CHRISTOPHER DOW

John Christopher Roderick Dow
1916–1998

I

THE REQUIEM MASS FOR CHRISTOPHER DOW was in the Brompton Oratory. It was attended by his family and friends, and also by a large number of colleagues from the many stages of his long and distinguished career. The Governor and the Deputy Governor of the Bank of England were there, together with a contingent of senior officials past and present; the leading university economics departments were equally well represented; there were many there who had worked with him at the Treasury and the OECD in the 1950s and the 1960s; the National Institute of Economic and Social Research on its own filled a good number of pews.

The setting was impressive, the music magnificent. But the purpose of that service, as the homily delivered by the priest made clear, was to praise God and to comfort the bereaved; it was not an occasion to recount the story of Christopher's life, or to assess his professional career. Everyone who was there knew, nevertheless, that his was a life and a career well worthy of celebration. Christopher was one of the best applied economists of his generation, as well as a wise and dedicated public servant. He was also a devoted husband and father, a loyal colleague, and a kind friend. He was, moreover, an exceptionally careful and fairminded scholar. Now that the time *has* come to write an account of his life and work, he would have wished that to be balanced and objective too.

The week in which Christopher died was to have seen the publication

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of his latest book. It was a major study of major recessions, written over a period of about ten years and completed at the age of 82. Christopher never retired. He was in his room at the National Institute on most days, and as he completed each formidable and self-assigned task, he was planning the next. Yet one could never mistake him for an obsessive worker, as his life was full of so much else—his home, his family, his travels, entertainment, and the arts. He went on working because he enjoyed it, and because there were so many intellectual problems that he wanted to solve.

II

John Christopher Roderick Dow was born in February 1916. He was educated at Bootham School in York, at Brighton Grammar School, and at University College London. During the war he served with the RAF in India. Then, in 1945, he joined the Economic Section of the Cabinet Office as an economic adviser.

There could be no more important and exciting place to be doing applied economics than the Economic Section at that time. The war was over and a new government had been elected, determined to introduce a new economic policy regime and willing to accept new responsibilities. There must never again be unemployment like that of the inter-war years. During the war public opinion had been converted to believe that governments could, and should, keep far greater control over the economy than had ever been the practice in Britain in peacetime before. Professional opinion amongst economists had largely been converted by the writings of Keynes and his followers to something called 'modern economics', which meant that the government should manage aggregate demand. But no-one had any experience of doing this; the know-how or expertise did not yet exist. The team of a dozen or so young economists in the Economic Section under James Meade had the task of showing how it could be done.

Here, in embryo, was the Government Economic Service. Here, also, we can find the origins of a distinctively British approach to economic policy, as it was to be practised for the next three decades or more. The economy was to be kept under constant surveillance, paying very close attention to the national income statistics, but taking account of a wide range of other indicators as well—therein lay much of the expertise. Forecasts were to be made looking a year or two ahead, making use of statistical rules of thumb, later of more formal econometrics, but also of something very important called 'judgement'. Then ministers would be told what measures they would need to take to bring the outlook more into line with their objectives; and very often that advice would be taken. It was an awesome task. If the economists in the Economic Section got it right post-war recovery would proceed smoothly and prosperity would be assured; if they got it wrong who could tell what economic, social, and political ills that would entail?

A history of the Economic Section has been written by Alec Cairncross and Nita Watts.[1] In the preface to their book they remark on the calibre of the staff employed in the Section, as demonstrated by their subsequent achievements: two were to be Nobel prize-winners, one was to be a President of the British Academy, another to be a Deputy-Governor of the Bank of England—and so on. One can think of it as a shared experience which determined the values as well as the intellectual standards and outlook of many of those who were to influence or guide economic policy in Britain at least until the 1970s. In many ways, Christopher Dow came to exemplify, even to personify, that tradition.

Robert Hall, as head of the Section, relied heavily on Christopher and had a high regard for his contribution, both as a leader and as an innovator. Thus, his views helped to shape both the substance and the exposition of policy at this crucial stage. He invented much of the machinery of working parties and methods which were to support government for many decades to come.

It is not easy to discover precisely what any individual contributed to the work of the Section. It was a team game that they played, with all the complex inter-action and the tensions which that implies. Personal, as well as professional, relationships were close, and sometimes turbulent. Christopher had some management responsibilities, especially after his promotion to be a Senior Economic Adviser. He was said to be a perfectionist, not always an easy person to work for, given to repeated redrafting of his own, and other people's, words. He thought it was important for economists to be 'close to the action', that is to say actually involved in the process of policy formation, not just commenting on it. Economists and other senior officials had to talk the same language. The relationship was helped by the transfer of the Section to the Treasury in 1952. It was to be the way that government economists often worked

[1] Cairncross A. and N. Watts, *The Economic Section, 1939–1961* (1989).

in Britain, making them the envy of their counterparts in America and elsewhere.

The subjects on which Christopher worked in the Section were to be a preparation for his later interests and responsibilities. He wrote papers on demand management and the role in it of taxes and public investment. He wrote about monetary policy and the exchange rate. He wrote about unemployment, fearing that too low a level would prove to be unsustainable. He set up the working party which made forecasts of the world economy.

In 1954, Christopher moved, on secondment from the Treasury, to the National Institute of Economic and Social Research, then as now an independent body and a leading centre for applied economics. His task was to review the post-war development of economic policy in Britain, assess its achievements, and consider how it might do better in the future. In this he helped to consolidate the mutually beneficial relationship of the Institute with the Government Economic Service, building up a centre of professional experience, sharing a common philosophy with government economists, but removed from the constraints of Whitehall secrecy and routine. Christopher played a leading role in the changes to the Institute programme being made by its director, Bryan Hopkin.[2]

The plan, formulated by Christopher, was that the Institute would take on something of the role played by the Konjunktur institutes on the Continent, working in parallel with the Treasury. It would publish forecasts and policy assessments to stimulate public debate, and it would support this with research into the structure of the British economy. Financial help from the Ford Foundation, and strong moral support from Robert Hall at the Treasury, made the programme possible. The first number of the *National Institute Economic Review* was published in January 1959.

Christopher's own research programme was related, but distinct. He had a Leverhulme Fellowship for two years to study the behaviour of the post-war economy and the effects on it of economic policy. In the event the work was to take not two but eight years to complete. This might, on the surface, seem like late delivery, but in fact the programme became wider and deeper as it progressed, and the addition of the extra years of data and experience enhanced the significance of the results. In the mean-

[2] Jones, K., *Fifty Years of Economic Research, A Brief History of the NIESR, 1939–1988* in *National Institute Economic Review*, May 1988.

time a number of important and influential papers had come out of the project, making timely contributions to public debate.[3]

In several of his projects Christopher collaborated with Leslie Dicks-Mireaux, who was to be a colleague in his later career on more than one occasion. The partnership worked well. Christopher, it is said, mainly wrote the words, whilst Leslie provided the numbers, but both contributed to the whole. Econometrics in those days was not the arcane subject that it was to become, and any economist interested in the application of the subject to policy could be expected to understand and use the latest techniques. The aim was to find equations which could be used to interpret and to project the recent behaviour of the economy, rather than to exemplify the implications of axiomatic theory. It might, for example, be inconsistent with rationality for workers to accept wage increases that did not compensate in full for price inflation, yet that apparently was how the data showed them to behave.

Christopher became Deputy Director of the Institute in 1957, when Bryan Hopkin was succeeded by Christopher Saunders. In 1962 he returned, rather reluctantly it is said, to the Treasury to work under Alec Cairncross. His first big book[4] was published in 1964. It was to become a standard text on the post-war British economy, widely used in teaching, and selling over thirteen thousand copies.

III

The Management of the British Economy is an important and impressive scholarly work. It was a pioneering venture, the first of its kind, ambitious in its scope and innovative in its method. It helped to establish the concept of demand management as being the key issue of economic policy, and convinced many readers that it could be executed successfully. The book was very widely studied and admired.

[3] For example: Dow, J. C. R. and L. A. Dicks-Mireaux, 'The Excess Demand for Labour, A Study of Conditions in Britain, 1946–56', *Oxford Economic Papers*, NS 10 (Feb. 1958). Dow, J. C. R. and L. A. Dicks-Mireaux, 'The Determinants of Wage Inflation, United Kingdom, 1946–56', *Journal of the Royal Statistical Society*, 122, Part 2, (1959). Dow, J. C. R., 'Analysis of the Generation of Price Inflation, A Study of Cost and Price Changes in the UK, 1946–54', *Oxford Economic Papers*, NS 8 (Sept. 1956).

[4] Dow, J. C. R., *The Management of the British Economy, 1945–60* (Cambridge, 1964).

After a short introduction, it provides a concise, but very readable, historical account of events under the Labour and Conservative governments. Although he was an 'insider' for much of this period, he explained in the Preface that he had made use only of published material and was interested in the consequences of policy rather than its origins. Anyone who has written an account of events in which they took part will know, however, that the memories of those involved in the action are not quite the same as those of an outside observer.

Part II of the book is about the analysis of policy and Part III about the behaviour of the economy. Some of the chapters are marked with asterisks to warn the reader that they are of a more technical or theoretical nature. Yet they are all written in a lucid and compelling style—a pleasure to read even for the non-specialist. The aim is always to communicate and, perhaps, to convince, never merely to impress.

Part IV summarises the conclusions of the study in just fifty pages. It gives an optimistic assessment of what policy had, and could, achieve:

> In terms of its fundamental aim—the desire so to manage the economy as to prevent the heavy unemployment that accompanied the pre-war trade cycle—modern economic policy has clearly been a success. (p. 364)

Compared with this achievement, the continuing worries about inflation, the balance of payments and the rate of growth in comparison with other countries all seem relatively unimportant. The government had shown its willingness and its ability to maintain demand on the few occasions when the level of unemployment threatened to rise unduly. That action had reassured the world of business that depressions were a thing of the past; such confidence had itself helped to sustain demand.

Nevertheless, if one looked in detail, as this study did, at the timing of policy changes, this very positive assessment of policy had to be qualified. The book was in fact best known for its conclusion that the course of output might have been smoother from year to year if the authorities had not changed course so often:

> The major fluctuations in the rate of growth of demand and output in the years after 1952 were thus chiefly due to government policy. This was not the intended effect; in each phase, it must be supposed, policy went further than intended, as in turn did the correction of those effects. As far as internal conditions are concerned then, budgetary and monetary policy failed to be stabilizing, and must on the contrary be regarded as having been positively destabilizing. (p. 384)

Looking ahead, Christopher was optimistic about the possibility of improving on past performance. He believed that more could be done to accelerate the growth of capacity. Firms in an imperfectly competitive economy planned on 'conservative' assumptions about the growth of demand, and set their prices accordingly. The market system would not ensure that full advantage was taken of new technological possibilities:

> There seems then a logical case for the organized, mutual discussion by private firms and public corporations of their plans for expansion. The result could be to persuade the main body of firms that faster growth was possible . . . Such an exercise, it may be said, would be no more than a psychological conjuring trick. But the foregoing analysis of the relation between prices and the expansion of real output suggests that it matters what kind of faith business works on, and that left to itself nature does not necessarily produce the best answers. (p. 398)

By the time that the book was published it was becoming all too clear that growth was being held back to restrain inflation and, more urgently, to support the balance of payments. Christopher was careful not to dismiss devaluation as a possible solution to this problem, but he also thought that wages policy might be effective in preserving international competitiveness. He thought that unemployment would have to be a little higher, and the pressure of domestic demand a little lower, in the future. Like many others at the time, he hoped that improvements in the growth rate of capacity would help to solve the problem of inflation by justifying the growth of real wages for which the trade unions were campaigning.

The originality of the book was not so much in its policy conclusions as in its main method of analysis. This consisted of using, in retrospect, the same methods as were used by Treasury economists to assess policy options for the future. One could ask how the past would have been different if policy had followed a different course—and one could answer that question quantitatively. Thus one could say what the effects of one year's Budget had been, provided of course that one could define what it would mean for policy to be unchanged. Later writers who followed in Christopher's footsteps have sometimes become mired in methodological questions of that kind.

IV

Shortly after the completion of his book, Christopher made another move, from the Treasury to the Organisation for Economic Co-operation and Development (OECD). In the 1960s the OECD was attempting to co-ordinate policy across the major industrial nations of the West. The United States no longer dominated the world economy as it had in the immediate post-war period. Indeed the problem of dollar strength was being transformed into a problem of dollar weakness. It was becoming more and more important for the governments of member states to work together, despite their different interests and their different political philosophies. They were helped by the very able economists and other officials who worked for the OECD Secretariat, an international team on which the British tended to be especially well represented. For a few years one could almost imagine that the world economy was being managed by a faceless body called Working Party Three.

Christopher was Assistant Secretary-General of OECD in Paris, and its chief economist, for ten years. This was a senior position, with responsibility for many staff and a salary to match. It is said that Christopher never enjoyed life more than he did at this time. He had married late and very happily, in 1960; it is said that he mellowed considerably in consequence. 'It was', as *The Times*'s obituarist wrote, 'as if the sun had come out.' He was very fond of France, and he continued to spend time there when he could for the rest of his life. From this period also must date his quiet faith and practice in the Catholic church from which he drew much comfort and strength.

Christopher took to the OECD the expertise developed at the Treasury and at the NIESR. His main priority was to equip the organisation to interpret economic developments in all member states, along the lines required for demand management. This necessitated macroeconomic modelling, regular commentaries and forecasting. The *OECD Economic Outlook*, first published in 1967, became an international version of the *National Institute Economic Review*. His team provided the paperwork for serious debate amongst ministers and officials as to how the international monetary system could be preserved from year to year, as the problems it faced became more and more serious.

This meant sacrificing other work which the Secretariat had in hand, or in prospect. Less was done than might have been on comparisons of productivity across member states. Short-term issues of reconciling demand patterns and coping with exchange rate changes seemed more urgent than longer-term issues of supply potential. This reflected Christopher's own background and interests, but also the pressing concerns of the governments which the organisation was there to serve.

Christopher remained very British, in thought and also in manner. This did not always help his relations with his Continental colleagues, but he was greatly respected and highly influential. Sometimes the Secretariat was officially in the position of supporting eminent outside experts, but the real situation was that the substance of the work was done in-house by Christopher and his team. During this time the number of economists employed by the organisation increased sharply to about its present size.

Whilst in Paris, Christopher was offered a chair at Oxford. Had he taken this up, his subsequent career might obviously have been very different. He would surely have built up the academic following which he subsequently lacked. He would have had to address a different audience, one more concerned with theory and less with practice. He would probably have published much more, but he would have been less influential. As it was, an even more attractive offer came to him from the Bank of England. In 1973 he became an Executive Director, responsible for economic services.

V

By the mid-1970s the 'Golden Age' of the post-war economy had come to an end. The Bretton Woods system had broken down; inflation was accelerating and unemployment was increasing. Moreover the consensus over the aims and conduct of economic policy could not survive in these troubled times. In Britain the Labour Party was moving further to the left, the Conservatives further to the right, leaving moderate opinion and most public servants stranded in the middle. Economists were dividing into mutually hostile camps of Keynesians and monetarists, those who wanted to build on the traditions of the post-war period and those who wanted to make a fresh start resting mainly on classical theory. It was a battle for hearts and minds, and also for control of the levers of power. This was the background to Christopher's ten years at the Bank of England.

In essence his views did not change from those he held in the 1950s and 1960s. He still believed that economic policy was about the management of demand, using fiscal or monetary means as appropriate. He did at one time consider that a monetary target could be a means to that end, but he never accepted the theory underlying monetarism. He did not think that the economy is a self-regulating system which could be left to run itself provided that the money supply was kept under control. In this he was not alone, indeed his views were no different from those of most of his colleagues at the Treasury and the Bank of England. Under the pressure of events, especially events in the financial markets, the design of policy became more monetarist and less Keynesian even under the Labour government; after the 1979 election it became dogmatically so. Those responsible for carrying out these policies had to adapt themselves to the unwelcome changes as best they could.

One very important difference from the post-war years was that the exchange rate for sterling was no longer fixed. This did not necessarily mean, however, that it could be left to the market to determine. Christopher did not favour a free float. This was to be a recurrent concern in the advice that he gave, both in the crises of the 1970s and in the debate over membership of the European Monetary System in the 1980s. He wanted to use the exchange rate tactically as a means of managing the economy, not to be constrained by a rigid commitment to hold it constant at all times, come what may.

Christopher was involved in policy-making at the top of the Bank throughout his stay. He was close to the Governor, Gordon Richardson, who became a good friend and who admired his skills of analysis and diplomacy. His ability to write very well for a variety of readers was also a great asset. So too was his wide experience of life outside the Bank in the jobs that he had held before. He had good standing as one of the leading macroeconomists in the country.

The Bank had always been a highly secretive institution, more so even than the civil service. Christopher did much to open it up to the outside world. He developed its *Quarterly Bulletin* to become a valuable means of communication, even allowing it to voice opinions which would be thought controversial. He turned it into a running commentary on events, both economic and financial, not unlike the *OECD Economic Outlook* or the National Institute *Review*—although rather more magisterial in tone as befitted the publication of a central bank. He set up an academic panel to which papers were presented both by members of the Bank staff and by leading academics. It was allowed to hear conflicting opinions on controversial issues central to the policy debate. That was a rather brave thing to do in the climate of the time.

In his earlier days, Christopher had been seen as a rather difficult person to work for, not least because of his close attention to detail. At the Bank it seems that this was no longer the case: he was popular with the junior staff, because he encouraged them to develop their own ideas and enjoyed helping them to do so. Having the Governor's ear, he made the economists who worked for him feel more influential; by opening up a little to the outside world he made them feel less isolated from their professional colleagues. The attention to detail was still in evidence—and it was aesthetic as well as intellectual. He would pay close attention to the design of publications, and consult widely about the colour to use on the covers.

It could be said that the real business of the Bank of England, at that time, was not the management of demand, but the management of financial markets and financial institutions. This was less familiar territory for Christopher, although he had written about the determination of interest rates and the control of bank lending in the past. He was not an adept in the mysteries of central banking, the lore of the City or the ploys by which gilt-edged stock could be sold to the pension funds. The location of his room in the Bank was said to measure his distance from the crucial decisions in these areas of responsibility. Yet he was never ignorant about the technical side of market management, as some purely theoretical monetary economists have been.

He was very important to relations between the Bank and senior officials at the Treasury. These relations were not always easy, especially under the Thatcher government, as the Treasury tried to understand and to implement the new philosophy, and the Bank tried to avoid being made responsible for new methods of operation which clearly would not work—monetary base control being the obvious example, but not the only one. Christopher understood the Treasury, and could reason with its officials. This was not hard to do in the days of Douglas Wass and Bryan Hopkin, but it was still done successfully in the days of Peter Middleton and Terry Burns, when one might have thought that it would have been much more difficult. He was an accomplished diplomat. Perhaps for that reason, he sometimes expressed his views in oracular language, to which the term 'Dovian' came to be applied.

When Christopher reached the age of 65, in 1981, he retired as an Executive Director. One might have expected that this would be the end of his career at the Bank, if only because of his known misgivings about the way in which policy was being conducted. Such was the value placed on his services however, that he was kept on, for a further three years, as an adviser to the Governor, with an important personal role in the continuing policy debate. He left in 1984, shortly after Gordon Richardson finished his term as Governor. He was welcomed back to the National Institute as a visiting fellow.

VI

Between 1984 and 1987, Christopher completed his *Critique of Monetary Policy*, co-authored with Iain Saville, who worked with him on loan from the Bank.[5] It was a critical examination, one might say an intellectual demolition, of the policies which had been followed for the past ten years, and especially the use of targets for a monetary aggregate as a framework. In his Preface Christopher distanced himself from those policies, comparing his position at the Bank to that of a court jester who was 'licensed to voice unpopular truths'. One wonders, however, whether he could have stayed so long in that position if that was all that it had ever been.

The *Critique* brings together some reflections on economic theory and the lessons of practical experience. In the introduction, the authors make what might appear to be a very modest claim:

> To the extent that this study is novel, there is the question of how firmly based it can claim to be. It would be difficult to find full empirical verification for propositions of the sort we advance. There is, however, wide disagreement amongst economists on all aspects of economic theory. Econometric research, too, is no better based than the theories it tests. Though our conclusions clearly must be tentative, they are based on close observation and analysis and may appear worth critical examination. (p. 7)

They are determined to think the issues through for themselves, never relying on the authority of others. Thus, in the chapter on the determination of interest rates, we read:

> We first set out our own view without extensive reference to what others have said; then, having done so . . . we comment more fully on how our account relates to the existing theoretical discussion. (p. 43).

An academic reader may be left wondering how much of the book really is original, how much reflects the intellectual environment in which Christopher's views were formed. At the end of the book we read:

> Not surprisingly, the domestic role suggested here for monetary policy is not unlike that which was expected for it in days before monetary targets; the above prescriptions for policy may indeed appear somewhat similar to those in the Radcliffe Report.

More fundamentally the debt to Keynes is often acknowledged, and clearly profound despite some important points of disagreement. It is no

[5] Dow, J. C. R. and Saville, I. D., *A Critique of Monetary Policy, Theory and British Experience* (Oxford, 1988).

doubt significant that Keynes was also a man concerned with practical policy questions, used to addressing a non-professional audience.

The *Critique* makes two very important points. The first is that the central bank cannot necessarily control the quantity of money directly or with any precision. That was what the authorities in Britain had learnt the hard way in the early 1980s. This historical fact is turned into a criticism of almost all monetary theory, including that of Keynes. Causation runs from the price level to the quantity of money, not the other way round. Although the point was not original, it was presented exceptionally cogently and well.

There is another point on which the *Critique* is at odds with most monetary theory, again including that of Keynes. It is suggested that the level of interest rates has little effect on the domestic real economy, either on fixed investment or on consumer spending. In no sense, therefore, can the level of interest rates be said to equate the supply and demand for capital. Within a wide margin, interest rates are indeterminate, depending only on what they are expected to be in the future and on the lead given by the monetary authorities. Again one can see how the historical facts lend support to such a view.

The implications are profound, not just for the way in which policy was conducted in the 1980s, but for the way that it has been conducted in the 1990s as well. If interest rates do not have much effect on domestic output, it is unclear how they can have much effect on domestic inflation either. In his Preface to this book Christopher suggests that Keynes was wrong, and Montague Norman right, when they gave evidence to the Macmillan Committee between the wars. The attribution of large effects to changes in short-term interest rates may have been 'simply mistaken'. Where, one wonders, does that leave the painstaking deliberations of the Monetary Policy Committee today?

The account of the determination of interest rates in the study is clearly based on experience as well as theoretical reasoning. How can a central bank whose own transactions are so small relative to those of the whole market be said to control even short-term rates? The answer has to do with the way in which the banking sector is organised. The big banks do not compete on the price of loans, each charging what it expects the others to charge. The description is reminiscent of that of the pricing decisions of imperfectly competitive firms outlined in Christopher's earlier book. Someone has to give a lead. The commercial banks are happy to leave that to the authorities, if only because they do not relish the high political profile that their decisions might otherwise acquire.

The book did not please all its readers. It was given an unfavourable, and rather hurtful, review in the *Economic Journal*:[6] 'To some extent the book seems to suffer from inadequate familiarity with much of the more recent academic literature'—and so on. It should be defended as an honest attempt to cut through what the authors saw as the nonsense in 'much of the more recent academic literature', and find out how the monetary economy actually behaves. A more serious question may be whether the real world itself is changing, and changing in ways that make classical economics more relevant.

VII

Having completed his critique, Christopher embarked on the project which culminated in his book on major recessions.[7] This book, like the others, is about history; yet, as before, the aim is not principally to write a narrative. He uses a number of case studies to seek an explanation of why major recessions happen, and to understand their consequences as well. His examples are mainly British, two inter-war and three post-war, as well as the depression of the 1930s in America. Yet the scope of the book is so wide that by the end it has covered most of the twentieth century and a large part of the world economy, in passing if not in equal depth.

The study centres on the major recessions, but its aim is more ambitious than its title suggests. It seeks to explain, within a common theory, the determinants of both long-term growth and short-term fluctuations in output—a notoriously difficult thing to do. Christopher was convinced that the two are not independent of each other. Indeed he starts from the observation that the trend of output growth is roughly constant between major recessions; thus, the fact of the three major recessions since the early 1970s explains why, on average, the growth of output since then has been slower than it was before.

The more orthodox view is that the trend of output depends on such factors as technical progress which proceed at a more-or-less constant rate through good times and bad. After a recession, on this view, the equilibrating forces of a market economy will produce a spontaneous

[6] By David Cobham in the *Economic Journal,* 99 (March 1989).

[7] Dow, Christopher, *Major Recessions, Britain and the World, 1920–1995* (Oxford, 1998).

recovery sufficient to bring output back onto the previous trend line. Christopher did not believe that these self-righting properties were effective in the aftermath of a major recession. Once the shock that produced the recession was over, he would expect the economy to resume its trend growth rate from the low point it had reached, and the level of unemployment would also remain high for the indefinite future. There was no equilibrium *level* of output, only a normal rate of growth. Looking at a few charts of output and unemployment for Britain and the rest of Europe after the recessions of the mid 1970s and the early 1980s, one has to agree that Christopher's interpretation seems to fit these facts.

The method of explaining major recessions in this study is similar to that used to estimate the effects of policy in *The Management of the British Economy*. One can calculate what the course of output would have been in, say, 1974 if fiscal and monetary policy, somehow defined, had been the same as in some base period. A similar calculation is possible with respect to the growth rate of world trade or the increase in import prices. Thus contributions to the depth of the recession can be attributed to these factors and they can all be added up to provide a quantified explanation. If one could examine a sufficient number of such cases one might be able to generalise about the sort of shocks which usually cause major, or indeed minor, recessions.

The problem is that each recession is individual and peculiar in origin. No generalisations can be made from just a handful of cases. What emerges is an interpretative narrative, rather than a general theory. Moreover, the interpretation is itself incomplete: no explanation can be offered for the most recent recession, the one at the start of the 1990s. It can only be attributed to unquantifiable confidence effects associated with the excessive expansion of demand in the preceding boom. This failure to account for one out of five major British recessions throws some doubt on the adequacy of the explanations of the rest.

Christopher recognised the limits of what could be done:

> Use of such methods does not permit conclusions that can claim anything close to certainty. They have indeed obvious limitations: 'qualitative evidence' does not in fact settle issues any more than do statistics.[8] In some cases it has been possible to construct what seems a plausible and complete explanation, though

[8] At this point there is a footnote reference to the famous monetary history of the United States by Friedman and Schwartz, where the method adopted is rather similar. It is sobering to reflect that the use of a similar method by careful scholars who begin from such different theoretical assumptions can lead to such radically different conclusions.

> one that is still disputable; in others the explanation proposed seems incomplete, or especially speculative and insecure. But there is no reason why one should always be able to say why events occur. The spirit of the study therefore will not be to strain unnaturally at complete answers but to see virtue in remaining sceptical.[9]

This quotation sums up well his assessment of what applied economics can achieve. Latterly he was disappointed by the inconclusive results of econometric research. He thought it was wrong to expect economists to find answers to every question that was posed. He had also become quite pessimistic about the possibility of achieving the objectives of economic policy—especially full employment. It was much easier to maintain full employment once it had been secured than to restore it once it had been lost. He said this of his own views on policy: 'Though Keynesian in tinge, they will not I think seem over-hopeful, as Keynesian views are often taken to be' (p. 10). As he was preparing his book for the press he thought that another major recession might be imminent, although he would have been the first to admit that such events are difficult to predict.

The book concludes with a plea for continuous vigilance. The authorities *can* do much to prevent major recessions, or to moderate their scale, but they must act promptly and decisively. The must not allow the boom conditions to develop which so often precede an output fall. They must be especially concerned with the growth of bank lending, and revert to direct methods of control if all else fails. The main challenge for economic policy is still to avoid major recessions whilst also keeping inflation under control.

It was not an optimistic book, in the sense that *The Management of the British Economy* had been. Its tone is often defensive, because the views expressed are no longer generally accepted. But it is an impressive book, for the same reasons as its predecessor. It is meticulous, never cutting corners or glossing over the difficulties. It is supported by a breadth of historical experience, as well as close attention to the particular episodes. It is well organised, a pleasure to read, and the arguments are clearly and cogently put. It is a fitting conclusion to his life's work.

[9] Dow, *Major Recessions*, p. 4.

VIII

Christopher said of his return to the National Institute that 'no base could have been more congenial'. Certainly he was a congenial colleague. As well as the two major studies described above he had other irons in the fire. He continued to monitor the domestic and the world economy with keen interest, preparing a regular circular for Leopold Joseph. In this he often, but not always, supported the views expressed in the Institute *Review*. His range became broader, rather than narrower, over time. He took a keen interest in the emerging market economy in China and would have liked to write a book on that subject as well. But perhaps the writing to which he attached most importance, apart from his two books, was the Keynes Lecture for the British Academy in 1990 on the subject of real wages and employment.[10] (He had been elected as a Fellow in 1982.)

In this lecture, as in his other writings, Christopher was seeking a basis for his macroeconomics in the theory of imperfect competition. He could never accept the assumption of perfect competition, so often made by economists of the 'new classical' school. This applied to the labour market, just as it did to the banking sector and to the pricing decisions of most large firms. Moreover, the determination of *real*, as opposed to nominal, wages depended on the way in which firms set prices as much as on the way in which they negotiated over wage rates.

Faced with real wages that are too high, firms can respond by raising their prices, but only if demand is adequate to sell their product at the higher price. Hence, it is the inadequacy of demand, and not the level of real wages, which explains persistent unemployment. Both in terms of its subject matter, and in terms of its argument, this lecture harks back to his first publications in the 1950s. One distinguished friend and colleague has commented that 'Christopher was a darned good economist who was not taken in by bad theory'.[11] Christopher would have liked that as an epitaph.

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Note. I am grateful for help and comments from many of Christopher's friends and colleagues, too many to mention each by name.

[10] Dow, J. C. R., 'The High-Wage Theory of Unemployment, Theory and British Experience, 1970–89', *Proceedings of the British Academy, 1990* (Oxford, 1991).
[11] Frank Hahn in a personal letter.