RESERVE BANK OF INDIA

Chintaman Deshmúkh Memorial Lectures

THE FAILURE OF MONETARISM

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THE FAILURE OF MONETARISM

Mr. Chairman, Mr. Governor, Ladies and Gentlemen,

To begin I would first like to say how grateful I am for this invitation, which gave me an opportunity to come to India again, the country, which my wife and I have both learnt to love so much when we stayed here 25 years ago, first for a summer Seminar (organised by the University of Bombay) in Poona, and then in the following winter in Delhi for working out a scheme for the reform of Indian taxation. This was a time when we made many lifelong friends with some of whom we remained in frequent contact ever since, while others we met occasionally as opportunity served. One of these is Professor V. K. R. V. Rao whom I saw frequently when we were in India and on a few occasions when he visited England. His book on the national income of British India, published as early as 1940, was an invaluable aid in my own work in evaluating India's taxable capacity. I am delighted to meet him now—so little changed—the same tall and gaunt figure with twinkling eyes; his mental powers as sharp as ever, as shown by his latest highly praised book on the 1950-80 period, published last year. There is no need to add that I feel greatly honoured that he accepted the invitation to chair this meeting.

I also feel greatly honoured to have been asked to give the first of the Chintaman Deshmukh Memorial Lectures, which I understand the Reserve Bank of India intends to make an annual event from now on.

There are at least two reasons why I am glad to give a lecture in honour of the memory of Chintaman Deshmukh. One of them is the chaotic situation in the world economy, caused by foolish financial and currency policies at least as much as by any more fundamental, structural causes, and this is the kind of situation in the analysis of which Deshmukh would have excelled—he would have found it an intellectual challenge. The other is that he must have been rightly proud of India's achievement and proud of his own role in having been one of the few who played a critical part in laying the groundwork in the first few years after independence. India succeeded by a steady and cautious policy of economic expansion, in spite of the

difficulties caused by rapid population growth, to make remarkable and steady progress both in agriculture and in industry; and she has resisted the temptations offered by international private lenders on attractive-looking terms which have landed the countries which came to depend on them in the most acute difficulties when all of a sudden interest rates soared to unprecedented levels in consequence of the new economic policies pursued by the United States. As a result of these events a number of countries have been unable to meet existing financial commitments without further borrowing and thereby got into fearful difficulties. These cautious and sober policies kept India out of trouble when most of the countries of Latin America, and a large number of others were forced, by financial pressure exercised through a consortium of bankers or through the International Monetary Fund, to contract their economies, causing a sudden halt to the process of investment and enforcing a reduction in the standard of living of their working populations.

My lecture today will mainly be devoted to an analysis of how this situation came about as a result of the triumph of foolish ideas in America and also, though this is far less important in a world context, in Britain. But before I begin I should like to say a few words about the particular blend of Indian and English culture of which C. D. Deshmukh was such a distinguished exponent. The British Raj—whatever one may think of it in other respects—was a remarkable administrative construction. It made the Indian sub-continent into a single country, tied together by uniform laws and uniform rules and standards of administration, whilst preserving the variety of local customs and languages—held together by an administrative superstructure which proved strong enough and resilient enough to preserve India as an entity (apart from the single though very important exception of Pakistan) after the unifying force of the foreign occupying power was removed. India became independent with a federal constitution run by a multitude of freely elected assemblies but with an overriding national consciousness. It is to Britain's credit of having done so much to create modern India by preparing the country for independence—through the establishment of a network of higher educational institutions for the infusion of western science and technology; and through a system of selection for the higher grade administrative posts by competitive examinations

which enabled a steadily rising proportion of such posts to be filled by Indians with a Western education—an education acquired partly in India and partly in England. C. D. Deshmukh was one of the many who were educated here in Bombay and afterwards in Cambridge, and came out top both in the Cambridge Tripos examination in the Natural Sciences and in the joint Home and Indian Civil Services examination in London in 1918. I am proud that my own University, Cambridge, trained so many of the leading figures of independent India, from Pandit Nehru to C. D. Deshmukh, P. C. Mahalanobis, our Chairman today Dr. V. K. R. V. Rao, as well as the present Governor Dr. Manmohan Singh and many others. Indeed, one of the things the first Indian Governor, C. D. Deshmukh and the present Governor have in common is that they were both on the top of the firsts of their year in the Cambridge Tripos examination. (I can vouch for the latter since I was Dr. Singh's Examiner in Part II of the Tripos).

C. D. Deshmukh is an ideal example of Anglo-Indian culture, combining imagination, probity, objectivity, social conscience, tolerance, with the grasp of a first rate highly trained mind. He was responsible as Minister of Finance, for the invitation extended to me by the Indian Statistical Institute of which he was the Chairman to come to India to examine the case for the introduction of a wealth tax and a tax on capital gains(1). I accepted subject to the proviso that I would be free to look at the direct tax system, both on persons and on businesses, as a whole. I came to Delhi at the beginning of January 1956, and with generous official help and assistance, was able to submit my report on March 30th. Soon afterwards Deshmukh resigned his office and retired from politics. He then began a second distinguished career as Chairman of the University Grants Commission and later as Vice-Chancellor of Delhi University with academic honours which included, I am pleased to say, Honorary Fellowship of Jesus College, Cambridge just as his predecessor as Vice-Chancellor, Dr. V. K. R. V. Rao, became an Honorary Fellow of Conville and Caius College; while the present Governor is an Honorary Fellow of St John's.

(1) As recorded in his autobiography (*The Course of My Life*, New Delhi, 1974, pp. 189-190). As Deshmukh explains there, he preferred to invite me unofficially (in his capacity as Chairman of the Indian Statistical Institute, and not as Minister of Finance) "to avoid official red tape"; and possibly I suppose, some opposition by his Ministerial colleagues.

His successor, Mr. T. T. Krishnamachari, introduced all the new taxes I proposed in his supplementary Budget of September 1956 and in his Budget of 1957, though he could only get them through the Lok Sabha after a long fight and in a much emasculated form. As Deshmukh records in his autobiography(1), an essential part of my scheme was a large reduction in the *rates* of taxation—with a maximum marginal rate of income tax of 45 per cent—so that the part of the recommendations confined to the introduction of new taxes was contrary to the "concept and spirit" of my scheme. He could have added that an even more important omission concerned the recommendation for a single comprehensive tax return and an automatic reporting system which would have made tax evasion—which I estimated at a very high figure—far more difficult.

However, I must not spend any more time on reminiscences as there would be no time left for the intended subject matter of my lecture, of how the discarded and discredited ideas of 60 years ago became the official policies of the most important central bank of the world, the Federal Reserve System of the United States. Fortunately the American Constitution, based on the principles of Montesquieu, provides for the division of powers which ensures at present that while monetary policy conducted by the Federal Reserve and the United States Treasury pulls in one direction, taxation and fiscal policy, as determined by Acts of Congress, pulls in the opposite direction. Hence, in contrast to the pre-war situation when the contraction of the U.S. economy created the world dollar shortage, and was the main cause of world-wide deflation, there is no world dollar shortage at present; the United States balance of payments on current account is in the red to the tune of over $30 billions which is expected to reach $60 or 70 billions by 1986. Together with the disappearance of the petro-dollar surplus of the OPEC countries this will greatly ease, if not altogether remove, the balance of payment constraint on the economies of the rest of the world—though given the foolishness of many political leaders of the West, there is no telling what might happen.

I think I had best begin by making my own position clear—I regard 'monetarism' as a terrible curse, a visitation of evil spirits, with particularly unfortunate, one could

(1) *The Course of My Life*, New Delhi, 1974, p. 191.

almost say devastating, effects on my own country, Britain. The biological process of natural selection should make for the development of favourable traits in the human character—and that includes the acceptance of ideas and beliefs that promote progress and the rejection of ideas that have the opposite effect. As we all know this is not, unfortunately, either a smooth or a continuous process—it proceeds by fits and starts. The religion of most societies contains the basic dualism between good and evil spirits, between angels and devils, between the purveyors of good advice and the purveyors of bad advice. The choice between them is often represented as a moral issue whereas it is more truly a matter of flair and intuition which sometimes works and sometimes does not. Decadence, according to Nietzsche, is a state in which the individual intuitively goes for the bad solutions for getting out of difficult situations, and fails to pick out the good ones.

The alarming thing is not that some people should hold crackpot ideas—the alarming thing is when crackpot ideas sweep the board—when they capture the minds of a wide selection of important and influential people. This has been the case with the rapid spread of monetarism among academics, journalists, bankers and politicians in the ten years following the first "oil shock" in 1973. Ultimately the devil fails—at least this has been the case hitherto, otherwise we should not be here. But the cost is sometimes horrendous—whether through wars, revolutions or the misery and agony inflicted by mass unemployment, loss of opportunities, loss of skills or even loss of knowledge and know-how.

Perhaps I ought to make explicit the obvious point that the term "monetarism" does not mean "monetary policy", as ordinarily understood. The latter term relates to the policy or policies conducted by the Central Bank. Monetary policy can be of numerous kinds. It could be Keynesian or orthodox, it could also be "monetarist" in the special sense used here, except, as I shall attempt to show, the latter is not likely to be a viable policy in terms of its own objectives. However, as Adam Smith has shown in the Wealth of Nations, banks form a most important institution for economic development, since it is the availability of bank credit which alone makes possible the exploitation of new investment opportunities as they accrue and before the savings generated by the exploitation of the

enlarged economic potential come into existence. It is the primary function of the Central Bank to ensure that the expansion of bank credit proceeds fast enough to exploit an economy's true potential for growth, without allowing the economic mechanism from being clogged up through excessive credit creation. The art of Central Banking, as Hawtrey explained, was to make sure that the right amount of new credit is generated, neither more nor less.

The rise of the new monetarism is mainly associated with the work of a single pioneer, Milton Friedman, a man of unusual ingenuity and powers of persuasion, but also an impish character of whom one can never be sure whether he is serious or just kidding—how far he is genuinely convinced of the things he says and how far he just enjoys the spectacle of parrying the intellectual blows of his opponents by a rich variety of counter-thrusts in unexpected directions—so that he need never acknowledge defeat. The charge of intellectual dishonesty is a serious one and should not be made lightly. However, in connection with Friedman's empirical investigations it has been made more than once, recently and most effectively in a paper by Professor D. F. Hendry (who is Professor of Econometrics at Oxford) and published by the Bank of England (1).

Friedman's work as an economist can be mainly characterized as a counter-reformation — the reaction against the new economics of the 1930s and the return to 19th century orthodoxies. This involved both a denial of the theories of imperfect competition which were destructive of the neoclassical Walrasian general equilibrium value theory and of Keynesian macroeconomics which replaced the orthodox ideas on money and inflation.

More specifically modern monetarism is characterized by *three* particular assumptions—all of which are part of the credo of the (original) Chicago School.

(1) *Prices* in all markets are completely flexible—they *rise* in response to excess demand and *fall* in response to excess supply. Since prices in a perfect market must settle at the point where supply and demand are equal

(1) *cf.* Professor D. F. Hendry and N. R. Ericsson, "Assertion without empirical basis: An econometric appraisal of Friedman and Schwartz", *Monetary trends in the United Kingdom, Bank of England Panel of Academic Consultants, Panel Paper No. 22, October 1983.*

neither commodities nor services can be in a state of "excess supply" more than momentarily. (This comes to the same as the assumption that a market economy, left to itself, is self-regulating—it functions so as to ensure the full and efficient use of resources.)

(2) There are *no* important differences between a (pure) *commodity money economy* (where money consists of gold or silver or oxen) and a *credit-money economy* where money consists of negotiable debt certificates—promises to pay of financial intermediaries which are convertible only in the sense that they can be exchanged into other forms of debt. (A bank cheque can be converted into bank notes; a bank note into other bank notes and so on.)

(3) Effective control over the "money supply" will have a *direct influence* on the level of demand, and hence on prices; successful control of the money supply is both a *necessary* and a *sufficient* condition for moderating the rate of inflation—and indeed bringing it to an end, if the control is maintained long enough.

All three of these propositions are based on false premises and are the main sources of error in monetarist thinking.

(1) The first assumption leads to a failure to recognise the all-important difference between a *demand inflation* and a *cost inflation.* In the 'Walrasian' model of the economy which is at the bottom of all Friedmanite thinking, a rise in prices can occur *only* as a result of excess demand in some or all the markets. Costs (or incomes generated in the process of production) in that model of the economy are *derived* from prices, hence they cannot exert an autonomous influence on prices. In the real world however, except in special circumstances where there is an excessive pressure on resources (this generally happens as a result of a major war or its aftermath, but it can also happen as a result of failure of a government to cover an adequate proportion of its expenditure by normal revenues), prices of goods and services rise in consequence of a rise in *costs*—whether material, fuel, or labour costs—and such cost-induced rise in prices tends to generate further price and cost increases even in circumstances in which there is an excess *supply* both of labour and of productive capacity. Thus the strict mone-

tarist view denies that trade unions can bring about a rise in the *prices* of commodities. They may have the power to raise *wages*, but in the absence of an expansion of the money supply this cannot cause any rise in the prices of the goods which they produce. (This was Mrs. Thatcher's view in the first year of office when she frequently said that all labour can do is to price itself out of the market—it cannot cause inflation. In her second year however she changed her position and admitted that a reduction of price-inflation pre-supposes a reduction in the size of wage settlements.)

(2) The second assumption carries the implication that money has an 'exogenous' supply schedule in a credit money economy, which determines the quantity available independently of the demand for it—it denies the basic difference in casual relationships between a commodity-money system and a credit-money system.

(3) The third assumption implies that the quantity of money and the velocity of circulation are mutually invariant, whereas in reality, controls which succeed in reducing the stock of money (or cause it to rise at a lower rate) may be rendered nugatory by a compensating change in the velocity of circulation. Indeed the very distinction between changes in the *quantity* of money and changes in the *velocity of circulation* comprises an arbitrary element of definition—what appears as a rise in the velocity of circulation under a narrow definition, may appear as a change in the quantity of money on a broader definition, which includes money substitutes.

Of these assumptions I propose to concentrate on the second, the differences between a *commodity-money economy* and a *credit-money economy*, just because I regard this as the essential element of the problem which has been largely neglected by Keynesian economists and not only by the monetarists.

It is the essence of the quantity theory of money that the supply of money is "exogenous"—that is to say, that it is determined independently of the demand. This will be the case in all circumstances in which the quantity of the money-commodity (strictly speaking this involves a closed economy *not* trading with the outside world) i.e., the quantity of precious metals is given. It is also true in

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cases in which money has an ind
i.e., when the quantity of the money commodity can be varied through production, but the changes in supply that can be brought about in this way directly generate incomes, and are closely related to the value of money *in terms of goods*. (Ricardo assumed for purposes of his theory that gold is produced under conditions of *constant cost* —*i.e.*, that the value of gold in terms of commodities is fully determined by its labour costs relative to that of other commodities.) But in the case of paper money or credit money in its numerous forms (bank money) there is no such independent supply function. Credit money comes into existence as a result of bank lending and is extinguished through the repayment of bank loans. Hence the 'money supply' can never be in excess of the demand in the sense in which the available quantity of gold can be in excess of the amount people wish to hold. At any one time the volume of bank lending and its rate of expansion is limited by the availability of credit-worthy borrowers. When trade prospects are good or when the money value of the borrowers' assets (their collateral) rises as a result of a rise in prices, the demand for bank credit rises but by the same token, the credit worthiness of potential borrowers also improves, so that the supply of credit will expand automatically with the demand.

In the case of a purely metallic currency, it is possible to suppose that the supply of the money commodity increases *relatively* to the demand—say, as a result of the discovery of new gold mines or the conquest of a new continent with a great deal of gold like the Spaniards found in America in the 16th Century — in which case the value of gold must fall relative to other commodities in order to find a 'home' for all the gold that seeks a 'home'. A change in the price level—in the value of the money commodity relatively to others—thus forms the adjustment mechanism which brings *desired* money balances (Walras's "encaisse desirée") into conformity with *actual* balances.

But there is no analogue to this in the case of credit money. The "supply" of bank money cannot be assumed to vary relatively to demand; the two must always change together. It is impossible to imagine that the prevailing amount of bank money should be in excess of the amount which individuals collectively desire to hold—if there was

such an excess, it would be extinguished through the repayment of bank loans.

In other words, in a credit money economy the money supply is necessarily *endogenous*, not exogenous. This proposition is of course in sharp contradiction to the beliefs of the many adherents of the quantity theory of money who think that the exogeneity of the money supply in a credit money economy is ensured either through the numerical dependence (or strict proportionality) of bank money to the underlying "real" money (this was Walras's and Marshall's view)—paper money is in strict proportion to gold—or simply through the *reserve requirements* imposed on commercial banks by the Central Bank. However there is no such one way causation from the "monetary base" determined by the Central Bank and the size of the credit pyramid which is built on it. This is partly because the Central Bank can only determine the total of "base money" issued (including the notes and coins circulating with the public) and not the size of the commercial banks' reserves as such. But it is partly also because the Central Bank's function of "lender of last resort" (which is considered indispensable for maintaining the solvency of the banking system) makes it impossible for the Central Bank to set rigid limits to the amount of cash which it is willing to put at the disposal of commercial banks through re-discounts. The "discount window" can never be closed.

Keynes unwittingly contributed to Friedman's revival of monetarism by his "liquidity preference" equation, $M = L(Y, r)$ where the demand for money was assumed to vary with the rate of interest as well as income, whereas the supply of money, M, was taken as an exogenous constant. This formulation puts the whole burden of adjustment to a change in the level of income, Y, on the elasticity of demand for money balances—the elasticity of the liquidity preference function, which meant that variations of economic activity will be correlated with corresponding variations in the velocity of circulation. Starting from these premises Friedman was justified in thinking that strong empirical evidence concerning the *stability* of the velocity of circulation—in other words, a strong empirical correlation between M and Y—is sufficient to "refute" the Keynesian hypothesis. However it did not occur to him (at least not immediately) that the

explanation of his findings may lie somewhere else—in the variability of M with the volume of borrowing which postulates a high degree of elasticity in the *supply* of money with respect to the rate of interest (and hence of income) and not (or not necessarily) of the demand for money at a given level of income. However, once we realise that the supply of money is endogenous (it varies automatically with the demand, at a given rate of interest), "liquidity preference" and the behaviour of the velocity of circulation ceases to be important.

At a later stage, Friedman and his followers investigated the matter and came up with a remarkably ambiguous answer: "the alternatives contrasted are not mutually exclusive. Undoubtedly there can be and are influences running both ways" (i.e. from Y to M as well as from M to Y). He then cites "five kinds of evidence" for the view that the "money series is dominated by positive conformity"(1).

I found most of his "evidence" (particularly that of his book, The Monetary History of the United States) largely worthless or irrelevant(2). Moreover I found that contrary to Friedman's frequent assertions the demand for money as a proportion of incomes (i.e., the reciprocal of the velocity of circulation) is neither "stable" between countries nor stable over time *except* in some countries. For example, in Switzerland, Italy and Japan the money supply (on the broad definition M_3) has been rising over the last twenty years in relation to incomes, whilst in the U.S. and the U.K. it has been falling. In 1978 the ratio of M_3 (broad money) (as proportion of the GNP) was over three and a half times as large in Switzerland as in the U.K. Even on the narrow definition, M_1, the money supply in Switzerland was nearly three times as great as in the U.K. or the U.S. as a proportion of the GNP. Yet no-one would regard Switzerland as an "inflation prone" country (let alone *more* inflation prone) than the U.S. or the U.K.(3).

The traditional method by which a central bank exerts its regulatory function is by setting its own re-discount

(1) *cf.* "The Monetary Studies of the National Bureau", New York, 1964, reprinted in *The Optimum Quantity of Money and other Essays*, Macmillan, 1969.
(2) *cf. Lloyds Bank Review*, 1970. *Further Essays on Applied Economics*, Duckworth, 1978, particularly pp. 25-27.
(3) *cf.* my book *The Scourge of Monetarism*, Oxford University Press, 1982, Part II.

rate, and keeping the market rates in certain relationship to this through open market operations. Historically, the Central Bank's policies were mainly motivated by the desire to protect its own reserves (consisting of gold and reserve currency holdings); it lowered the discount rate in times of rising reserves and *vice versa*. This policy is perfectly compatible with the "money supply" being a passive element varying automatically with the demand for credit (or the availability of credit-worthy borrowers).

However in the new monetarists' view all this is wrong. To stabilize the economy and to avoid inflation what is needed first of all is to secure a *steady growth in the money supply*, not a steady rate of interest. Hence the "new" policy of the Federal Reserve, announced by Mr. Volcker on October 6, 1979, was to secure a slow and steady growth of the monetary aggregates M_1 and M_3 by varying the reserves available to the banking system through open market operations, irrespective of the movements of the rate of interest. From that day on dramatic changes started to happen which were quite different from those expected. The money supply failed to grow at a smooth and steady rate; its behaviour exhibited a series of wriggles. The rate of interest and the rate of inflation, though both were very high at the start, soared to unprecedented heights in a very short time. By March 1980 the rate of interest rose to 18.6 per cent and the rate of inflation to 15.2 per cent, and a little later both were over 20 per cent—which had never occurred before in the United States, certainly not in peace-time. And there was a mushroom-like growth in new forms of making payments and new instruments circumventing the Fed's policy—through the invention of money substitutes of all kinds, the transfer of business to non-member banks or to branches of foreign banks, and so on. The Fed's reply to this was that its failures were all due to loopholes in the existing system which must be closed. Congress obliged their friends in the Fed very quickly, passing the Monetary Control Act of 1980, supplemented by invoking the International Banking Act and the Credit Control Act. These extended minimum reserve requirements to all deposit-taking institutions, whether or not they were member banks of the Fed, as well as to branches of foreign banks in the U.S. But none of this helped, as the British Radcliffe Committee foretold would happen twelve years earlier, when it said that the extension and multiplication

of controls through a wider spread of regulated institutions would only mean that new forms of financial intermediaries or transactions will appear which will cause the situation continually "to slip from under the grip" of the authorities.

The American monetarist experiment was a terrible failure, as was publicly admitted by Friedman and Meltzer in 1982, though insisting that it was the fault of the authorities in not being able to run a monetarist policy properly—not the fault of basic theory. Short of the old Chicago plan for 100 per cent reserves, there was certainly no way in which the authorities could have stopped the banks inducing the public to exchange more of their currency notes for deposits and thereby enlarge the lending power of the banks combined with a re-purchase agreement if necessary. After a year and a half of continued failures and a chaotic volatility of everything—interest rates, exchange rates, inflation rates—the experiment was abandoned and the system returned, in effect, to the traditional policy of regulating interest rates but with a more deflationary stance; partly, I presume, to offset the inflationary force of excessive federal deficits—and cause the rest of the world to suffer (or benefit, as the case may be) from the consequences of an overvalued dollar. As the former German Chancellor Schmidt said the other day, the U.S. Government caused *real* interest rates to rise to higher levels than at any time since the birth of Christ.

In retrospect none of this would have happened if the Fed had studied and understood the analysis and prescription of the British Radcliffe Committee in 1958, according to which central banks should not really be concerned with the "supply of money"—it is the structure of interest rates, and not the quantity of money "which is the centre-piece of monetary action". However, the Committee was also of the view that the structure of interest rates, and particularly the long term interest rates should be set by the Central Bank in the best interests of long term development and not moved up and down with the changing needs of the short-term situation. But this implies (though the Committee refrained from spelling out these consequences explicitly) that for the day-to-day control of the rate of expansion of bank credit, the Central Bank requires additional instruments such as setting 'ceilings' for the rate of credit expansion, which is the method practised by most European central banks (including

the Bank of England up to 1931) as well as, I understand, by the Reserve Bank of India.

In Britain, when Mrs. Thatcher came to power in May 1979, her Government officially pronounced the formal adoption of the "monetarist creed" with almost the same solemnity as the Emperor Constantine when he embraced Christianity as the state religion. However in the circumstances of British institutions this proved even more difficult than in the United States, as subsequent events have shown. The Bank of England was incapable of fixing the "monetary base" let alone the size of mandatory bank reserves, or to leave interest rates to be freely determined by the market. Instead they fixed a four-year target for the growth of the money supply (on its broad definition of M_3 including interest-bearing bank deposits) on a gradually shrinking basis—7-11 per cent increase in the first year, 6-10 per cent in the second year and 4-8 per cent in the fourth year; and they relied, for holding the money supply within the target range, on a steadily falling public sector deficit (as a percentage of the national income) and on varying short-term interest rates upwards or downwards, according as the money supply moved relative to the target. (They were convinced, wrongly, in my view, that the public sector deficit is the major cause of changes in the money supply and/or that a change in interest rates can affect the money supply otherwise than through consequential changes in the volume of borrowing.)

But the whole plan came unstuck in their first year and disastrously so in the second year. The growth in the money supply continually exceeded the target range from the beginning and it rose at an almost unprecedented rate of 22 per cent in the second financial year. At the same time the deficit of the public sector exceeded the target by 2 per cent of the GDP in 1980-81 and by 1 per cent in 1982—despite repeated cuts in public expenditure and heavy increases in the burden of taxation.

The Government has thus singularly failed to carry out its stated objectives in terms of either the growth of the money supply, or of the reduction in the burden of taxation, or in the public sector deficit. But they have nevertheless succeeded (if "success" is the appropriate term) in creating a deep economic recession—a recession that goes far beyond that experienced by any other Western

industrialised country. Manufacturing output fell by 13.5 per cent in the Single year 1980—a greater fall than during the whole Great Depression of 1929-32. Industrial production in 1983 was 20 per cent lower than ten years earlier, whereas in the case of other industrial countries industrial production is considerably higher than ten years ago. There can be little doubt that the unprecedented rise in the effective exchange rate of the pound sterling (which reduced industrial competitiveness by some 40 per cent in comparison with 1978) must have played a major role in this, causing a large fall in new orders both in the home market and abroad and an exceptionally large reduction in stocks. The rise in unemployment from 1.2 to 3.2 millions—by 2 million or 8 per cent of the labour force in two years—together with the numerous closures of factories, actual or threatened, has undoubtedly greatly weakened trade union power and thus contributed to a slowing down in the rate of increase in wages in recent settlements. This, however, is clearly a *consequence* of mass unemployment due to the recession; it *cannot* be due to anything which has happened, or is happening, on the side of the money supply. The "achievements" on the wage front and in the inflation rate do not provide any support for the validity of "monetarism" —quite the contrary—which does not stop Government spokesmen from claiming credit for it.

The Thatcher experiment has thus left Friedman and the monetarists in an intellectually highly embarrassing position. Friedman has admitted that as far as the United Kingdom is concerned, the money supply is *not* exogenously determined by the monetary authorities, but he attributed this to the "gross incompetence" of the Bank of England. Later he said or implied the same thing about his own country. However, this puts an entirely new complexion on monetarism. It was nowhere stated in the writings of Friedman or any of his followers that the quantity theory of money *only* holds in countries where the monetary authorities are sufficiently "competent" to regulate the money supply. If the Bank of England is so incompetent that it cannot do so, how can we be sure that the Bank of Chile or of Argentina or Mexico—to take only the highly inflationary countries—is so competent, or rather so competently incompetent, as to make it possible to assert that the inflation of these countries was the *consequence* of the deliberate action of their central banks in flooding these countries with money? How indeed can we be sure

that any Central Bank—not excluding even the German Bundesbank or the Swiss Bank—are sufficiently competent to be able to treat their money supplies as exogenously determined? And what happens if they are not? Surely we need a theory of money and prices to cover the cases of countries with incompetent central banks, such as Britain and the United States?

The acceptance of monetarist theories was largely the consequence of the glittering empirical and econometric evidence which Friedman and his followers were able to assemble concerning the close correlation between changes in the money supply and of the level of money transactions (the money GNP) which Friedman believed was incompatible with, and thus refuted, Keynesian theory. However he always admitted that this is only true on the supposition that the change in the money supply is the *cause* of the change in the level of prices (or of total expenditure) and not the other way round. In other words, that the money supply is exogenously determined by the monetary authorities. *If* it is now conceded that this would not be true in all cases—it would not be true in cases of countries with incompetent monetary authorities like the Fed or the Bank of England—how can we be sure that his findings have any relevance to other countries which may be tempted to control inflation by making the money supply follow an exogenous path of slow growth? The only remaining example where Friedmanite policies were given a thorough airing is Chile, but it would take me too long to explain why that country, too, must be classed among the incompetents.

In my view the proper test of competence of a Central Bank is how far it succeeds in ensuring that the banking system grants sufficient credit at the disposal of industry and commerce so that the true economic potential of the economy can be reasonably fully exploited without being over-exploited. In other words, bank credit should expand at the right rate, neither more nor less. This is neither ensured nor prevented by attempts to control the vagaries of the money supply.