? Would Keynes have retracted it with the benefit of hindsight and of the breakthroughs in economic thought he pioneered in the 1930s? In 1942 he was shown his 1920 memorandum. He was not in the least repentant. Far from thinking his position too iconoclastic, he acknowledged that other economists at the time had thought exactly the same and that they had been equally right. To quote:

> As usual the economists were found to be unanimous and the common charge to the contrary without foundation! I feel myself that I should give today exactly the same advice that I gave then, namely a swift and sharp dose of dear money, sufficient to break the market, and quick enough to prevent at least some of the disastrous consequences that would then ensue. In fact, the remedies of the economists were taken, but too timidly.[23]

There is no need to go any further. The argument could be reinforced by an analysis of Keynes's views of war finance, but there is already enough evidence to validate the main contentions of this article.

There is nothing in Keynes's writings, philosophy, or work which coincides with the present-day Keynesians' viewpoints on inflation policy. They favour direct government interference to keep prices down. Keynes scorned price regulation as ineffective and harmful. They consider inflation to be a cost–push phenomenon. He never envisaged it as anything but a phenomenon of excess demand. They dismiss monetary policy. He thought the one sure answer to inflationary excesses was 'a swift and severe dose of dear money'.

Are we really all 'Keynesians' now?

Notes

1. The best-known Keynesians in this country are Sir Roy Harrod, Lord Kahn and Joan Robinson. Lord Kahn and Mrs Robinson have stayed at Cambridge, but Sir Roy Harrod has taught at Oxford for most of his academic career. Although Cambridge is the centre of Keynesianism, many economists in universities throughout England would profess themselves as Keynesians; and it is, perhaps, slightly misleading to locate it too precisely in geographical terms.

   Throughout the article, Keynesianism will mean the body of beliefs of this group of economists, and Keynesians will be these economists. A distinction will, therefore, be drawn between Keynesian economics and Keynes's economics. A similar distinction is to be found in A. Leijonhufvud's, *On Keynesian Economics and the Economics of Keynes* (1968), although Leijonhufvud is concerned with the whole body of Keynes's economics whereas I am only interested in his work on inflation.
2. Roger Opie, 'The political consequences of Lord Keynes', in D. E. Moggridge (ed.), *Keynes: Aspects of the Man and his Work* (Macmillan Press, 1974), p. 87.
3. Joan Robinson, *Economic Philosophy* (1962), p. 131.
4. Sir Roy Harrod, 'Keynes's Theory and its applications', in D. E. Moggridge (ed.), Keynes, pp. 9–10; and Opie, p. 86. There have been suggestions that there is such a thing as a 'just price' and that 'social considerations' should enter into price determination. See A. Jones, *The New Inflation* (1973), particularly Chapters 5 and 6.
5. Sir Roy Harrod in D. E. Moggridge (ed.), *Keynes*, p. 9.
6. J. M. Keynes, *The General Theory of Employment, Interest and Money* (1936), pp. 41–43. See, particularly, the footnote on pp. 42–43.
7. Sir John Hicks, *The Crisis in Keynesian Economics* (Blackwell, 1974), pp. 59–60.
8. Sir Roy Harrod in Moggridge (ed.), *Keynes*, p. 9. Other examples: 'It would be most inappropriate for me to stand up here and tell you what Keynes would have thought. Goodness knows he would have thought of something much cleverer than I can think of' (pp. 8–9); and: 'I do not think we can tackle it without direct interference. They do seem to be doing this rather more effectively in America now than here having tribunals, boards, call them what you will, responsible for fixing maximum price increases. I am sure we have got to come to that, and, as our Chairman very kindly hinted, I had a letter in *The Times* on this very subject yesterday.'
9. J. M. Keynes, *How to Pay for the War* (1940), of which pp. 61–70 are reprinted in R. J. Ball and Peter Doyle, *Inflation* (1969), pp. 21–27.
10. J. M. Keynes, 'Liberalism and Labour' (1926), reprinted in *Essays in Persuasion* (1931), p. 341.
11. There is an extremely tart and amusing footnote on pp. 70–71 of D. E. Moggridge (ed.), *Keynes: Aspects of the Man and his Work* on this theme, which I strongly recommend to the connoisseur. It is at Joan Robinson's expense. She had supported the notion that 'Maynard had never spent the 20 minutes necessary to understand the theory of value', sublimely unaware that as a matter of fact (as is clear from one of the notes to her publisher) he had acted as referee to her very book on the subject.
12. E. Johnson and D. E. Moggridge (eds), *The Collected Writings of John Maynard Keynes: Vol. 2, The Economic Consequences of the Peace* (London, 1971), pp. 151–2.
13. J. M. Keynes, *Essays in Persuasion* (1931), p. 284. The alternative of import restrictions is the one preferred in the context of the passage quoted, but Keynes was, of course, in favour of a devaluation if it was politically possible.

14. Keynes, *The General Theory of Employment, Interest and Money* (1936), p. 296.
15. Keynes, *The General Theory*, pp. 301–302.
16. The frailty of institutions in the face of economic imperatives is one of the themes of an interesting new book: G. A. Dorfman, *Wage Politics in Britain*, Charles Knight (1974). See, particularly, Chapter 2 on the inter-War period.
17. Keynes, *Essays in Persuasion* (1931), p. 81. There is a fascinating discussion of the notion of liquidity preference, and its connection with investment flexibility, in the second part of Sir John Hicks, *The Crisis in Keynesian Economics*.
18. E. Johnson and D. E. Moggridge (eds), *The Collected Writings of John Maynard Keynes: Vol. 6, A Treatise on Money: The Applied Theory of Money* (1971), pp. 132–186.
19. See below pp. 240–42.
20. *Treatise*, pp.155–61 and pp.170–75.
21. Keynes himself put 'direct' in italics (p. 189) of the *Treatise*, presumably because he thought that a rise in the price of money would cause people to economize on its use and, therefore, the authorities could indirectly control the money supply. The belief that a central bank should not hold down the money supply directly, because it has the lender-of-last-resort function, is a very typical banker's attitude. Incidentally, it is one reason why Friedmanite economists and central bankers often do not see eye to eye.
22. Susan Howson, '"A dear money man"?: Keynes on monetary policy, 1920', in *The Economic Journal* (June 1973), p. 458.
23. Susan Howson, *The Economic Journal*, p. 461.

Keynes, British Monetarism and American Monetarism

From a paper 'British and American monetarism compared' in R. Hill (ed.) Keynes, Money and Monetarism *(1989) London and Basingstoke: Macmillan.*

This paper has several echoes to other pieces in the book, particularly in its discussion of the tension between external and domestic objectives in monetary policy. This tension was one of the most important and consistent themes in Keynes's writings, and it is easy to show that Keynes wanted British monetary policy to be based on domestic considerations, not external. This paper, which was given at a one-day conference on Keynes at the University of Kent in 1987, argues that Keynes's recommendation of 'a managed currency' in his 1923 A Tract on Monetary Reform *is similar to the targeted money growth which was the centrepiece of the Thatcher Government's Medium-Term Financial Strategy. (The argument is also made, in a somewhat different context, in the following paper based on my Cardiff inaugural lecture in November 1989.) The Kent paper also discusses Keynes's remarks, at various points in his work, on the mechanics of monetary control, a subject which caused antagonism between British and American monetarists in the early 1980s.*

The spread of monetarism in the 1970s did not occur by a simple process of intellectual conquest. In most countries monetarist ideas could not be incorporated in policy formation until they had adapted to local economic conditions and recognized existing traditions of monetary management. Although the framework of financial control assumed some monetarist characteristics in virtually all the industrial nations, each nation still retained distinctive institutional arrangements and policy approaches. The UK posed a particular problem. With its long history of monetary debate and practice, and with its unusually well-established institutional structures, it did not readily assimilate Chicago School doctrines. Nevertheless, in the late 1970s and early 1980s the media, leading politicians and the public at large believed that British macroeconomic policy was becoming progressively more monetarist. Perhaps the apex of monetarist influence on policy came in the Budget of 1980 with the announcement of the Medium-Term Financial Strategy, in which targets for both monetary growth and the budget deficit were stated for four years into the future. In a statement to regional city editors on 9 June 1980, Nigel Lawson, Financial Secretary to the Treasury (later to be Chancellor of the Exchequer), said that the 'Medium-Term Financial Strategy is essentially a monetary – or, if you like, monetarist – strategy'.[1]

The purpose of this paper is to compare the 'monetarism' referred to by Nigel Lawson with the 'monetarism' which is conventionally associated with the Chicago School. The monetarism which once dominated policy formation in the UK is called British monetarism, and the monetarism of the Chicago School, American monetarism. Of course, these simple labels are to a degree misleading. So many ideas have been in play, and they have undergone such constant evolution, that there is an inevitable arbitrariness in talking of this monetarism, that monetarism or the other monetarism. Despite the difficulties, a short description of British monetarism is ventured in the next section. No precise definition is given of American monetarism, but Friedman's work and Mayer's book on the structure of monetarism are taken as broadly representative.[2] In the following four sections contrasts are drawn between British monetarism and American monetarism. The tensions between them were reflected in a number of perplexities which are critical to understanding the decline and fall of monetarism in UK policy formation in the mid-1980s. The final section therefore discusses, among other things, the corrosive impact of certain distinctively Chicagoan beliefs on the staying-power of British monetarism in the policy debate.

It would be wrong to give the impression that there has been a bitter transatlantic intellectual duel. The recent divergence between British and American monetarism certainly has not reflected a controversy as intense or long-standing as that between monetarism and Keynesianism. However, there are points of contact between the two debates. Perhaps it is not surprising, in view of the range of his work, that Keynes himself touched on several of the topics which have subsequently been disputed between American and British monetarists. As we shall see, the relationship between his views and recent Anglo-American monetary disagreements turn out to be complex and ambivalent.

The opening months of 1980, coinciding with the introduction of the Medium-Term Financial Strategy, have already been mentioned as a period of particular confidence in the virtues of monetary policy. Two official documents prepared at the time may be regarded as defining statements of British monetarism. The first is the March 1980 Green Paper on *Monetary Control*, which was the joint work of the Treasury and the Bank of England; the second is the *Memorandum on Monetary Policy* prepared by the Treasury for the Treasury and Civil Service Committee in June 1980.[3]

The focus of both documents was a target for the growth of broad money, measured by sterling M3. Sterling M3 consisted of notes and coin and nearly all deposit liabilities of the banking system. (Certificates of deposit were included, but both deposits and CDs with an original term to maturity of over two years were excluded. Sterling M3 was renamed M3 in May 1987.) Sterling M3 was not monitored for its own sake, but as an intermediate target thought to have a definite – if rather elusive – relationship with the ultimate target of inflation. The Government's faith in this relationship was expressed strongly in the Treasury's *Memorandum on Monetary Policy.* While conceding that the mechanisms linking money and prices change over time and space, the *Memorandum* insisted that 'the proposition that prices must ultimately respond to monetary control holds whatever the adjustment process in the shorter term may be'.[4] An accompanying note on 'The stability of the income velocity of circulation of money supply' stated that, although velocity had fluctuated in the previous 17 years, 'at times quite sharply', there appeared to be 'a clear tendency for the series to return to the underlying trend'.[5]

If the monetary targets were to be achieved, it was essential to understand what caused monetary expansion. The favoured account of the money supply process gave pride of place to bank credit. With the deposit liabilities of the banking system representing the greater part of broad money, it was logical to attempt to limit the growth of bank assets. Since the growth of bank assets depended on the extension of new credit to the public, private and overseas sectors, monetary control was guided by an analysis of the so-called 'credit counterparts'. More specifically, the authorities used a credit counterparts identity which set out the relationship between, on the one hand, the public sector borrowing requirement, sales of public sector debt to non-banks, bank lending to the private sector and a variety of external and other influences; and, on the other hand, the growth of broad money.[6]

The chosen approach to managing monetary growth was therefore to operate on the credit counterparts. Bank credit to the public sector could be influenced by varying the PSBR and the amount of public debt sold to non-banks; bank credit to the private sector was thought to be responsive to changes in interest rates; and bank credit to the overseas sector was related to intervention tactics on the foreign exchanges.[7] In this spirit, the Green Paper on *Monetary Control* began with the observation that: 'There are a number of policy instruments available to the authorities in influencing monetary conditions. Of these the main ones are fiscal policy, debt management, administered changes in short-term interest rates, direct controls on the financial system and operations in the foreign exchange markets'.[8]

Officials at the Treasury and the Bank of England had few illusions about the precision of monetary management by these means. Indeed, there is an uneasy slide from the use of the ambitious words 'control' in the title of the Green Paper to the more modest notion of 'influence' in the key opening paragraph. Nevertheless, the authorities were confident that, with their 'basic weapons', they could 'achieve the first requisite of control of the money supply – control, say, over a year or more'.[9]

Restraint over the budget deficit was seen as integral to monetary control over such annual periods. At Budget time a careful assessment was made of the consistency of the PSBR estimate with the broad money target, and the tendency of policy was to subordinate fiscal decision to the monetary targets. The humbling of fiscal policy was regarded as almost revolutionary, since it appeared to end the Keynesian demand-management role traditionally assigned to the Government in post-war British political economy. The intention was not to vary the PSBR to counter cyclical ups and downs in the economy, but to ensure – in the words of the Treasury *Memorandum* – that 'the trend path' of the PSBR be 'downwards'.[10]

If the authorities were sceptical about their ability to target broad money over short-run periods of a few months, the Government was reluctant to make exact predictions about how long it would take for inflation to respond to monetary restraint. The emphasis was very much on the medium-term nature of the commitment to monetary targets. It was readily conceded that a check to broad money this year would be followed by slower inflation not in the immediate future, but in two, three or perhaps even four years' time. This was, of course, consistent with the belief that the relationship between broad money and inflation was medium-term in character.

One consideration thought particularly likely to confuse the money/inflation link in the UK was the influence of a powerful trade union movement on wages and prices. This influence was sometimes regarded as having autonomy from strictly economic variables, such as the state of demand and the level of unemployment. The size of the public sector, and its insensitivity to monetary conditions, was a special problem.[11]

To ask what Keynes would have thought about British monetarism, in its 1980 version, may seem an ahistorical impertinence. However, it is not far-fetched to see similarities between the system of monetary management envisaged by the Thatcher Government in its early years and the idea of a managed currency advocated by Keynes throughout his life. Indeed, in one particularly interesting respect they coincided. The proposal for a managed currency was first made in *A Tract on Monetary Reform* (published in 1923), which was intended as a reasoned polemic against the gold standard. It contrasted the gold standard ('a barbarous relic') focusing on the stability of foreign exchange, and a managed currency ('a more scientific standard') with its goal of 'stability in an index number of prices'.[12] A preference for domestic price stability over a fixed exchange rate was also embodied in the Medium-Term Financial Strategy, as originally formulated. In the 1981 Mais lecture Sir Geoffrey Howe, the Chancellor of the Exchequer, remarked that, if monetary targets had been adopted, 'you cannot have it both ways and also hold the exchange rate at a particular level. If any inconsistency emerges, the monetary targets have to come first'.[13] In accordance with this prescription exchange intervention was minimal for several years in the early 1980s.

In summary, British monetarism could be said to have four distinctive features: (1) the selection of broad money as the appropriate intermediate target, and a consequent emphasis on the control of bank credit as the central task of monetary management; (2) as part of the overall control of credit, a belief that fiscal policy should be made consistent with monetary policy and lose the demand-management functions attributed to it in the 1960s and early 1970s; (3) an admission that the link between money and inflation was medium-term in nature and difficult to predict, partly because of the strength of British trade unionism; and (4) the avoidance of any specific exchange rate objective, for reasons which Keynes would probably have understood and approved.

The first area of disagreement between British and American monetarism lies in the emphasis placed on broad and narrow money, and in related questions about the implementation of monetary control. As we have explained, in Britain in the early 1980s broad money was the focus of policy-makers' attention. Although Friedman himself is agnostic about the issue and believes that all measures of money convey a valuable message, there is no doubt that the majority of American monetarists favour the monetary base or a narrow money aggregate as the best policy indicator. According to Mayer, the monetary base is chosen for two reasons. One is that the American monetarist's 'analysis of the money supply process tells him that this is the variable which best reflects monetary policy actions'; the other is that 'he believes the monetary base to be the best indicator of future changes in the money stock'.[14] Both aspects of Mayer's statement are important and need to be discussed, but to understand them a sketch of the American monetarists' view of the money supply process is required.

American monetarists, like their British counterparts, normally include bank deposits in their definition of the money supply.[15] Since banks have to be able to repay deposits with cash, they are obliged to hold a fraction of their assets in the form of cash or balances with the central bank. Empirical investigation is said to demonstrate that the ratio between cash and deposits is reasonably stable over the long run, while the quantity of cash is a liability of the central bank and fully under the monetary authorities' control. It follows that changes in the quantity of cash, reflecting central bank operations, determine the level of bank deposits and, hence, of the money supply. Cash (that is, notes, coin and balances with the central bank) is also known as 'high-powered money', the 'monetary base' or the 'reserve base'. Economists who believe in this account of the money supply process tend also to favour deliberate variations in the quantity of cash as the main instrument of monetary policy. This system, known as monetary base control, has been widely advocated by American monetarists.

The first part of Mayer's statement is therefore readily explained. Changes in the monetary base are taken, by American monetarists, as the clearest guide to what the central bank has been doing, and so to the intended thrust of monetary policy. It is quite clear – from the previous section – that the approach of British monetarists is quite different. With bank deposits viewed as the counterpart to bank credit, British monetarists concentrate their attention on variables believed to be relevant to the behaviour of bank credit. By far the most important of these is the short-term rate of interest, set by Bank of England operations in the money market. The contrast with the American monetarist position, with its concern over the quantity of reserves rather than the price at which they are made available to the banking system, is virtually total. Moreover, whereas in British monetarism the level of bank lending to the private sector is seen as critical to the monetary outlook, American monetarists are largely indifferent to it.

Some doctrinal purists might protest at this stage that a preference for the interest rate over the monetary base cannot plausibly be attributed to monetarists of any kind, not even to 'British monetarists'. They might say that, if that is the implication of our definition of British monetarism, the definition is too idiosyncratic and peculiar to be taken seriously. The answer to this objection is to recall the pattern of public debate in the early 1980s. The official policy framework prevailing at that time, and the attitudes informing it, were labelled as 'monetarist' in the media, in Parliament and in many other contexts. Furthermore, its emphasis on broad money and the credit counterparts arithmetic did logically entail that close attention be paid to interest rates. Of course, to say that interest rates mattered was not to make them a target of policy. On the contrary, the intention was that interest rates (the instrument) were to be varied to influence credit and money (the intermediate targets) in order to exert leverage over the inflation rate (the ultimate target).

American reaction to monetary control procedures in Britain has varied from technical puzzlement to frank outrage. A consequence of the British arrangements was that official sales of gilt-edged securities to non-banks often had to be stepped up in order to reduce the excessive quantity of deposits created by bank credit. In other words, long-term funding was a basic instrument of monetary policy. An official at the Federal Reserve Bank of New York remarked at a conference in May 1982 that this 'emphasis on selling intermediate and long-term securities to mop up money balances always sounds a bit strange to us'.[16] Friedman's comments to the Treasury and Civil Service Committee in 1980 were much sharper. He expressed incredulity at the opening paragraph of the Green paper on Monetary Control. In his view: 'Only a Rip Van Winkle, who had not read any of the flood of literature during the past decade and more on the money supply process, could possibly have written' the key sentence with its list of instruments for influencing monetary conditions. He judged that: 'This remarkable sentence reflects the myopia engendered by long-established practices, the difficulty we all have of adjusting our outlook to changed circumstances.' He declared strong support for direct control of the monetary base instead of the British system.[17]

The dismay that many American monetarists felt – and still do feel – about the Bank of England's monetary control procedures did not go unnoticed in the UK. Several economists advocated that Britain adopt some form of monetary base control. The most notable were Professor Brian Griffiths of the City University (later to be head of the Prime Minister's Policy Unit at 10 Downing Street), Professor Patrick Minford of Liverpool University and Professor (later Sir) Alan Walters who was appointed the Prime Minister's Economic Adviser in 1981. As all three are British and have been called monetarists, it may seem odd that in this paper 'British monetarism' is associated with broad money, credit control and funding. It perhaps needs to be repeated that British monetarism is defined here as the system of macroeconomic management established in the late 1970s and early 1980s, not a set of beliefs held by self-professed monetarist economists. In fact, as we shall see, the views of Minford and Walters became important as much because they challenged the existing policy framework as because they supported it.

What about the second part of Mayer's statement, that American monetarists follow the monetary base because it is 'the best indicator of future changes in the money stock'? It may or may not be true that the monetary base has this property in the USA; much depends on whose econometrics one chooses to trust. But it is certainly not true in the UK, where the institutional apparatus is such that the monetary base is not a reliable guide to future changes in the money stock, on any definition. Under the British arrangements the Bank of England supplies cash in the required amounts to keep banks' balances at the daily clearing just adequate for them to fulfil their obligations.[18] In consequence, the quantity of cash held by the banks adjusts to the size of their balance sheets rather than the other way round. The monetary base is determined by what is happening in the economy today; it does not determine what banks, the money stock or the economy will do in future.[19] Indeed, one of the remarkable features of the British system is that – because of the flexibility of official money market operations – the banks can keep very low ratios of cash reserves to deposit liabilities. Since cash does not pay interest, this feature is attractive to profit-seeking overseas bankers, and is one reason for the intensity of foreign competition in the British financial system.

American economists do not appear fully to understand either the method of operation or the purpose of the British practices. The same Federal Reserve official who was puzzled by the significance of funding in the UK was also 'struck by the minimal role that reserve requirements play in the monetary control process'. He wondered whether 'the amount of leverage available' was 'sufficiently large for the central bank to pursue monetary and other policy targets effectively in all seasons'.[20] But the point of the British system is that – in contrast to the situation in the USA – the quantity of cash reserves is not supposed to exert any leverage on the monetary targets.

Friedman, in his evidence to the Treasury and Civil Service Committee, proposed some reforms which he thought would tighten the link between the base and the money supply. He noted that, in 1981, banks could hold a variety of assets to meet reserve requirements in the UK and suggested that:

> It would be highly desirable to replace this multiple reserve system by one in which only a single asset – liabilities of the Bank of England in the form of notes and coin (that is, base money) – satisfies reserve requirements. This is probably the most important single change in current institutional arrangements that is required to permit more effective control of the money supply.[21]

The problem here was that Friedman had become confused between a $12^1/_2$ per cent reserve asset ratio which served an essentially prudential function and a $1^1/_2$ per cent cash ratio which was the operational fulcrum of monetary policy. Since the confusion has been shared to some degree by British economists and officials, it was perhaps excusable. But Friedman's imperceptiveness on the question reflected a wide gap between American and

British approaches to monetary management and undoubtedly symptomized a certain amount of mutual incomprehension.

The differences between central bank techniques in the UK and USA are not new, but can be dated back to the early years of the Federal Reserve system. Unlike some recent participants in the debate, Keynes was well aware of their nature and origins, and devoted many pages of his *Treatise on Money* (published in 1930) to their analysis. He drew a contrast between 'the bank-rate policy' applied in Britain and the 'open-market policy' adopted in the USA. Essentially, the bank-rate policy involved a varying bank rate in order to control 'the aggregate of the central bank's assets', whereas open-market operations of the American kind produced 'a direct effect on the reserves of the member banks, and hence on the volume of deposits and of credit generally'.[22] Although Keynes saw some merits in a bank-rate policy, it is quite clear that he preferred an open-market policy. He expressed great admiration for Governor Strong of the Federal Reserve, whom he regarded as the pioneer of scientific open-market operations, remarking that:

> open-market operations can be so handled as to be quite extraordinarily effective in managing the currency. The successful management of the dollar by the Federal Reserve i.e. from 1923 to 1928 was a triumph – for the view that currency management is feasible, in conditions which are virtually independent of the movements of gold.[23]

The sympathy here for the American approach connects with some of his later themes, since he also considered that, 'whilst the bank rate may be the most suitable weapon for use when the object of the central bank is to preserve international equilibrium, open-market sales and purchases of securities may be more effective when the object is to influence the rate of investment'.[24] This fits in neatly with Keynes's emphasis in *The General Theory* on the need to influence investment in order to mitigate fluctuations in output and employment.

However, it should be noted that in *The General Theory* Keynes says rather little about central bank techniques and almost nothing about the Federal Reserve. There is a short comment, in the 'Notes on the trade cycle' in Chapter 22, about how 'the most enlightened monetary control might find itself in difficulties, faced with a boom of the 1929 type in America, and armed with no other weapons than those possessed at the time by the Federal Reserve System'.[25] But that is all. The implication seems to be that the severity of the American slump in the early 1930s, particularly by comparison with the mildness of the contemporaneous downturn in Britain, undermined the prestige of the Federal Reserve's procedures. Nevertheless, it is reasonable to conclude that – in this area of the technicalities of monetary control – Keynes inclined more towards American monetarism than British.

In qualification, it also needs to be said that throughout this work Keynes refers repeatedly, and with evident belief in its importance, to 'credit', while in virtually all his discussions about monetary practice he is concerned about the behaviour of bank deposits and so of broad money. The focus on broad money is particularly obvious in his distinctions between income, business and savings deposits, and between industrial and financial 'circulations', in the first volume of the *Treatise on Money.*[26]

Basic to the Medium-Term Financial Strategy, and indeed to the monetarist enterprise in Britain more generally, was control over the fiscal position. Recognition of the importance of restricting public sector borrowing can be dated back to the mid-1970s, when extremely large budget deficits were accompanied by difficulties in controlling the money supply and by fears that the substantial demands made by the public sector on the savings pool were crowding out private sector investment. Targets for the PSBR were included in the International Monetary Fund's Letter of Intent in December 1976, which set out conditions for its loan to the UK. In his speech to the Lord Mayor's dinner on 19 October 1978, Denis Healey – as Chancellor of the Exchequer in the then Labour Government – said that the Government was 'determined to control the growth of public expenditure so that its fiscal policy is consistent with its monetary stance'.[27] The stipulation of precise numbers for the PSBR in the Medium-Term Financial Strategy from 1980 onwards should not be seen as a surprise innovation, but as the logical culmination to events over several years.

The thinking behind this approach was implicit in the credit counterparts arithmetic. If bank lending to the private sector, external influences on money growth and public sector debt sales to non-banks were all given, there was – and, of course, still is – a direct accounting link between the PSBR and the growth of the money supply. For every £100 million of extra PSBR there was an extra £100 million of M3. If an excessive PSBR threatened the monetary target, high interest rates would be needed to discourage lending to the private sector or encourage more buying of public sector debt. According to Peter Middleton (later to become Sir Peter and also Permanent Secretary to the Treasury), in a seminar paper given in the 1977/78 academic year, 'as a general proposition, a big fiscal deficit will tend to lead to a rapid growth of money supply and/or to higher interest rates... It follows that it is essential to examine fiscal and monetary policy simultaneously and co-ordinate them as far as practicable.'[28]

This relationship between flows of public sector borrowing and the growth of the money supply can be easily reformulated in terms of the stocks of public sector debt, bank lending to the private sector and money.[29] The main conclusion is that, if the ratios of public debt and bank lending to gross domestic product are constant, a higher ratio of the PSBR to GDP is associated with a higher growth rate of broad money and so with more inflation. In practice, ratios of public sector debt and bank lending to GDP fluctuate substantially over time. But it is plausible that a government committed to extensive privatization of productive assets would favour, over the medium term, a rising ratio of private sector bank borrowing to GDP, rather than a high ratio of public debt to GDP. In the early 1980s, that implied a need for the PSBR/GDP ratio to be maintained at a low level for several years.

What about the American monetarists' attitude towards fiscal policy? In the late 1960s there was a fierce debate in the USA – known as the 'Battle of the Radio Stations' after the initials of the main researchers involved (AM, FM, for Ando–Modigliani, Friedman–Meiselman) – about the relative effectiveness of fiscal and monetary policy.[30] Arguably, it was the starting-point of monetarism. Not only did it prompt Professor Karl Brunner to coin the term 'monetarist', but also it revolved around the idea – later to become a commonplace in the British policy debate – that discretionary changes in fiscal policy were misguided as a means of influencing the economy.

In view of this background, American monetarists might reasonably have been expected to welcome the demotion of fiscal policy in the Medium-Term Financial Strategy. Curiously, that has not been the reaction. Friedman, in his evidence to the Treasury and Civil Service Committee, said that the attention paid to the PSBR targets was 'unwise', partly 'because there is no necessary relation between the size of the PSBR and monetary growth'.[31] Friedman's remarks were picked up by British critics of monetarism, notably by the Oxford economist, Christopher Allsopp, who was emboldened to claim that: 'The standard monetarist line is that it is only the money supply that matters for inflation control, and that fiscal policy has little direct effect on the economy, or on the ease or difficulty of controlling money.'[32] Although Friedman may be extreme in denigrating the place of PSBR control in British monetarism, there is no doubt that most American monetarists do not integrate fiscal policy into their thinking and policy advice. Thus a prescription for fiscal policy does not figure in Mayer's list of key monetarist propositions. The explanation is perhaps to be sought in the separation of powers between the Federal Reserve (responsible for monetary policy) and the Treasury (which, along with other agencies, controls the Budget) in the American system. For these institutional reasons it makes less sense to attempt to co-ordinate fiscal and monetary policy in the American macroeconomic context than in the British.

There was never any pretence in British monetarism that x per cent growth of broad money over the next year would be followed by an exactly predictable y per cent growth of money GDP at an exactly known date in the future.

It was readily admitted that the link between money and inflation was imprecise, while there were no illusions that the impact of monetary restraint on inflation would assert itself – or even be identifiable – over periods of time as short as three to six months. Instead, the connection between broad money and the price level was regarded as rather difficult to forecast and essentially medium-term in nature. When British monetarism was at its most influential, policy-makers probably thought in terms of an x per cent rate of broad money growth leading to an inflation rate of x plus or minus 2 or 3 per cent at some date two to four years away. That may sound too flimsy as a basis for decision-taking; but it is vital to remember the context in which British monetarism first made headway in the public debate. In the mid-1970s, when the inflation rate was frequently at about 20 per cent or more, politicians were less fussy about a 2 or 3 per cent error in forecasting it than they are now. Moreover, there was little respect for computer-based macroeconomic forecasting methods which promised great exactitude. Such methods had totally failed to predict the scale of the inflationary retribution for the monetary policy mistakes of the Heath–Barber period.

American monetarists also refuse to make bold claims about the precision of monetary impacts on the economy. Friedman coined an often-repeated phrase when he said that the relationship between money and inflation was marked by 'long and variable lags'. In his evidence to the Treasury and Civil Service Committee, he cautions that 'failure to allow for lags in reaction is a major source of misunderstanding'. After suggesting that 'for the US, the UK and Japan, the lag between a change in monetary growth and output is roughly six to nine months, between the change in monetary growth and inflation, roughly two years', he immediately inserted the qualification that, 'of course, the effects are spread out, not concentrated at the indicated point of time'.[33] Arguably, this reluctance to be specific reflects an aspect of monetarism highlighted by Mayer, a preference for small reduced-form models over large-scale structural models of the economy. According to Mayer, monetarists believe that the money supply affects the economy in so many ways that 'even a large structural model is not likely to pick them all up'.[34]

The differences between American and British monetarists in this area may not, therefore, seem to be all that wide. Keynes also recognized, although with reservations, the medium- and long-term validity of the money/inflation link. In Chapter 21 of *The General Theory*, he said that the question of the relationship between money and prices outside the short period is 'for historical generalizations rather than for pure theory'. He continued by observing that, if liquidity preference (that is, the demand for money) tends to be uniform over the long run, 'there may well be some sort of rough relationship between the national income and the quantity of money required to satisfy liquidity preference, taken as a mean over periods of pessimism and optimism together'.[35] This is an interesting quotation because it shows that Keynes never dismissed the relevance of money to the long-run behaviour of prices, not even after the refinement of his theoretical ideas on the short-run determination of output in *The General Theory*. However, the section which contains the quotation also makes several references to wages and productivity as fundamental influences on prices. Keynes may have been reluctant to give a wholehearted endorsement to either a monetary or a wage-bargaining theory of the price level. Perhaps he thought that both had something to say.

Keynes's equivocation on the subject may have reflected the central position of the trade unions in British society. A strong and influential trade union movement has continued for most of the 50 or so years since the publication of *The General Theory* and obliged economists in the UK to pay trade unionism more attention than their counterparts in the USA. Not surprisingly, therefore, greater anxiety in the UK about the trade unions' impact on the labour market and the economy has differentiated American and British monetarism, although the differences are more matters of emphasis than of substance.

British monetarists are more prone to claim that trade unions, by disrupting the setting of market-clearing wages, aggravate the problem of unemployment. This argument is integrated into a specifically monetarist framework by saying that trade union activity increases the natural rate of unemployment. The point is that, in a situation such as the UK's where there have traditionally been strong political pressures to reduce unemployment below the natural rate, inflation expectations have been contaminated by occasional phases of excess demand. As long periods of unemployment above the natural rate have then been needed to remove the inflationary virus, and as these have always involved restrictive and unpopular monetary policies, trade union activism has indirectly stigmatized the deliberate use of monetary policy. British monetarists therefore accord trade unions a more prominent and active role in the inflationary process than American monetarists.[36]

Friedman's position on the trade unions is that they can alter relative wages (that is, the ratio between union and non-union wages), but they cannot influence the absolute level of wages (that is, union and non-union wages combined) which is determined by, among other things, the money supply. Moreover, a given amount of trade union power cannot explain continuing inflation. When asked at an Institute of Economic Affairs lecture in 1974 whether trade unions could increase the natural rate of unemployment, Friedman acknowledged that this was 'a very difficult question to answer', but reiterated that 'what produced...inflation is not trade unions, nor monopolistic employers, but what happens to the quantity of money'.[37]

The problem posed by trade unionism for British monetarism has been exacerbated by the dominance of trade unionism in the public sector. While there are reasonably obvious transmission mechanisms between monetary policy and private sector inflation, it is far from evident how monetary policy affects the public sector. Wages and prices in government and nationalized industries are typically set by administrative fiat and are remote from market forces. One exercise on the demand for money in the UK recognized this by regressing the money supply on private sector GDP, not GDP as a whole.[38] It would not occur to American monetarists – with the USA's small government sector and weaker trade unions – to be so fastidious.

The British economy also differs from the American in being smaller and more susceptible to international influences. Since this difference has made British monetarists more concerned about external pressures on domestic monetary policy than their American counterparts, it has stimulated a lively debate about the appropriateness of alternative exchange rate regimes. This debate has continued over many decades, with Keynes's argument for a managed currency in *A Tract on Monetary Reform* being one of the most seminal contributions. Indeed, it could be claimed that when Sir Geoffrey Howe expressed such a decided preference for monetary targets over a fixed exchange rate in 1981 he was echoing a famous passage in the *Tract* where Keynes set up an opposition between stability of prices and stability of exchange. In his words, 'If the external price level is unstable, we cannot keep both our own price level and our exchanges stable. And we are compelled to choose'.[39]

In the mid-1970s, however, Mr Healey failed to choose one or the other. Some interest rate changes were motivated by external factors, some by domestic considerations and some by both. The result was rather unhappy not just intellectually, but also practically, with 1976 seeing the most prolonged and embarrassing sterling crisis in the post-war period. The monetarist commitment to floating exchange rates in the early 1980s can be interpreted largely as a reaction to the muddles of the first three years of Mr Healey's Chancellorship. But a number of key theoretical inputs also moulded the climate of opinion and need to be mentioned. They can be dated back to the late 1960s, when leading economic journalists – egged on by Professor Harry Johnson of the University of Chicago and the London School of Economics – thought that the abandonment of a fixed exchange rate would remove an artificial barrier to British economic growth. More immediately relevant in the late 1970s was work done by Laidler and Parkin at the Manchester Inflation Workshop.[40]

An episode in late 1977 is basic to understanding the fervour of the monetarist support for a floating exchange rate in 1980 and 1981. After the excessive depreciation of 1976 the pound revived in 1977, and for much of the year its rise was restrained by heavy foreign exchange intervention. This intervention had the effect of boosting the money supply, which in consequence grew much faster than envisaged by the official target. (The target was for an increase of 9 to 13 per cent in sterling M3 in the 1977/78 financial year. The actual result was an increase of 15.1 per cent.) Monetarist economists argued that the high monetary growth jeopardized the financial progress achieved under the International Monetary Fund programmes and, after the usual lag, would be punished by higher inflation; more conventional economists at the Treasury and elsewhere thought that a 'low' exchange rate was needed for reasons of export competitiveness. The debate was conducted at several levels and is reported to have been particularly intense within the official machine.

When the Government stopped intervening and allowed the pound to float upwards in October 1977, the monetarists seemed to have won. But their victory was not final. Although they were vindicated by a sharp upturn in inflation in late 1979 and early 1980 (after a fairly standard Friedmanite two-year lag), there were constant complaints that the Government's permissive attitude towards the exchange rate allowed undue exchange rate appreciation. Among the most active participants to the 1977 debate were economists at the London Business School. On the whole they favoured adhering to the money supply targets and allowing the exchange rate to float. A particularly notable contribution was made by Terence (later Sir Terence) Burns, who was to become the Government's Chief Economic Adviser in 1979.[41]

The views of British monetarists in the late 1970s and early 1980s were not radically different from those of their American counterparts. Perhaps the most classic statement of the merits of floating was given by Friedman in his 1950 paper on 'The case for flexible exchange rates'.[42] This paper was perfunctory in its treatment of the impact of foreign exchange intervention on money growth, which was basic to the UK debate in the late 1970s. But its mood, with its aspersions on the forecasting ability of central bank officials and its praise for market forces, was close to that of the Thatcher Government in its early years. In his evidence to the Treasury and Civil Service Committee in 1980, Friedman said that 'of course' an attempt to manipulate the exchange rate would limit the authorities' ability to control the money supply. He also criticized the Government's announced policy of preventing excessive fluctuations in the exchange rate. In his opinion, 'this exception is a mistake; better to leave the market entirely free ... certainly for such a broad and efficient market as exists in British sterling'.[43]

As it happened, the Government in 1980 and early 1981 did not make an exception, even for a patently excessive fluctuation in the exchange rate. The pound became seriously over-valued, reaching $2.42 in October 1980 compared to $1.63 in October 1976, and in February 1981 almost 5 to the

Deutschmark compared with 4 one year earlier. These exchange rate antics have subsequently been singled out as the principal policy disappointment of the monetarist experiment. Inevitably, there has been much soul-searching about the suitability of monetary targets in a small economy subject to all the volatilities of contemporary international finance. It is interesting that Keynes, when describing the alternatives of price stability and exchange stability in the *Tract*, conceded that the right choice must 'partly depend on the relative importance of foreign trade in the economic life of the country'.[44] Indeed, the book's final paragraph suggested that 'there are probably no countries, other than Great Britain and the United States, which would be justified in attempting to set up an independent standard'. Other countries could decide to peg their currencies to either sterling or the dollar until, 'with the progress of knowledge and understanding, so perfect a harmony had been established between the two that the choice was a matter of indifference'.[45]

The period of strong monetarist influence over policy-making was short-lived, although its precise length is a matter for discussion and depends on whose version of events one selects. At one extreme it has been argued that broad money targets were discredited in July 1980 when the abolition of the 'corset' was followed by a jump of over 5 per cent in sterling M3 in only one month. (The corset was an artificial device for restricting credit, which imposed penalties on banks when their balance sheets increased faster than given percentage figures.) Officials quickly realized that the original sterling M3 target for the year to March 1981, which was for growth of between 7 and 11 per cent, was unattainable. They therefore sought forms of words to explain away – and, as far as possible, divert attention from – a serious monetary overshoot. In the end sterling M3 rose by 19.4 per cent in the 1980/81 target period. This wide divergence from target, combined with the apparent failure of high interest rates to bring M3 back under control, is said by some authors to have caused monetarism to be abandoned only a few months after it had been publicly proclaimed as official dogma.[46]

However, a more plausible account would treat the erosion of the system set up in early 1980 as a gradual process. There are various possibilities, but mid-1985 is probably best regarded as the terminal phase. It was then that broad money targets, and hence the defining features of British monetarism, were scrapped. Just as monetarism did not gain ground by a simple process of intellectual conquest, so it did not retreat through a straightforward failure to meet key practical tests. Instead there were a number of distinct and intermittent challenges to monetarist arrangements. Although none of them individually might have been decisive, their cumulative impact was difficult to resist.

The first major problem was the pound's clear overvaluation in late 1980 and early 1981. The reasons for sterling's appreciation have been much debated, but one thesis – that above-target broad money growth obliged the Government to maintain high interest rates, and high interest rates drove up the sterling exchange rate – had obvious cogency and relevance. As we have seen, both Sir Geoffrey Howe and Keynes had argued, in their different ways, that 'you cannot have it both ways', and simultaneously control the domestic price level and the exchange rate. But the experience of 1980 and 1981 suggested that Britain should try to have it both ways. It was better to have an intellectually muddled monetary policy than a politically unacceptable industrial recession. In 1982 and 1983 official thinking was that the exchange rate should have some role in assessing monetary conditions, while the monetary targets should be retained. After severe exchange rate overvaluation had caused a drastic fall in industrial production between mid-1980 and mid-1981, the Government was less concerned about the logical niceties of the matter than about avoiding further damage to the manufacturing base.

The second difficulty was that sterling M3 proved awkward to manage. The 1980 Green Paper on *Monetary Control* may not have been particularly optimistic about month-by-month control, but at least it thought that sterling M3 could be brought within target 'over a year or more'. The large overshoot in 1980/81 undermined the credibility of even that rather unambitious statement. When there was another overshoot in the 1981/82 financial year, with sterling M3 up by 13 per cent compared to a target range of 6 to 10 per cent, many economists agreed with the then chief Opposition spokesman on Treasury and economic affairs, Peter Shore, that sterling M3 had become 'a wayward mistress'. There was a widely-held view that sterling M3 was no longer a reliable intermediate target and that policy should be stated more flexibly. For those who still favoured monetary targets in some form, the disappointments with M3 targeting implied that monetary base control deserved more sympathetic consideration. The disillusionment with broad money was accompanied by increased interest in narrow money, either in the monetary base itself (also known as 'M0') or in M1 (cash in circulation with the public, plus sight deposits).

These changes in official allegiances and informed opinion, away from money targets to the exchange rate and from broad money to narrow money, were largely determined by the pattern of events. But intellectual rationalization was not far behind. A key figure in the dethronement of sterling M3 was Sir Alan Walters. Although his credentials when appointed as the Prime Minister's Economic Adviser in 1981 were avowedly 'monetarist', his monetarism was very different in character from the 'British monetarism' described here. He had been much influenced by the American enthusiasm for monetary base control and was doubtful about the merits of operating on the credit counterparts to achieve broad money targets. His preference was for a measure of money used in transactions, which he thought was best approximated in the UK's case by M1. Despite problems because of institutional change, he believed that, 'It is money in this transactions sense that plays the central role in the theoretical structure and the propositions of monetarism.' He judged that credit had 'but a minor role' and was correspondingly sceptical about 'such credit magnitudes as M3'.[47]

A consequence of the demotion of broad money was that less concern was felt about the rapid growth of credit in the private sector. Indeed, there was a school of thought – best represented by the Liverpool Research Group under Professor Patrick Minford – that bank lending to the private sector was always good for the economy, since it made possible more private sector spending and investment. High levels of lending were therefore welcomed, irrespective of the monetary repercussions. In some of its publications this group also suggested that large increases in broad money contained no inflationary threat. According to one issue of its *Quarterly Economic Bulletin*, credit – even credit in the form of bank lending – cannot be inflationary. Its argument was that, since borrowing by some individuals must be accompanied by lending by others, there is no net addition to or subtraction from wealth, and there should be no effect on behaviour. Thus, when both sides of a balance sheet increase: 'This is a straightforward portfolio adjustment and is not inflationary'.[48] Professor Minford, like Sir Alan Walters, had been much influenced by the American literature. As a reflection of this background, he regarded narrow money (particularly M0) as the most trustworthy money supply indicator and favoured monetary base control.

By 1983 and 1984 the views of Walters and Minford had been important in undermining the original monetarist arrangements. These arrangements suffered most from policy surprises and disappointments, and from criticisms from non-monetarist or frankly anti-monetarist economists. But the willingness of two economists carrying the 'monetarist' label to denigrate certain aspects of the existing policy framework reinforced the suspicion and distrust with which British monetarism had always been viewed by the press, Whitehall and the majority of academic economists. Since Walters and Minford had undoubtedly been keen students of monetarist thought coming from the other side of the Atlantic, their susceptibility to its teachings meant that American monetrarism contributed – if somewhat indirectly – to the decline of British monetarism.[49]

In another respect, however, Walters and Minford were loyal to the policy structure envisaged in 1980 and 1981. Although Walters promoted a 1981 report by Jurg Niehans which identified sterling's sharp appreciation as a symptom of monetary tightness, he was adamantly opposed to attempts to manage the exchange rate by foreign exchange intervention. He wanted policy to be geared towards domestic monetary objectives and not towards the preservation of a fixed exchange rate or a target exchange-rate band. Indeed, he thought that these conditions still 'broadly' applied to the UK in 1985 when he wrote, in *Britain's Economic Renaissance*, that: 'The authorities announce that the level of short-term interest rates will depend primarily on the assessment of the movement in the monetary aggregates. The exchange rate is to be the object of benign neglect.'[50] Minford was equally hostile to systematic foreign-exchange intervention. In a paper first presented in 1980, he took it for granted that an 'independent monetary policy is possible' and noted that this 'presupposition is only valid under floating exchange rates'.[51]

Unlike the tendency to play down the significance of credit and broad money, the increasing official preoccupation with the exchange rate in the early and mid-1980s therefore cannot be ascribed to pressure from Walters and Minford, or to the influence of American monetarist ideas. In the end it was the completeness of the shift in official priorities from domestic monetary control to exchange rate stability which was primarily responsible for monetarism's downfall. Although several official statements had already hinted at the precedence of exchange rate stability as a policy goal, the Plaza Accord of September 1985 may have been the key turning-point. At the Plaza meeting the finance ministers of the five leading industrial nations decided that in future they should co-operate more actively to achieve an appropriate pattern of exchange rates. Thereafter the Chancellor of the Exchequer, Nigel Lawson, was constantly mindful of this international responsibility and gave less attention to domestic monetary issues.

Other considerations, more local and humdrum, pointed policy in the same direction. The standard British practice of long-term funding, which had so bewildered Federal Reserve officials in 1982, was beginning to cause technical problems in the UK's short-term money markets by mid-1985. The authorities decided that they could no longer 'overfund' the PSBR in order to keep broad money on target. Without this technique, which had proved immensely useful as a means of curbing the growth of the monetary aggregates, there were likely to be great difficulties meeting broad money targets.[52] In addition to all the other supposed weaknesses of broad money, sterling M3 was now condemned for complicating the management of the money markets. In his Mansion House speech on 17 October 1985 Nigel Lawson suspended the broad money target for the 1985/86 financial year.

This was effectively the end of British monetarism. Although ostensibly only 'suspended', broad money targets had in fact been abandoned. A broad money target was announced in the 1986 Budget, but the envisaged growth rate was so high that it was not a worthwhile constraint on inflation. Despite that, the target was soon exceeded and Mr Lawson suspended it again. By late 1986 the UK was in the early stages of a vigorous boom driven by extraordinarily rapid growth in bank lending and broad money. Although the Government refrained from fiscal reflation, the credit and money excesses of 1987 and early 1988 were curiously similar to those seen in the Barber boom of the early 1970s. This was richly ironic, since the inflation which followed the Barber boom had been largely responsible for policy-makers' initial receptiveness to American monetarist ideas in the late 1970s.

The Government did announce and observe narrow money targets, expressed in terms of M0, throughout 1986 and 1987. But, as its champions ought to have known, M0 tracks recent movements in money transactions and does not influence the future behaviour of the economy. The behaviour of narrow money completely failed to warn the Government about the widening payments gap and rising inflation trend which emerged in late 1988. If Nigel Lawson had a meaningful anti-inflation policy in these years, the key instrument was the exchange rate for the pound and the central idea was that exchange rate stability would ensure rough equivalence between inflation in the UK and other industrial countries. As the dollar was falling heavily from early 1985 because of the USA's enormous trade and current account deficits, it seemed sensible to watch the pound/Deutschmark exchange rate more closely than the pound/dollar rate or, indeed, the effective exchange rate against a weighted basket of other major currencies. Throughout 1987 sterling was held fairly stable in a band of 2.85 to 3 Deutschmark.

This shadowing of the Deutschmark meant that the UK was virtually a participant in the exchange rate mechanism of the European Monetary System. Nigel Lawson had opted for an external financial discipline in preference to the domestic focus associated with money supply targets. Since this was obviously a major change in strategy from the early years of the Thatcher Government, an active public debate developed about the advantages and disadvantages of full EMS membership. Most academic economists approved of Lawson's new approach and thought it a welcome change from the doctrinaire monetarism he had espoused as Financial Secretary to the Treasury in 1980. But old-style monetarists (as they now were being called) were mostly hostile to EMS membership, while Walters and Minford were particularly outspoken in their attacks on it. In *Britain's Economic Renaissance*, Walters described the EMS as 'rather messy' and remarked that the periodic exchange rate realignments, far from being determined in an economically rational way, were 'grand political events which present many opportunities for horse-trading, threats, counter threats, bluff, etc.'.[53] In his view, it would be best if the UK had nothing to do with it. In adopting this position, Walters was following the mainstream monetarist tradition, in favour of freely floating exchange rates, associated with Friedman and Johnson.

After Walters had persuaded the Prime Minister, Margaret Thatcher, that the EMS was a bad idea, she was increasingly worried about how Lawson was organizing monetary policy. Although at the time of writing (September 1988), the precise terms of their discussions are largely a matter of conjecture, it is clear that their private disagreements became steadily more acrimonious and eventually could not be hidden from the press or their Cabinet colleagues. On 7 March 1988 Margaret Thatcher indicated to the Bank of England her wish that foreign exchange intervention be more limited in scale. The pound soon appreciated sharply against the Deutschmark. However, this did not foreshadow a return to money supply targets. In the Budget on 15 March Nigel Lawson did not reinstate a broad money target and even narrow money received a sharp snub. The M0 target was rendered ineffective, if only temporarily, by the admission, in the Treasury's *Financial Statement and Budget Report*, that no specific action would be taken to correct an overshoot which was expected to emerge early in the coming financial year.

By mid-1988 economic policy was in a fairly standard British muddle. The coherence and relative simplicity of the 1980-style monetarist framework had been replaced by a confusion and complexity highly reminiscent of the Healey Chancellorship in the mid-1970s. Government policy involved 'looking at everything' (the exchange rate, bank lending, house prices and the trade figures) and decisions were often the result of a lucky dip between options suggested by events in the financial markets. The UK had dropped broad money targets of a kind favoured by British monetarists; it had not adopted monetary base control as recommended by American monetarists; it had had an unsatisfactory experience with narrow money targets supported by American-influenced monetarists such as Walters and Minford; and it had equivocated before rejecting, at least provisionally, full membership of the EMS.

The many fluctuations in policy fashion in the 1980s should not be allowed to disguise a number of successes which were clearly attributable to the original monetarist programme. Most obviously, the inflation rate was reduced from an average of almost 15 per cent in the late 1970s to about 5 per cent in the five years from 1982. In view of the substantial monetary overshoots in 1980/81 and 1981/82, this achievement may have seemed more due to serendipity than scientific management. But in all of the next three financial years the broad money target was met, and in early 1985 the annual growth of sterling M3 was down to under 10 per cent. Meanwhile the Government broadly adhered to the fiscal side of the Medium-Term Financial Strategy.

The result was that in the years of moderate growth from 1982 to 1986 the ratio of public sector debt to national output was falling, while in the Lawson boom of 1987 and 1988 tax revenues were so buoyant that the Government actually ran a large budget surplus. The UK was therefore saved from the worries about long-run fiscal solvency which troubled some other European nations.[54] The soundness of the UK's public finances was also, of course, in sharp contrast to the USA's problems with budget deficits throughout the 1980s. With the benefit of hindsight, fiscal issues seem to have been handled more prudently by British monetarists than their American counterparts.[55]

Indeed, there is something of a puzzle about the Government's – or, at any rate, Nigel Lawson's – decision in 1985 to scrap the monetarist machinery with which it (and he) had been so closely associated five years earlier. As we have seen, there were many pressures tending to undermine the monetarist approach throughout the early 1980s, but one central point could not be overlooked. Monetarism had accomplished most of the original objectives held by its supporters as set out in the key policy documents of 1979 and 1980. Why, then, had the monetarist approach to macroeconomic policy disintegrated so quickly?

Perhaps the main solvents were the hostility of the traditional policy-making establishment, particularly academic economists in the universities, and the incomprehension of many influential commentators in the media. The aversion of the policy-making establishment may have had political roots. It is a safe sociological generalization that the majority of university teachers in Britain do not like Mrs Thatcher and do not vote Conservative. They are more sympathetic to socialism or the mixed economy than to competitive capitalism. It would be consistent if they disliked monetarism as much for the free-market evangelism of its high priests as for its technical content. Also important in explaining their attitudes is that British economists had become habituated to basing macroeconomic policy on external criteria, notably the exchange rate, instead of analysing domestic monetary conditions. Officials at the Bank of England, which for most of its history had been charged with keeping the pound stable in value against gold or the dollar, undoubtedly found it more natural to adjust interest rates in response to exchange rate movements than to deviations of the money supply from its target level.

In this context the debates between British and American monetarists were important. In the circumstances of the early 1980s, when monetarism was very much on trial, the new system needed to be defended with simple and convincing arguments by a cohesive group of advocates. Instead the arguments were typically of extreme complexity, while often they were more heated between rival members of the monetarist camp than between monetarists and non-monetarists. The differences betwen the British and American methods provided material and personnel for these disputes, and therefore weakened the monetarist position in public debate. Samuel Brittan of the *Financial Times*, the UK's most influential economic commentator, referred dismissively on several occasions to 'monetarist mumbo-jumbo', well aware that most of his readers were bored by technicalities. To him, and to many other people, membership of the EMS – with its uncomplicated exchange rate disciple – had great appeal.

There is a paradox here. Many critics of monetarism assumed the label of 'Keynesian' and clearly believed that their views were in a direct line of descent from Keynes himself. But, as we have seen, this is questionable. One consistent theme throughout Keynes's career was that monetary policy should be directed to the attainment of domestic policy objectives (price stability and full employment), not to fixing the international value of the pound (either in terms of gold or another currency). In 1923 he mentioned in *A Tract on Monetary Reform*, with evident approval and sympathy, 'the pioneer of price stability as against exchange stability, Irving Fisher'.[56] (It is intriguing that Irving Fisher is usually seen as an intellectual ancestor of Milton Friedman. It is certain that he wanted monetary policy geared to domestic economic goals, not to a numerically arbitrary exchange rate. Indeed, this is the central policy implication of his idea of a managed currency.)

After the abandonment of monetarism in the mid-1980s, there is little prospect that the UK will ever adopt Keynes's managed currency or anything resembling it. When he wrote the *Tract* in 1923, Britain had extensive commercial influence throughout the world. Its size relative to other countries justified it 'in attempting to set up an independent standard' as a complement to the dollar area. By contrast, in the late 1980s the UK is in a transitional and historically ambiguous position. It is no longer large enough to dominate a supra-national currency area, but it is not so small that membership of a European currency arrangement is self-evidently optimal. This dilemma, posed by the decline in British economic and financial power in the 65 years since the publication of the *Tract*, is basic to understanding policy-makers' resistance to a managed currency over the whole period. Perhaps the detailed blueprint for a managed currency would still have been unattractive if it had come not in the form of monetarism, but in a less ideologically unpalatable and far-reaching package. The trouble was that the Treasury and the Bank of England, knowing that the UK was in long-term financial retreat, lacked the self-confidence to make a managed currency work. American monetarists, coming from a large, self-contained economy, could more confidently recommend an ambitious and independent style of monetary policy than their British equivalents. It may always have been rather naive to expect that ideas nurtured in the University of Chicago could be easily transplanted to Whitehall and Threadneedle Street.

Notes

1. H.M. Treasury press release, 9 June 1980. Statement by Nigel Lawson, MP, Financial Secretary to the Treasury during his meeting with regional city editors.
2. T. Mayer, *The Structure of Monetarism* (New York and London: Norton, 1978). See, particularly, p. 2 for a list of 12 characteristic monetarist propositions.
3. *Monetary Control*, Cmnd 7858 (London: H.M.S.O., 1980), and Memorandum of H.M. Treasury, pp. 86–95, in Vol. II, *Minutes of Evidence of Third Report from the House of Commons Treasury and Civil Service Committee*, Session 1980–1 (London: H.M.S.O., 1981).
4. Ibid., p. 90.
5. Note by H.M. Treasury on 'The stability of the income velocity of circulation of money supply', pp. 126–7, in *Third Report from the Treasury and Civil Service Committee*, Session 1980–1.
6. For an example of the approach see the chapter on 'Bank lending and monetary control' in C. A. E. Goodhart, *Monetary Theory and Practice* (London, Macmillan: 1984), pp. 122–45.
7. It should be added that interest rate changes act not only on bank lending, but also on the ability of the authorities to sell gilt-edged securities as part of the funding programme.
8. *Monetary Control*, p. 1.
9. *Monetary Control*, p. 2.
10. Memorandum by H.M. Treasury, p. 89.
11. See, for example, J. Burton, 'Trade unions' role in the British disease: "An interest in inflation"', pp. 99–111, in A. Seldon (ed.), *Is Monetarism Enough?* (London: Institute of Economic Affairs, 1980), particularly pp. 105–6; and T. G. Congdon, 'Why has monetarism failed so far?', in *The Banker* (April 1982), pp. 43–9. The subject is also discussed in T. G. Congdon, *Monetarism: An Essay in Definition* (London: Centre for Policy Studies, 1978), particularly pp. 53–6.
12. J. M. Keynes, *A Tract on Monetary Reform* (1923), reprinted in *The Collected Writings of John Maynard Keynes* Vol. IV, ed. D. Moggridge and E. Johnson (London: Macmillan for the Royal Economic Society, 1971), pp. 126, 132 and 138.
13. H.M. Treasury press release, 12 May 1981. The Mais Lecture given by Sir Geoffrey Howe, QC, MP, Chancellor of the Exchequer, at the City University, p. 11.
14. Mayer, *Monetarism*, p. 27.
15. Few economists would regard the monetary base by itself as constituting a measure of the money supply. The Treasury is therefore rather iconoclastic in its attitute toward M0, which has been regarded as the full-scale aggregate since 1983.
16. The quotation comes from p. 71 of P. Meek, 'Comment on papers presented by Messrs. Forece and Coleby', in P. Meek (ed.), *Central Bank Views on Monetary Targeting* (New York: Federal Reserve Bank of New York, 1983), pp. 70–1.
17. The quotations are from p. 57 of M. Friedman, 'Response to questionnaire on monetary policy', in House of Commons Treasury and Civil Service Committee (Session 1979–80) *Memoranda on Monetary Policy* (London: H.M.S.O., 1980), pp. 55–62.
18. The arrangements are described in 'The role of the Bank of England in the money market', in *The Development and Operation of Monetary Policy 1960–83* (Oxford University Press for the Bank of England, 1984), pp. 156–64.
19. Econometric work may identify a contemporaneous link between the monetary base and one or other measure of the money supply, but that does not mean that the base 'explains' money rather than the other way round. If one wanted to predict the growth of M3 over the next six to 12 months, the level of monetary base today would not be much help, but forecasts of bank lending and the PSBR would be.
20. Meek, 'Comment', p. 70.
21. Friedman, 'Response', p. 58.

22. J. M. Keynes, *A Treatise on Money: 2. The Applied Theory of Money* (1930) reprinted in *Collected Writings*, Vol. VI (1971), pp. 224 and 225.
23. Ibid., p. 231.
24. Ibid., p. 225.
25. J. M. Keynes, *The General Theory of Employment, Interest and Money* (1936), reprinted in *Collected Writings*, Vol. III (1973), p. 327.
26. Keynes, *Treatise 2*, in *Collected Writings*, Vol. V (1971), pp. 30–2 and pp. 217–30. These distinctions anticipate the more celebrated analysis of the motives for holding money in *The General Theory*.
27. H.M. Treasury press release, 19 October 1978. Speech by Rt Hon. Denis Healey, MP, Chancellor of the Exchequer, to the Lord Mayor's dinner.
28. The quotation is from p. 97 of P. E. Middleton, 'The relationship between fiscal and monetary policy', in M. J. Artis and M. H. Miller (eds), *Essays in Fiscal and Monetary Policy* (Oxford University Press, 1981), pp. 95–116.
29. See pp. 21–3 of T. G. Congdon, 'The analytical foundations of the Medium-Term Financial Strategy', in M. Keen (ed.), *The Economy and the 1984 Budget* (Oxford: Basil Blackwell for the Institute of Fiscal Studies, 1984), pp. 17–29.
30. Mentioned on p. 5 of J. L. Jordan, 'The Anderson Jordan approach after nearly 20 years', in *Federal Reserve Bank of St Louis Review* (October 1986), pp. 5–8.
31. Friedman, 'Response', p. 56.
32. The quotation is from p. 2 of C. J. Allsop, 'The assessment: monetary and fiscal policy in the 1980s', in *Oxford Review of Economic Policy*, 1, 1 (Spring 1985), pp. 1–19.
33. Friedman, 'Response', p. 59.
34. Mayer, *Monetarism*, pp. 24–5.
35. Keynes, *General Theory*, p. 306.
36. Thus, for example, Laidler's awareness of trade union power may have been one reason for his advocacy of a 'gradualist' approach to the elimination of inflation. See D. Laidler on the case for gradualism, in Laidler, *Monetarist Perspectives* (Oxford: Philip Allan, 1982), Ch. 5, pp. 176–7.
37. M. Friedman, *Unemployment verus Inflation?* (London: Institute of Economic Affairs, 1975), pp. 30–5. The quotations are from pp. 32 and 33.
38. A. Budd, S. Holly, A. Longbottom and D. Smith, 'Does monetarism fit the UK facts?' in B. Griffiths and G. E. Wood (eds), *Monetarism in the United Kingdom* (London: Macmillan, 1984), pp. 75–119.
39. Keynes, *Tract*, p. 126.
40. See, for example, M. Parkin and G. Zis (eds), *Inflation in Open Economies* (Manchester University Press and University of Toronto Press, 1976).
41. See R. J. Ball and T. Burns, 'Long-run portfolio equilibrium and balance-of-payments adjustment in econometric models', in J. Sawyer (ed.), *Modelling the International Transmission Mechanism* (Amsterdam: North-Holland, 1979) for an example of his writings at that time.
42. Reprinted in M. Friedman, *Essays in Positive Economics* (University of Chicago Press, 1953).
43. Friedman, 'Response', p. 53.
44. Keynes, *Tract*, p. 126.
45. Ibid., pp. 159–60.
46. G. Maynard, *The Economy under Mrs Thatcher* (Oxford: Basil Blackwell, 1988), p. 100.
47. A. Walters, *Britain's Economic Renaissance* (New York and Oxford: Oxford University Press, 1986), pp. 117 and 121. The description of M3 as a 'credit aggregate' is surprising. M3 consists of notes, coin and bank deposits. To say that its growth is driven by bank credit is *not* to say that bank deposits are the same thing as bank loans. (They evidently are not.) In any case, the growth of M1 – or, indeed, even of M0 – is also driven by credit. T. G. Congdon, 'Credit, broad money and the economy', in D. Llewellyn (ed.), *Money* (London: Macmillan, for the Economic Research Council), forthcoming [at the time of writing, September 1987, and reprinted here on pp. 171–90].

48. Liverpool Research Group in Macroeconomics *Quarterly Economic Bulletin* (October 1987), p. 13. If this proposition were true, it would have drastic implications for economic theory and policy. But it overlooks the banks' liquidity-transformation role. Since cheques can be written against bank deposits and there is no loss of cheque-writing ability because of the existence of bank loans, the simultaneous expansion of deposits and loans increases the economy's liquidity and can change behaviour.
49. More direct damage to British monetarism came in other ways; for example, *The Observer* – which, under the lead of its Economics Editor, William Keegan, was strongly anti-monetarist – reprinted Friedman's 1980 evidence to the Treasury and Civil Service Committee. It correctly judged that this evidence would weaken the credibility of official policy.
50. Walters, *Renaissance*, p. 135.
51. P. Minford, 'The exchange rate and monetary policy', pp. 120–42, in W. A. Eltis and P. J. N. Sinclair (eds) *The Money Supply and the Exchange Rate* (Oxford: Clarendon Press, 1981). The quotation is from p. 121.
52. Again, see the chapter on bank lending and monetary control in Goodhart, *Monetary Theory*. On p. 126 Goodhart noted that 'official reactions in the gilts market to developments in the monetary aggregates ... have been relatively successful in offsetting unforeseen variations' in bank lending and other influences on broad money growth.
53. Walters, *Renaissance*, pp. 128 and 131.
54. These worries, which were particularly serious in Italy, Ireland and Belgium, are discussed in Chapters 1–3 of T. G. Congdon, *The Debt Threat* (Oxford: Basil Blackwell, 1988).
55. Perhaps it should not come as a surprise, after his remarks to the Treasury and Civil Service Committee in 1980, that Friedman should claim in a letter to *The Wall Street Journal* on 4 September 1984 that he did not regard the USA's budget deficit as a major issue or a cause for concern.
56. Keynes, *Tract*, p. 147.

The Exchange Rate in British Monetary Policy – or Where British Economics Went Wrong

From an inaugural lecture at Cardiff Business School in November 1990.

My 1975 article in Encounter *protested against the inaccuracy of labelling advocates of incomes policy as 'Keynesian'. An even stranger practice in the nomenclature of British economics is that many 'Keynesians' have been happy, even keen, to base interest rates on the exchange rate. (The latest illustration of this tendency is that the great majority of British economists have supported full participation in the European exchange rate mechanism.) In fact, as both this paper and the 1987 paper at the University of Kent show, Keynes was consistently opposed to subordinating British monetary policy to the exchange rate.*

Indeed, many British economists seem unwilling to appraise monetary policy in terms of its domestic consequences. They think of monetary policy solely as a means of influencing the exchange rate. The interesting question is, then, why they think about monetary policy in such a narrowly confined *way. In my lecture I suggested that the answer be sought in the history of monetary policy in Britain.*

One of the most-quoted remarks in economics comes in the final chapter of Keynes's *General Theory of Employment, Interest and Money*, where he says:

> the ideas of economists, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.[1]

Keynes believed that his book would be a particularly powerful 'intellectual influence' on such 'practical men'. He hoped that, by adopting his recommendations of increased state ownership and the counter-cyclical variation of public investment, the Government would in future be able to prevent large swings in unemployment. He wanted to make the trade cycle obsolete.

For about 25 years after the Second World War British economists thought that Keynes's ambition had been largely fulfilled. Of course, there were fluctuations in economic activity in the 1950s and 1960s. But these fluctuations, known as 'stop–go cycles', were mild by comparison with those in the inter-war period or the 19th century. Although unemployment varied in the course of the stop–go cycle, it never – even at the most immobile point of the 'stop' – amounted to more than a fraction of what it had been in the 1930s. This achievement, the so-called 'Keynesian Revolution', was taken to be the triumph of modern economic theory over a number of ancient financial prejudices, notably the doctrine that the Government should balance its budget. In the late 1960s no British economist expected the next 25 years to see large cyclical fluctuations in economic activity. The trade cycle may not yet have been obsolete, but it was thought to have depreciated to the point of insignificance.

Unhappily, these expectations were to prove wrong. The next 25 years were to see three major cyclical episodes. The first was the Barber boom of 1972 and 1973, followed by the severe downturn of 1974 and 1975; the second, from early 1978 to mid-1979, could be called the Healey boomlet, and gave way to the recession of 1980 and early 1981; and the third was the Lawson boom of mid-1986 to mid-1988, which preceded the current recession. These episodes were not as extreme as the slump of the early 1930s, but they were comparable – in the amplitude of the fluctuations and other characteristics – to the trade cycles of the 19th century. They were certainly more noticeable than the stop–go cycles of the immediate post-war decades. The questions arise, 'why have these large cyclical fluctuations come back?', 'what mistakes have governments been making?' and 'have their mistakes been tactical and accidental in nature, or the result of a strategic misunderstanding of how the economy works?'. More pointedly, why did the madmen in authority behave as they did? And to which defunct economists were they listening?

In attempting to answer these questions the approach in this lecture will be largely historical. As we shall see, the reference to 'defunct economists' will not be purely rhetorical. The aim will be to consider why British economists, and hence the British Government, have been so unprepared for the problems of the last 25 years. The underlying assumption is that events cannot be understood without an explanation – or at least an interpretation – of why people thought in the way they did. The lecture will therefore be mostly an exercise in the history of ideas, particularly ideas about macroeconomic policy.

The notion of 'macroeconomic policy' is very modern. In the 18th century no one believed that the Government had either the ability or the responsibility to manage the economy. Cyclical fluctuations in economic activity were sometimes pronounced, but these were regarded as Acts of God like the weather or earthquakes. In particular, theorizing about the role of money in the trade cycle was rudimentary. In previous centuries the money stock had consisted entirely of metals, particularly gold and silver, and the quantity of money had therefore been determined by the past production of gold and silver mines. There had been little scope to substitute paper for these metals, because of the lack of trust in paper alternatives. However, as the 18th century wore on, Britain's political stability and the development of a satisfactory legal framework encouraged people to carry out an increasing proportion of their transactions in bank notes and bills of exchange. These paper instruments – whose validity depended on credit – came increasingly to perform the monetary functions of the precious metals.

But the growth of paper credit carried a risk. This risk was that the individuals and organizations that issued these paper alternatives to the precious metals might not be able to redeem them at their face value. A goldsmith banker might issue a note recognizing an obligation to repay the bearer on demand a particular weight of gold or silver, and the note might circulate widely and with perfect creditworthiness for many months. But, if one of its holders presented it to the goldsmith banker and he was unable – for any reason – to pay over the stated quantity of precious metal, his entire note issue would fall into disrepute and this part of the money stock would be removed from circulation. Sudden collapses in the creditworthiness of paper lay behind some of the most severe cyclical fluctuations of the 18th century, even though precious metals continued to be the most important monetary asset. London bankers tried to anticipate the dangers by opening accounts and establishing a good relationship with the Bank of England, on the understanding that the Bank would act as a source of precious metals in an emergency. Country bankers in turn opened accounts and established good relationships with the London bankers.

The Parliamentary response to these developments was twofold. First, restrictions were placed on the ability of private banks to issue notes, although these restrictions were surprisingly late in coming and were more a feature of the 19th than the 18th century. Secondly, the Bank of England – which was seen as the core institution from an early stage – was required in successive Bank Charter Acts to redeem its liabilities at a fixed price in terms of the precious metals. The price of gold was fixed at £3. 17s. 10½d. an ounce by Sir Isaac Newton in 1717, while the first denominationalized notes were printed in 1725.[2] In other words, the Bank of England was mandated to protect a fixed exchange rate between its paper liabilities and the precious metals. After the Napoleonic Wars Parliament deprived silver of much of its former monetary role and established gold monometallism as the basis of Britain's money in 1821. Thereafter the essential features of Britain's monetary arrangements, and indeed the defining characteristics of the classical gold standard in this country, were the fixed gold price of £3. 17s. 10½d. an ounce and the ready convertibility of notes into gold and vice versa.

The logic of this system is easy to analyse and defend. Let us take it for granted that the public at large wants a money which is fairly reliable in terms of its ability to purchase non-monetary things. Precious metals have the key merit as a monetary asset that, because they are highly durable, their quantity is fairly stable from one year to the next. As long as mining technology changes only slowly and there are no new discoveries, this year's production of new gold is likely to be only a small fraction of the existing stock of the metal. In such circumstances the price of commodities in general should be roughly stable in terms of gold.

From this point of view, the introduction of paper alternatives to be precious metals is potentially a dangerous nuisance, because it could undermine the rigidity of the metallic money stock which explains its anti-inflationary virtue. So the right public-policy response is to insist that paper be convertible into gold at a fixed price. If the fixed exchange rate between paper and gold is maintained, and the value of gold remains reasonably stable in terms of commodities, then the value of paper should also remain reasonably stable in terms of commodities. The rationale for the gold standard in the 19th century was therefore very straightforward. With paper anchored to gold at a fixed exchange rate the growth of paper money could not have systematic inflationary consequences. Of course, this is also the essence of the more recent argument for fixed exchange rate arrangements with reputedly strong currencies, such as the dollar in the Bretton Woods era or the Deutschmark in the European Monetary System.

The gold standard was a success. Although the economy was subject to occasional cyclical disturbances and the price level varied both within these cycles and over longer periods, 19th-century Britain was a model of financial stability. Such was the admiration for Britain's achievement that by the 1880s most other major industrial countries had also adopted gold as the basis for their monetary systems, creating the international gold standard of the late 19th century. The 'rules of the game' were well known. The central bank of every participating country had to preserve the convertibility of its note liabilities into gold at the agreed fixed exchange rate. The paper/gold exchange rate within each country implied certain exchange rates between the paper currencies of the participant countries. If an exchange rate came under pressure, the consequent external drain on the central bank's gold reserve had to be countered by raising interest rates. On the other hand, when a central bank's gold reserve was ample, it could cut interest rates. In the case of the Bank of England, its interest rate decisions were determined fairly mechanically by watching the Proportion between its gold holdings and its deposit liabilities.[3] By the late 19th century its gold holdings varied mainly because of international pressures, rather than domestic changes in financial confidence. The practice of relating interest rate decisions to external developments became deeply entrenched.

But another and quite different approach to monetary policy would have been possible, and had indeed been intimated by some economists many years before. It would have relied on two revolutionary ideas which emerged in the debates on British financial policy during the Napoleonic Wars, debates which in their complexity and sophistication can fairly be described as the matrix of modern monetary theory. The urgency of those controversies arose because, under the strains of war, the Bank of England had been forced to suspend the convertibility of its notes into gold in 1797. There was widespread public concern that the value of the notes, which continued to circulate as currency, would decline steadily. The vital question was how to stabilize the real value of the notes in the absence of the fixed paper/gold anchor.

The first of the two revolutionary ideas was that of the 'general price level'. Nowadays the concepts of an overall price level, of a price index which quantifies it and of an inflation rate measured by changes in the index are so commonplace that we rarely stop to think about them. That was not so in the 1790s. People were aware of the need to have a reliable monetary unit and standard of value, but they were not sure how best to formalize this need in precise numerical terms. Thus, when David Ricardo wrote about the depreciation of the currency in a famous pamphlet of 1810 he gave it the title, *The High Price of Bullion, a Proof of the Depreciation of Bank Notes*. He thought of currency depreciation in terms of the price of gold, not in terms of a general price level. However, there had already been innovators who had seen the potential for applying index numbers to the problem. According to Schumpeter, 'A great step toward full realization of the importance of the method was made in 1798, when Sir George Shuckburgh Evelyn presented a paper to the Royal Society in which, with apologies for treating a subject so much below the dignity of that august body, he used an index number – of a primitive kind no doubt – for measuring the "depreciation of money".'[4] The approach became progressively more refined in the course of the 19th century and in 1922 the American economist, Irving Fisher, published a monumental work on *The Making of Index Numbers*. One of the motives of this work – and, indeed, one of Fisher's strongest professional interests – was to define a price index whose stability would be the prime objective of monetary policy.

The second revolutionary idea, and perhaps an even more fundamental one, was to recognize that the nature of the inflationary process was radically changed by the introduction of paper money. With the functions of money increasingly being performed by paper instruments, the quantity of such instruments could affect the prices of goods and services. The link between the quantity of gold and its price had been the central interest of earlier monetary commentators. But, as more notes and bills of exchange entered the circulation, economists began to think of a connection between the quantity of all forms of money, both gold and paper, and the price level. The starting-point for their analyses was the crude but serviceable principle that the greater the quantity of paper credit, the higher the price level. By extension, the higher the rate of increase in paper credit, the faster the rate of inflation.

The seminal work on these ideas was *An Inquiry into the Nature and Effects of the Paper Credit of Great Britain* by Henry Thornton, published in 1802. The timing of this great book, five years after the Bank of England's suspension of gold convertibility, was not an accident. Thornton was convinced that the widespread acceptability of paper in payments was an advantage to a country and, in particular, that it helped Britain to face wartime pressures on its economy. 'Paper credit has...been highly important to us. Our former familiarity with it prepared us for the more extended use of it. And our experience of its power of supplying the want of gold in times of difficulty and peril, is a circumstance which...may justly add to the future confidence of the nation.'[5] Nevertheless, Thornton was aware of the dangers inherent in a system of paper credit. He emphasized that an excessive issue of bank notes would lead to rises in the price level, while warning, on the other hand, that sharp contractions of the note issue could cause downturns in economic activity. His advice to the Bank of England was therefore to 'limit the amount of paper issued, and to resort for this purpose, whenever the temptation to borrow is strong, to some effectual principle of restriction; in no case, however, materially to diminish the sum in circulation, but to let it vibrate only within certain limits' and 'to afford a slow and cautious extension of it, as the general trade of the kingdom enlarges itself'.[6]

Here is the kernel of a new approach, the beginnings of the idea of 'monetary policy' or even 'macroeconomic policy'. The guideline for monetary management is no longer stated in terms of a gold price or an exchange rate between paper and a metal. Instead the central bank is understood to have fairly deliberate goals, to stabilize the price level and, as far as possible, to avoid large fluctuations in economic activity. Moreover, it is to achieve these goals by trying to control 'the sum in circulation' or, as we would now say, by regulating the money supply. This way of conducting monetary policy – where the quantity of paper money is the target of central bank action – is clearly quite different from the earlier approach, with its focus on a particular gold price or exchange rate.[7]

Thornton's hint of a new style of monetary regulation was not taken up in his lifetime. On the contrary, the gold standard became established, gained increasing credibility and flourished until the First World War. But after 1918 another phase of intense monetary controversy began. The problem – just as it had been after the Napoleonic Wars – was whether Britain should restore the gold standard at the pre-war parity.

The majority of bankers, politicians and so-called 'practical men' associated the gold standard with the stability and prosperity of the Victorian period. Perhaps without thinking very hard about the issues, they wanted to return to the gold standard. This point of view was expressed officially in the Reports of the Cunliffe Committee, in 1918 and 1919, which said that restoration should occur as soon as possible. However, a small group of economists were sceptical, believing that the success of the gold standard in the 19th century had been largely a fluke and preferring a more deliberate and (as they described it) scientific approach to monetary policy. Their inspiration was the great tradition of *ad hoc* and more or less amateur theorizing on the trade cycle in the 19th century, which had begun with Thornton and was developed in later decades by such authors as Tooke, Overstone, John Stuart Mill, Alfred Marshall, Bagehot and Hartley Withers. The key idea was that fluctuations in demand, output and the price level were driven by changes in business confidence and variations in credit growth.

The foremost sceptic was John Maynard Keynes. In his *Tract on Monetary Reform*, published in 1923, he scorned the gold standard as a 'barbarous relic', pointing out the risk that gold could be kept in line with output only through chance discoveries of the metal. In any case, since Britain held only a small part of the world's gold stock, a return to the pre-war standard would leave it vulnerable to changes in other countries' demand for gold. There was no alternative to managing the currency:

> If providence watched over gold, or if Nature had provided us with a stable standard ready-made, I would not, in an attempt after some slight improvement, hand over the management to the possible weakness or ignorance of boards and governments. But this is not the situation. We have no ready-made standard. Experience has shown that in emergencies ministers of finance cannot be strapped down. And – most important of all – in the modern world of paper currency and bank credit there is no escape from a 'managed' currency, whether we wish it or not; convertibility into gold will not alter the fact that the value of gold itself depends on the policy of the central banks.[8]

The answer, then, was not to go back to a fixed gold price, but to have a 'managed currency'. But how, in more specific terms, should a managed currency work? What objectives should policy-makers have and how should these objectives be achieved?

Keynes was clear about what he wanted. He was against not only the gold standard, but also a fixed exchange rate between the pound and the dollar, since this would leave Britain too much at the mercy of the American Federal Reserve. Although he recognized that 'an internal standard, so regulated as to maintain stability in an index number of prices, is a difficult scientific innovation never yet put into practice', that was nevertheless the ideal he favoured: 'I regard the stability of prices, credit and employment as of paramount importance.'[9] He referred with enthusiasm to Irving Fisher, as the pioneer of price stability as against exchange stability.

The *Tract* also devoted much space to the principles and practice of monetary management. In Keynes's view, 'The internal price level is mainly determined by the amount of credit created by the banks, chiefly the Big Five' and 'The amount of credit...is in its turn roughly measured by the volume of the banks' deposits'.[10] There is a certain lack of clarity in these remarks, since it is not obvious whether it is the assets or liabilities side of banks' balance sheets that Keynes wanted to emphasize. But, if we agree that new lending creates deposits, this would be no great problem.

The discussion of the mechanics of monetary control was also rather confusing. Keynes seemed to oscillate between two views, one that the size of banks' balance sheets is a multiple of their cash reserves, which can be determined by open-market operations, and another that 'adequate control' over an important part of banks' assets (i.e., their advances and bills) 'can be obtained by varying the price charged, that is to say the bank rate'.[11]

But the technical complications should not be allowed to hide the essence of the 'managed currency' as Keynes envisaged it. The ultimate target should be the stability of the domestic price level, not the gold price or the exchange rate; and that target should be attained by managing the growth rate of banks' balance sheets, through interest rate variations if appropriate. It would be a matter of comparative indifference in practical terms whether the intermediate target here were taken as bank credit, bank deposits or a broad measure of the money supply, although the relevant pages in the *Tract* are a little muddled and ambiguous on the subject. It might also not add much to say that Keynes's managed currency had a certain amount in common with latter-day 'monetarism', since that begs the question of how monetarism should be defined.[12] But there cannot be much doubt that Keynes disliked having a fixed exchange rate as a policy target and paid close attention to credit and monetary variables when assessing economic prospects. That, on a careful reading of the texts, should be uncontroversial.

At first Keynes's proposals for a managed currency got nowhere. Britain returned to the gold standard in 1925, with unhappy consequences for economic activity and employment, just as Keynes had expected. But after the departure from the gold standard in 1931, and the subsequent disintegration of international monetary order, Britain willy-nilly had the managed currency that Keynes advocated. Domestic objectives, not the gold price or the exchange rate, dominated policy-making in the 1930s. Keynes never changed his mind on the relative priority of external and internal objectives. In a speech on the proposed International Monetary Fund in the House of Lords in May 1943, he said:

> We are determined that, in future, the external value of sterling shall conform to its internal value, as set by our own domestic policies, and not the other way round. Secondly, we intend to keep control of our domestic rate of interest. Thirdly, whilst we intend to prevent inflation at home, we will not accept deflation at the dictates of influences from outside. In other words, we abjure the instruments of bank rate and credit contraction operating through an increase in unemployment as a means of forcing our domestic economy into line with external factors. I hope your Lordships will trust me not to have turned my back on all I have fought for. To establish these three principles which I have just stated has been my main task for the last 20 years.[13]

It would be natural to assume that the post-war 'Keynesian Revolution' would reflect the implementation of a macroeconomic policy directed to domestic priorities. That, indeed, is how some of the hagiographers have seen it. They have claimed that official policy in the first 25 years after 1945 was dominated by the aim of maintaining the domestic goal of full employment. Since a closer approximation to full employment was achieved in these years than before or since, that may seem a reasonable assertion. However, monetary policy was certainly not organized in the way that Keynes had recommended in the *Tract on Monetary Reform* or in his 1943 speech to the House of Lords.

On the contrary, the lodestar for interest rate decisions was the pound's exchange rate against the dollar. For almost 20 years, from 1949 to 1967, the pound was constrained by the Bretton Woods regime of fixed exchange rates and kept close to its central parity of $2.80. It was true that sterling's explicit link with gold had been broken. But the pound was tied to the dollar and the dollar was fixed to gold at the official price of $35 an ounce. Britain may no longer have been on the gold standard, but sterling maintained a constant, if indirect and perhaps rather clandestine, relationship to gold for many years after Keynes's death. As we shall see, the final break came only in the early 1970s.

In these years of fixed exchange rates, academic and official interest in monetary policy dwindled steadily. Indeed, it could be argued that Keynes's *General Theory* was both the climax and the terminus of the 19th-century tradition of trade cycle theorizing, in which credit and money had been so important. Afterwards British economists downplayed the significance of credit and money in macroeconomic fluctuations and inflation. There were at least three reasons for the new neglect of monetary analysis.

The first was that Keynes himself had been moving in this direction late in his career. At the time of the *Tract* he believed, with few qualifications, in the ability of interest rate changes to manage the currency and so to achieve desired macroeconomic outcomes. But in the 1930s very low interest rates were unable to prevent the persistence of high unemployment. One task of *The General Theory* was therefore to identify those circumstances in which low interest rates would be ineffective in stimulating investment and encouraging employment. He suggested that there could be a situation, a so-called 'liquidity trap', where people were so shell-shocked by the deflationary environment around them that they could not be induced to move out of cash into other assets. The deflation could not be countered by central bank action to cut interest rates. Keynes went on to advocate that the Government take direct responsibility for investment in order to offset the possible impotence of interest rates. In his words, 'it seems unlikely that the influence of banking policy on the rate of interest will be sufficient by itself to determine an optimum rate of investment. I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment.'[14]

This argument – linking the alleged ineffectiveness of monetary policy to wholesale nationalization – was one of the most influential and important in Britain's post-war political economy. In the 1950s and 1960s it gave economists a rationale both for a modishly left-wing sympathy towards state ownership, and for suppressing the teaching of monetary economics. It is far from clear that this is altogether what Keynes wanted. As the *Tract* made clear, a managed currency would have required a strong and detailed understanding of monetary institutions. Even *The General Theory* says far more about interest rates and monetary policy than it does about nationalization. But that Keynes contributed to the diminishing of monetary economics, even of his own great work in the area, cannot be denied.

The second reason for the growing indifference towards monetary policy was that for almost 20 years, from 1932 to 1951, interest rates were virtually constant. Bank rate was held at 2 per cent throughout the period, apart from a brief (and insignificant) interruption at the beginning of the Second World War. Since hardly any interest rate changes occurred, there seemed little practical benefit in analysing the results of such changes. As interest rates had clearly not been much of an influence on business conditions for such a long period, economists thought they could ignore the possibility that interest rates might become important in the future. Even in the 1950s and 1960s interest rate variations were small for most of the time. In British universities theorizing about interest rates – and so about monetary policy in the large – became moribund.

Thirdly, during the War, and for many years afterwards, the British economy was subject to a wide variety of administrative controls of one sort or another. Rationing, conscription and the requisitioning of resources for the armed forces had a clear military function and could not be accepted for long in peacetime. But other restrictions – such as exchange controls, tight planning controls on building materials, controls on new issues and so on – survived long after the War had ended. Governments thought that the economy could be run better by relaxing or tightening these controls than by relaxing or tightening monetary policy. Their ideal was not Keynes's 'managed currency', which would have been fully compatible with market capitalism, but a semi-socialist mixed economy with extensive economic planning. In the late 1940s and 1950s the majority of British economists undoubtedly welcomed the retention of controls and a commitment to planning.

If this seems a strong statement, it needs to be emphasized that 1963 saw the publication of an official document on *Conditions for Faster Growth*, which enjoined a more active government role in industry, with the full blessing of the then Conservative Government. In 1964 the Department of Economic Affairs, with even more interventionist objectives, was established by the newly-elected Labour Government of Mr Harold Wilson. Mr Wilson had previously been an economics don at Oxford University and his Government introduced large numbers of academic economists into Whitehall. It is a fair comment that none of these economists was much bothered by monetary policy, but all of them were fascinated – in one way or another – by the potential of 'economic planning'. One kind of control was particularly important in the monetary field; direct quantitative restrictions on bank lending. With credit kept under control by such means, the role of interest rates in macroeconomic policy was rarely discussed.

By the late 1960s hardly any British economist thought that interest rates could or should be varied to influence domestic economic variables. The immensely influential National Institute of Economic and Social Research never mentioned the money supply, on any of its definitions, in its *Reviews*. It only occasionally referred to credit variables and even then the focus was on hire purchase rather than mortgage lending. Whole volumes were written on macroeconomic policy with hardly any comment on money. For example, in a book on *The Labour Government's Economic Record: 1964–70*, edited by Wilfred Beckerman and published in 1972, there was only one index reference to 'the money supply', whereas there were 17 to the National Economic Development Council, 21 to the National Board for Prices and Incomes, and no less than 41 to the National Plan and 'Planning'.[15] In the early 1970s the Cambridge Economic Policy Group was established with the support of such well-known figures as Lord Kaldor and Professor Robert Neild. The much-publicized recommendations in its *Economic Policy Reviews* almost never contained remarks on monetary policy, unless they were dismissive. According to one article in its March 1977 issue, 'In our view there is no justification at all for incorporating a target for domestic credit expansion in official economic policy'.[16]

An extraordinary somersault had been accomplished. Whereas in 1923 the managed currency favoured by Keynes had seen the restraint over credit growth as central to monetary regulation, in the 1970s Cambridge economists and, indeed, most economists in British universities saw no merit in targets for credit and monetary growth. Many of them saw no point in analysing credit or monetary trends at all. Inflation was better understood, in their view, by watching the behaviour of wages and the exchange rate. The irony was heightened by the readiness of staff at the National Institute and the Department of Applied Economics to adopt the label of 'Keynesian'. These economists did not seem to appreciate that their ways of thinking were a betrayal of Keynes's own ideas. Instead their loyalty was to second-rate textbooks which regurgitated, for decades after they had lost any practical relevance, the dangers of the liquidity trap and interest-inelastic investment.

The questions arise, 'how then was the Keynesian Revolution accomplished?' and 'what were the techniques of economic policy which gave the British economy its stability in the first 25 years after the War?'. If Keynes's managed currency was forgotten by most British economists, who or what should be awarded the medals for the relative financial tranquillity of the immediate post-war decades? It is here that we come to a yet greater paradox. There can be hardly any doubt that the key economic constraint on British governments in those years was the avoidance of sterling devaluation. Whenever policy-makers embarked on unduly stimulatory policies, the pound would come under downward pressure on the foreign exchanges and the resulting 'sterling crisis' would oblige the Government to think again. It was the succession of sterling crises, and the need to check them by credit restrictions and/or higher interest rates, which kept inflation under control.

Since the pound/dollar rate was the lynchpin of the system, American monetary policy determined British monetary policy. Fortunately, American monetary policy in the first 25 years after the War was a model of anti-inflationary prudence and counter-cyclical stability. The outcome was that 'the instruments of bank rate and credit contraction', dictated from outside Britain, not only forced the domestic economy into line with external factors, but also delivered the full employment, low inflation and cyclical moderation of the post-war period. The exchange rate played a benign role in British macroeconomic management. Keynes's suspicion of international financial influences on monetary policy-making proved misplaced.

Before we discuss what happened after the pound/dollar link was broken, there is another irony to be mentioned. American monetary policy in the first two decades after the Second World War was unquestionably a success compared with other periods, both before and after. But why? Many of the good decisions can be attributed, of course, to the professionalism of the staff of the Federal Reserve System and the budgetary restraint of Presidents Truman and Eisenhower. But there was another factor at work. One of the reasons for the Federal Reserve's tightening of monetary policy in the late 1950s was to protect the dollar on the foreign exchanges and, in particular, to preserve the $35-an-ounce gold price. Gold was still the bedrock of the Bretton Woods system.

Does it follow from this argument that the Keynesian Revolution was not the result of the discretionary demand management and fiscal fine-tuning so much praised in the textbooks? Can the happy stability of the 1950s and 1960s instead be seen to rest on two fixed exchange rates, the $2.80 rate between the pound and the dollar, and the $35-an-ounce official price of gold? Was the prosperity of that period due not to the final abandonment of the 'barbarous relic', but rather to the world's last inarticulate clinging to a gold anchor?

The two exchange rates were scrapped in the early 1970s. In August 1971 the American government suspended the dollar's convertibility into gold, because of the rapid decline in its gold reserve, while in June 1972 the pound left the embryonic European 'currency snake', after belonging for less than two months. Sterling's exit from the snake was to inaugurate a period of deliberate floating. We have already seen that one of the key preconditions for wise domestic monetary management – namely, a deep and extensive understanding of monetary economics among professional economists – no longer existed in Britain. Very few academic economists were interested in the pre-Keynesian tradition of trade cycle analysis, the acknowledged classics of monetary theory or contemporary monetary institutions. As a result there was no longer any heavy-weight intellectual obstacle to rapid domestic credit and monetary expansion. The external barrier to inflationary policies, which had been imposed by a fixed exchange rate for over 20 years, was now also removed.

The scene had been set for the Barber boom of the early 1970s. There is little point in describing that boom in detail once more. Suffice it to say that credit and monetary growth were extraordinarily fast by any previous standards. But the overwhelming majority of British economists were not worried by the potential inflationary repercussions and celebrated the very rapid output growth from mid-1972 to mid-1973. (The level of GDP, at factor cost, expenditure-based, was 8.6 per cent higher in real terms in the middle two quarters of 1973 than in the middle two quarters of 1972. Domestic demand grew even faster.) On 7 May 1973 Mr Peter Jay, the Economics Editor of *The Times*, wrote an isolated article entitled 'The boom that must go bust'. *The National Institute Economic Review* judged in the same month that, 'there is no reason why the present boom should either bust or have to be busted'. The *Review* was undoubtedly representative of professional economic opinion.

Later it became uncontroversial that something had gone horribly wrong. The current account deficit on the balance of payments was a post-war record in 1974 and in early 1975 the inflation rate hit 25 per cent. In 1976 Mr Healey, the Chancellor of the Exchequer, introduced money supply targets in order to establish a monetary framework for reducing inflation. These targets opened up the possibility that interest rate changes might be determined by the behaviour of monetary growth rather than by the exchange rate. The targets were expressed in terms of broad money, which is dominated by bank deposits. Broad money targets were to survive for almost a decade, until they were abandoned in late 1985. Although the need for some kind of money target, or a so-called 'nominal framework', was widely accepted, it would be wrong to think that academic economists were much involved in its introduction. On the contrary, the case for money targets was urged most vigorously in the financial press, particularly in *The Times*.[17]

The heyday of broad money targets was in early 1980, only a few months after the Thatcher Government had come to power. At about the same time as the announcement of the Medium-Term Financial Strategy in the Budget of that year, the Government published a Green Paper on *Monetary Control*. It set out the rationale and the method of operation of broad money targets. In its words, 'The Government's policy is...to sustain downward pressure on prices by a progressive reduction of the rate of growth of the money supply over a period of years'. (This statement clearly implied that monetary growth caused inflation.) The reduction in monetary growth was to be accomplished partly by curbing public sector borrowing from the banks (which depended on the total amount of public sector borrowing minus sales of public sector debt to non-banks) and partly by discouraging bank lending to the private sector. Although sceptical that the private sector's demand for bank finance was responsive to interest rates in the short run, the Green Paper's aversion to quantitative credit restrictions left interest rates as the only instrument available to regulate credit expansion. It followed that interest rates were to be raised if monetary growth was ahead of target, but lowered if it was behind target.

In effect, the Green Paper on *Monetary Control* set out an approach to monetary policy which – in its emphasis on the credit counterparts to deposit growth and its focus on domestic rather than external objectives – had clear similarities to Keynes's scheme for a 'managed currency' in the *Tract on Monetary Reform*. Moreover, in a number of speeches Sir Geoffrey Howe, the then Chancellor of the Exchequer, argued that the exchange rate had to be allowed to float if the Government was to have the freedom over interest rates required to achieve its money supply targets. Interest rates were to be governed by domestic criteria, with a view to attaining price stability, rather than by the exchange rate.

The question of what happened to broad money targets, and the system of financial control associated with them, is not much debated now. There is hardly time here to provide a detailed history of British economic policy in the early 1980s.[18] However, certain salient points are essential to the argument of this lecture. In late 1980 monetary growth ran far ahead of target, obliging the Government to keep interest rates high despite a deepening industrial recession. The exchange rate rose to remarkable levels and by early 1981 was clearly over-valued. Most economists, appalled by this turn of events, urged the Government to ease the deflationary pressures. They wanted it to pay more attention on the exchange rate and less (or none at all) to domestic monetary trends.

But in the Budget of March 1981 the Government raised taxes in order to keep public sector borrowing within the targets stated in the Medium-Term Financial Strategy. Two professors of economics at Cambridge – Frank Hahn and Robert Neild – organized a letter to *The Times* from 364 economists at British universities, which claimed that the Government's policies 'will deepen the depression, erode the industrial base of the economy and threaten its social and political stability'. They also warned that, without any change in policy, the economy would never recover. In their view, a permanent slump was in prospect. The letter from the 364 was the most emphatic possible denunciation of the attempt to manage the economy by reducing and stabilizing the rate of growth of the money stock.

The 364 economists were wrong. The British economy began to recover only a few months after it had been written. But to assume therefore that the letter had no influence would be a very serious mistake. It accurately reflected the overwhelming consensus of British academic opinion. Whenever officials from the Treasury or the Bank of England took part in academic conferences, both in these years and later, they were subjected to a barrage of scorn for obeying their political masters and implementing money supply targets. The constant sniping undoubtedly took its toll. Perhaps even more important, there was only limited academic interest in the technical operation of the system of monetary management actually at work in the early 1980s. An enormous literature developed on the merits of an alternative system of monetary base control, but this was not strictly relevant to the day-to-day problems facing the Treasury and the Bank of England. For example, whereas City newsletters and circulars discussed the problem of 'overfunding' in some detail in 1984 and 1985, it received hardly any comment in academic journals. The reason was straightforward. There were very few university economists who respected what the Government was trying to do, namely, to combat inflation by reducing the rate of broad money growth.

So when broad money targets were scrapped in late 1985 there was general relief in university economics departments that, at long last, the Government had returned to sanity. 'Sanity' was to be understood, in their view, as the former style of macroeconomic management with interest rate changes determined largely by the pound's fortunes on the foreign exchanges. The Government nevertheless retained monetary targets, at least in form. Few people outside the Treasury took these targets, which came to be expressed in terms of narrow money rather than broad money, all that seriously. City commentators noted that the quantity of notes and coin, which is the main constituent of the officially-favoured narrow money measure, M0, is determined by the current economic situation, rather than being a determinant of the future behaviour of demand and output. It followed from this that narrow money could not have any causal role in the inflationary process.

Keynes had, in fact, made precisely the same point in the *Tract* over 60 years earlier. He remarked that, in the circumstances of the early 1920s, 'Cash, in the form of bank and currency notes, is supplied *ad libitum*, i.e. in such quantities as are called for by the amount of credit created and the internal price level established'. It followed that:

> ...the tendency of today – rightly I think – is to watch and control the creation of credit and to let the creation of currency follow suit, rather than, as formerly, to watch and control the creation of currency and to let the creation of credit follow suit.[19]

Keynes's preference for watching credit rather than currency was a by-product of his aversion to gold. Under the Bank Charter Act of 1844 the Bank of England had been required to restrict the fiduciary note issue (i.e., that part of the note issue not backed by gold holdings in its Issue Department) and gold had remained, in principle, the ultimate regulator of the quantity of notes. But Keynes wanted 'the volume of paper money' (i.e., notes) to be 'consequential...on the state of trade and employment, bank rate policy and Treasury bill policy', so that the 'governors of the system would be bank rate and Treasury bill policy'. He therefore made 'the proposal – which may seem, but should not be, shocking – of separating entirely the gold reserve from the note issue'. If this were done, monetary policy would be free to serve the Government's proper objectives, which in his view were, of course, the 'stability of trade, prices and employment'.[20]

As Keynes would have expected, the Treasury's preoccupation with M0 since the mid-1980s has turned out to be unfortunate. Because it is an indicator rather than a cause of inflation, it has failed abjectly to give advance warning of future inflationary trouble. The role of two self-styled 'monetarist' advisers to the Government, Sir Alan Walters and Professor Patrick Minford, in this failure needs to be mentioned. In the early 1980s they were both critical of the importance attached to credit and broad money, and advocated that narrow money be given a more prominent role. Conservative politicians did not trust the great mass of left-leaning British academic economists, but they did consult the ideologically sound Walters and Minford. The advice of these two economists was therefore instrumental in undermining the framework of monetary management which was in existence *before* Mrs Thatcher and her Treasury ministers started listening to them.

In his book *Britain's Economic Renaissance* Sir Alan Walters observed that it is money in the 'transactions sense that plays the central role in the theoretical structure and the proposition of monetarism'. He gives paying a bus fare as an example of the kind of transaction he has in mind, and distinguishes this sharply from 'credit'. (To quote, 'You pay your bus fare with money; you do not offer the fare collector a promissory note.'[21]) But, whatever the role of money in this 'transactions sense' in either Walters's or the British Government's understanding of monetary economics during the 1980s, it had actually been superseded several decades earlier by the leaders of economic thought.

The whole point of Keynes's critique of classical monetary theory was that it overlooked the position of money in a portfolio of assets. If the demand to hold money rose for reasons of increased liquidity preference, the demand to buy goods and services would fall. In Keynes's extreme case of the liquidity trap, the ability of money's non-transactions role to expand indefinitely could become the jinx of the capitalist system. Hicks also saw the need to locate money in a framework of portfolio choice, proposing that the principle of marginal maximization should be borrowed from microeconomics.[22] Friedman's attempt to restate the quantity theory related the demand for money to wealth, as well as income and other variables.[23] Walters's neglect of these basic ideas, and their many implications, is further testimony to British economists' lack of insight into the role of credit and money in macroeconomic fluctuations.

Walters and Minford undoubtedly agreed with the majority of Keynesian economists in British universities that Nigel Lawson, as Chancellor of the Exchequer, was correct to abandon broad money targets in late 1985. They were part of the extensive coalition of academic economists which regarded the monitoring of trends in credit and broad money as unnecessary. In retrospect, it may surprise laymen that this coalition was largely silent about the practical outcome of the currency management of the decade from 1976 to 1985.

In 1976 Britain had one of the highest inflation rates in the industrial world, a universally despised currency, a budget deficit of almost 10 per cent of gross domestic product and an associated long-term problem of fiscal unsustainability. Moreover, after the most violent cyclical upheaval of the post-war period, there was pervasive private sector distrust of the Government's ability to deliver stable, non-inflationary growth. By contrast, in 1985 British inflation had been reduced to a trend rate of about 5 per cent, sterling was one of the most respected currencies in international finance, public debt was falling as a share of GDP and the economy had enjoyed four years of steady growth more or less in line with its trend rate of 2½ per cent a year. Whatever the academic economics profession thought about the matter, there can surely be little question that the decade of broad money targets had gone far to solving Britain's macroeconomic problems. If Keynes had still been alive, he would surely have been pleased to see the idea of a 'managed currency' so amply vindicated.

The sequence of events after the scrapping of broad money targets in 1985 had clear similarities to that after the abandonment of a fixed exchange rate in 1971 and 1972, except that the boom evolved somewhat more slowly. The focus of monetary policy again became the exchange rate. In late 1985 and early 1986, with the dollar falling rapidly on the foreign exchanges, the exchange rate did not signal a need for higher interest rates. The pound itself fell heavily in late 1986, particularly against the Deutschmark, but this was interpreted as the result of lower oil prices.

From March 1987 to March 1988 sterling was deliberately kept in a band of 2.95 to 3 against the Deutschmark. However, with German interest rates so much beneath those in Britain, this external factor argued for an easing, rather than a tightening, of domestic monetary policy. In effect, from late 1985 to early 1988 there was no meaningful external constraint on domestic monetary policy. The external environment was as permissive to monetary expansion as that which had prevailed after the ending of the dollar's convertibility into gold in August 1971.

Interest rates fell, credit growth accelerated and the growth rate of broad money – no longer dampened by overfunding – also increased. By late 1986 the economy was undoubtedly growing at an above-trend rate. By mid-1987 it was in a full-scale boom. The mood of businessmen, particularly get-rich-quick property speculators, was an almost exact replica of that in the Barber boom 15 years earlier. Indeed, the bank lending and broad money numbers themselves were remarkably similar. But did British economists, of either the Keynesian or narrow money schools, object? Did they warn that the boom would inevitably end in a worse payments deficit, a rising inflation rate and a need for a sharp cyclical downturn to offset the excesses of the boom? Sadly, it is hardly necessary to answer these questions. As is well known, the overwhelming majority of them – in the universities, the official policy-making machine and the City – raised no objections and issued no warnings. On the contrary, the consensus macroeconomic forecast in 1986, 1987 and early 1988 was that the economy was about to slow down to a trend rate of output growth without any rise in interest rates. All of the so-called leading forecasting bodies – the London Business School, the National Institute, the Treasury and their many imitators – believed that the inflation rate in the late 1980s would be similar to, or lower than, that in the mid-1980s.[24]

Without an appropriately valued fixed exchange rate to guide interest rate decisions, academic economists were very casual about the medium-term implications of grossly unsustainable domestic monetary trends. The indifference of academic opinion gave economic advisers in the civil service and the Bank of England a pretext for not alerting their political masters to the foolishness of policy.[25] The Lawson boom of the late 1980s – like the Barber boom of the early 1970s – was the result of British economists' lack of recognition of how credit and money affect demand, output, employment and inflation. It was due, above all, to a great vacuum in intellectual understanding. The Lawson boom has been followed, like the Barber boom, by a sharp rise in inflation and a recession. It has wrecked the greatest asset the

Thatcher Government had in the general elections of 1983 and 1987, a high reputation for managerial competence in running the economy and controlling inflation. These consequences can be fairly described as the revenge of the 364.

The argument of this lecture is that there is no excuse for the vacuum in intellectual understanding. Keynes set out over 60 years ago in his *Tract on Monetary Reform* how a system of monetary policy focused on domestic objectives should work. The key intermediate indicators in the *Tract* were the growth rates of credit and bank deposits (or, as we would now say, broad money), just as they were in the original Medium-Term Financial Strategy declared in 1980. Keynes's agenda in the *Tract* should be seen as the logical culmination of many decades of analysis and theorizing about the trade cycle. This tradition of British monetary economics began with Thornton and Ricardo, and proceeded through (among others) John Stuart Mill, Bagehot and Alfred Marshall, to Keynes's contemporaries, Dennis Robertson and Ralph Hawtrey. But it withered and died in the 1940s and 1950s. It suffered, most of all, from the deliberate and ideologically-motivated neglect of an economics profession far more interested in planning how a semi-socialist economy might work in the future than in understanding how a free-market economy had operated in the past.

Perhaps this lecture has been too nostalgic and backward-looking. Perhaps it should have been less about 'what might have been' and more about 'what we have to do now'. The mainstream academic economist would probably reply that its central argument has been made redundant by British entry into the exchange rate mechanism of the European Monetary System. Surely, he would claim, from here on we can rely on the German efficiency in monetary management to remedy British inefficiency in inflation control. That may or may not be right as a statement about the real world. But what a strange conclusion to the debate! Having finally unshackled themselves from gold in the early 1970s and made a complete hash of domestic monetary management in the subsequent 20 years, the British economics establishment now warms to the embrace of the Deutsche Bundesbank.[26]

It should be easier now to identify the 'defunct economists' who have made the internal value of the pound conform to its external value, lost us control of our interest rates, and made us subject to inflation and deflation dictated from outside. The indictment relates not to one or two hare-brained theorists with a Rasputin-like influence over certain 'madmen in authority', but to an entire profession, the profession of academic economists in this country. We have to ask them, with the British Government actively contemplating proposals which would mean the end of the pound sterling as an independent currency, 'was this how the "Keynesian Revolution" was supposed to end?'.

Notes

1. D. Moggridge and E. Johnson (eds), *The Collected Writings of John Maynard Keynes*, Vol. VII: *The General Theory of Employment, Interest and Money* (London: Macmillan, 1964, originally published 1936), p. 383.
2. V. H. Hewitt and J. M. Keyworth, *As Good as Gold: 300 Years of British Bank Note Design* (London: British Museum Publications in association with the Bank of England, 1987), p. 27.
3. C. A. E. Goodhart, *The Business of Banking, 1891–1914* (London: Weidenfeld and Nicolson, 1972), pp. 195–208.
4. J. A. Schumpeter, *History of Economic Analysis* (London: George Allen & Unwin, 1954), p. 526.
5. H. Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (Fairfield: August M. Kelly, 1978, reprint of version edited by F. A. v. Hayek and published by George Allen & Unwin in 1939; originally published 1802), p. 276.
6. Thornton, *Paper Credit*, p. 259.
7. I am not suggesting that Thornton was opposed to the gold standard. In fact, his 1811 contributions to two House of Commons debates show that he was strongly in favour of it. See *Paper Credit*, p. 346. I am claiming only that his writings hinted at the possibility of a different approach.
8. D. Moggridge and E. Johnson (eds), *The Collected Writings of John Maynard Keynes:* Vol. IV, *A Tract on Monetary Reform* (London and Basingstoke: Macmillan, 1971, originally published 1923), p. 136.
9. Moggridge and Johnson (eds), *Keynes: Tract*, pp. 126–7 and p. 140.
10. Moggridge and Johnson (eds), *Keynes: Tract*, pp. 141–2.
11. Moggridge and Johnson (eds), *Keynes: Tract*, pp. 142–5.
12. I discussed some of the definitional problems in my contribution 'British and American monetarism compared', pp. 38–72, in R. Hill (ed.), *Keynes, Money and Monetarism* (London and Basingstoke: Macmillan, 1989). (This paper is reprinted in this volume as 'Keynes, British monetarism and American monetarism', on pp. 209–34.)
13. Lord Kahn, *On Re-reading Keynes* (London: Oxford University Press for the British Academy, 1975), pp. 22–3.
14. Moggridge and Johnson (eds), *Keynes: General Theory*, p. 378.
15. W. Beckerman (ed.), The *Labour Government's Economic Record: 1964–70* (London: Duckworth, 1972), pp. 340–41.
16. F. Cripps and M. Fetherston, 'The role of monetary policy in economic management' in *Economic Policy Review*, March 1977 (Cambridge: University of Cambridge, Department of Applied Economics), p. 54.
17. T. Congdon, *Monetarism: an Essay in Definition* (London: Centre for Policy Studies, 1978), pp. 11–13.
18. See my pamphlet, *Monetarism Lost* (London: Centre for Policy Studies, 1989), for a description of the evolution of monetary policy in the 1980s.
19. Moggridge and Johnson (eds), *Keynes: Tract*, pp. 145–6.
20. Moggridge and Johnson (eds), *Keynes: Tract*, pp. 153–4.
21. A. Walters, Britain's *Economic Renaissance* (New York: Oxford University Press, 1986), pp. 116–7.
22. This is a reference to Sir John Hicks's famous paper on 'A suggestion for simplifying the theory of money', written before Keynes's *General Theory.*
23. Milton Friedman's 'The quantity theory of money: a restatement', a paper originally published in 1956, said that 'the demand for money is a special topic in the theory of capital'. It was the theoretical launching-pad of the so-called 'monetarist counter-revolution'.
24. Professor Patrick Minford of Liverpool University argued late into the boom that slow growth of M0 presaged an early return to 3 per cent inflation. This was not the first time that Minford had been disastrously wrong by using M0 for forecasting purposes. He warned in late 1985 that, because of slow M0 growth, 'we now have the tightest

monetary policy we have ever had' and maintained that 'a stalling in the growth rate, unless immediate action is taken to reduce interest rates, is now increasingly likely'. See p. 45 of J. Bruce-Gardyne and others, *Whither Monetarism?* (London: Centre for Policy Studies, 1985). These remarks were made on the eve of the strongest boom for 15 years.

25. According to one former civil servant, even Mr Denis Healey – who had been responsible for introducing broad money targets – did not really believe in them. 'To ascribe paternity for the MTFS to Denis Healey seems to me to be going too far. He was described at the time as an unbelieving monetarist, meaning that he adopted monetary targets only with a view to inspiring confidence in the financial world, which did believe in them.' L. Pliatzky, *The Treasury under Mrs Thatcher* (Oxford: Basil Blackwell, 1989), p. 122.
26. In any case, other European countries do not suffer the illusion that full membership of the EMS specifies a complete anti-inflationary policy. They also follow domestic financial targets stated in terms of credit and/or broad money. In their regard for narrow money, it is British economic policy-makers and their advisers who have become idiosyncratic.