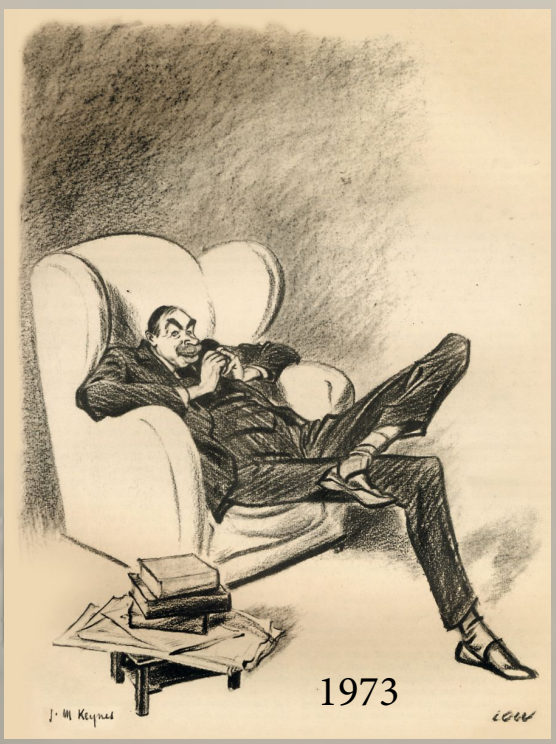
After Keynes

Papers presented to Section F (Economics) at the 1972 Annual Meeting of the British Association for the Advancement of Science

Edited by Joan Robinson



1973

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Foreword

THE PAPERS READ at the meeting of Section F of the British Association in 1972 bear in various ways upon the central question: What has become of the Keynesian revolution?

Looking back over forty years of the development of economic theory is rather sad. At the time it seemed that Keynes, along with Michal Kalecki who discovered the main ideas of the *General Theory* independently, had won a decisive victory in the theoretical argument. Keynes' 'long struggle to escape' had broken out of the cocoon of timeless equilibrium and emerged into history, where today is an ever-moving break between an irrevocable past and an uncertain future.

Keynes himself repudiated Ricardo because Ricardo's scheme of ideas left no room for the problem of effective demand and he never managed to read Marx, but the Keynesian revolution in fact links modern analysis with the classical and Marxian treatment of accumulation as an historical process. Kalecki's version of the theory of employment was erected on the base of the Marxian analysis of an expanding capitalist economy.

The Marxists, however, view Keynes with distrust while the academics, for the most part, have succeeded in wrapping themselves up again in the equilibrium cocoon.

Elizabeth Johnson's paper shows Keynes as a reformer but at the same time brings out the social attitudes that put the Marxists off.

Fritz Schumacher attacks the model-builders who have tried to reduce economics once more to a mechanical system. His paper gave rise to an animated discussion at the meeting. Laymen in the audience were immediately on the speaker's side but some of the professional economists were shocked and reacted with indignation. As the argument went on, more and more points were conceded to Schumacher, except by the hard core of professionals who were still shouting at each other when the meeting broke up.

The Lister Lecture, which follows, provides a clear illustration of the extent to which Keynes has been smothered in academic teaching. Professor Laidler refers to 'orthodox' and 'traditional' doctrines which seem to be based on the pre-Keynesian quantity theory of money, which he takes so much for granted that he does not even defend it.

This lecture is also a remarkably neat illustration of the progression from Generalisation to Assumption to Assertion to Norm, described by Schumacher.

The remaining papers give a somewhat more hopeful answer to the question Does Economics Help?

It does help provided it is kept in its proper place. F. T. Blackaby discusses inflation in its human and political setting.

Keynes showed that the price level in terms of money, in a modern industrial economy, is governed by the level of money-wage rates. Without this essential economic insight, the politics of the problem could not be understood.

Michael Kennedy's paper shows how statistical expertise, economic analysis and political judgment can be combined to help us to understand how employment policy has worked out in practice.

Professor Wilson shows how detailed historical research into contemporary problems (for the present is part of history) can be useful in guiding social policy.

To sum up, economics is *some* use, but it would have been a great deal more if the Keynesian revolution had really succeeded.

Joan Robinson

1

What has become of the Keynesian Revolution?

Joan Robinson*

I

WHAT WAS the dominant orthodoxy against which the Keynesian revolution was raised? *The General Theory of Employment Interest and Money* was not published till 1936 but the revolution began to stir in 1929, lurched forward in 1931 and grew urgent with the grim events of 1933.

In those years British orthodoxy was still dominated by nostalgia for the world before 1914. *Then* there was normality and equilibrium. To get back to that happy state, its institutions and its policies should be restored—keep to the gold standard at the old sterling parity. balance the budget, maintain free trade and observe the strictest laissez faire in the relations of government with industry. When Lloyd George proposed a campaign to reduce unemployment (which was then at the figure of one million or more) by expenditure on public works, he was answered by the famous 'Treasury View' that there is a certain amount of saving at any moment, available to finance investment, and if the government borrows a part, there will be so much the less for industry.

In 1931, when the world crisis had produced a sharp increase in the deficit on the U.K. balance of payments, the appropriate remedy (approved as much by the unlucky Labour government as by the Bank of England) was to cut expenditure so as to balance the budget. These were the orthodox views that prevailed in the realm of public policy.

In the realm of economic theory, orthodox doctrine comprised two distinct branches—*Principles* and *Money*. In the department of Principles, the main topic was the behaviour of markets under the influence of supply and demand and the determination of the

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relative prices of commodities and the relative earnings of 'factors of production'. In so far as there was anything that would nowadays be called a macro theory, that is, an analysis of the operation of the economy as a whole, it was dominated by the conception of a natural tendency to equilibrium under the free play of market forces. *General* unemployment was a contradiction in terms.

Marshall had a foxy way of saving his conscience by mentioning exceptions, but doing so in such a way that his pupils would continue to believe in the rule. He pointed out that Say's Law—supply creates its own demand—breaks down when there is a failure of confidence, which causes investment to fall off and contraction to spread from one market to another. This was mentioned by the way. It was not meant to disturb the general faith in equilibrium under laissez faire.

The department of monetary theory was quite different. This dealt with the general price level and had to include awkward subjects like inflation and the trade cycle. According to this theory movements in prices were determined by changes in the quantity of money. It is a strange fact that, when it came to pronouncing in public affairs, the economists everywhere derived their advice from the department of Principles and forgot all about Money. In those days (unlike now) the leading symptom of a recession was a fall in prices. If all that was needed to raise prices, and so get production going again, was to print some bank notes, why did not the economists advise their governments to do so at once? No. The money cranks were saying: It can all be done with a fountain pen, but the orthodox economists thought them very wrong. The orthodox line was that nothing can be done, that nothing should be done; that in good time, equilibrium will be restored.

Keynes started life as a monetary economist. When he was working on his *Treatise on Money*, he thought that he had to be concerned strictly with the general price level. He rejected the suggestion that his subject was connected with the problem of unemployment. But in 1929 he had descended from this high theoretical plane to practical policy, supporting Lloyd George's campaign for public works. The pamphlet which he wrote with Hubert Henderson, *Can Lloyd George Do It?*, sketches out the theory that investment generates saving, so that a budget deficit can reduce unemployment without generating inflation.

The analysis is very sketchy. R. F. Kahn took it up, worked out the theory of the multiplier in a more coherent manner, and per-

suaded Keynes that he and Henderson had been perfectly right. The ink was not dry on the first copies of the *Treatise* before Keynes began to acknowledge that employment was after all the central point. The quantity of money fell into place in the theory of interest rates. Changes in activity were seen to be governed by changes in expenditure on investment and the purchase of consumption goods. The price level had nothing to do with banking policy, it depended on money-wage rates. So the old dichotomy was broken down and 'monetary theory' was absorbed into the analysis of output as a whole.

Meanwhile the Nazis had been proving Lloyd George's point with a vengeance. It was a joke in Germany that Hitler was planning to give employment in straightening the Crooked Lake, painting the Black Forest white and putting down linoleum in the Polish Corridor. The Treasury view was that his unsound policies would soon bring him down. But the little group of Keynesians was despondent and frustrated. We were getting the theory clear at last, but it was going to be too late.

II

There will soon be an account in the latest volume of the *Collected Writings of John Maynard Keynes* of the upheavals and reformulations that led from the *Treatise* to the *General Theory*. It will be seen that there were moments when we had some trouble in getting Maynard to see what the point of his revolution really was, but when he came to sum it up after the book was published he got it into focus.[1]

On the plane of theory, the revolution lay in the change from the conception of equilibrium to the conception of history; from the principles of rational choice to the problems of decisions based on guess-work or on convention.

> In traditional teaching, it was assumed 'that the amounts of the factors of production in use were given and that the problem was to determine the way in which they would be used and their relative rewards.'

[1] 'The General Theory of Employment', *Quarterly Journal of Economics*, February 1937.

Keynes's contemporaries 'like their predecessors were still dealing with a system in which the amount of the factors employed was given and the other relevant facts were known more or less for certain. This does not mean that they were dealing with a system in which change was ruled out, or even one in which the disappointment of expectation was ruled out. But at any given time facts and expectations were assumed to be given in a definite and calculable form; and risks, of which, though admitted, not much notice was taken, were supposed to be capable of an exact actuarial computation. The calculus of probability, though mention of it was kept in the background, was supposed to be capable of reducing uncertainty to the same calculable status as that of certainty itself.'

Keynes drew a sharp distinction between calculable risks and the uncertainty which arises from lack of reliable information. Since the future is essentially uncertain, strictly rational behaviour is impossible; a great part of economic life is conducted on the basis of accepted conventions.

'Knowing that our own individual judgment is worthless, we endeavour to fall back on the judgment of the rest of the world which is perhaps better informed. That is, we endeavour to conform with the behaviour of the majority or the average. The psychology of a society of individuals each of whom is endeavouring to copy the others leads to what we may strictly term a *conventional* judgment . . . Being based on so flimsy a foundation, it is subject to sudden and violent changes. The practice of calmness and immobility, of certainty and security, suddenly breaks down. New fears and hopes will, without warning, take charge of human conduct. The forces of disillusion may suddenly impose a new conventional basis of valuation. All these pretty, polite techniques, made for a well-panelled board room and a nicely regulated market, are liable to collapse. At all times the vague panic fears and equally vague and unreasoned hopes are not really lulled, and lie but a little way below the surface . . .

Though this is how we behave in the market place, the theory we devise in the study of how we behave in the market place should not itself submit to market-place idols. I accuse the classical economic theory of being itself one of these pretty, polite techniques which tries to deal with the present by abstracting from the fact that we know very little about the future.'

The existence of money is bound up with uncertainty, for interest-earning assets would always be preferred to cash if there was no doubt about their future value. In this light, the nature of interest becomes clear. Keynes was able to resolve a deep-seated confusion in traditional teaching by emphasising the distinction between the rate of interest, as the price of finance, and the rate of profit expected on an investment, for which he unfortunately devised a new term—*the marginal efficiency of capital.*

> It is uncertainty that accounts for 'the liability of the scale of investment to fluctuate for reasons quite distinct (a) from those which determine the propensity of the individual to *save* out of a given income and (b) from those physical conditions of technical capacity to aid production which have usually been supposed hitherto to be the chief influence governing the marginal efficiency of capital.'

Once we admit that an economy exists in time, that history goes one way, from the irrevocable past into the unknown future, the conception of equilibrium based on the mechanical analogy of a pendulum swinging to and fro in space becomes untenable. The whole of traditional economics needs to be thought out afresh.

After the war, Keynes theory was accepted as a new orthodoxy without the old one being rethought. In modern text-books, the pendulum still swings, *tending* towards its equilibrium point. Market forces allocate given factors of production between alternative uses, investment is a sacrifice of present consumption, and the rate of interest measures society's discount of the future. All the old slogans are repeated unchanged.

How has this trick been worked? First of all, simplifications in Keynes's own exposition, which were necessary at the first stage of the argument, have been used to smooth the meaning out of it. Keynes sometimes talked of total output at full employment as though it was a simple quantity. Obviously, the maximum output that can be produced in a given situation depends on the productive capacity in existence of plant and equipment for labour to be employed with, and productive capacity exists in concrete forms available for producing particular kinds of output. The notion of 'the level of investment that will ensure full employment' presupposes the existence of productive capacity for investment and consumption goods in the right proportions.

Moreover, it presupposes a particular ratio of consumption to investment. But the level of consumption from a given total income depends upon its distribution between consumers, and this depends on the distribution of wealth among households, the ratio of profits to wages, relative prices of commodities and the system of taxation.

All this is ignored in the vulgarised version of Keynes' theory. At any moment, the text-book argument runs, there is a certain amount of saving per annum that would occur at full employment. Let the government see to it that there is enough investment to absorb that amount and then all will be well.

So we return to the classical world where accumulation is determined by saving and the old theory slips back into place. But here there is a difficulty. Investment every year is to be just enough to absorb the year's savings. What about the new equipment that it creates? Will that be just enough to employ the labour then available, when investment is absorbing saving next year? The long-period aspect of investment, that it creates capital goods, must be considered as well as the short-period aspect, that it keeps up effective demand.

Never mind! Never mind! Cry the bastard Keynesians. We can pretend that capital goods are all made of putty. They can be squeezed up or spread out, without trouble or cost, to give whatever amount of employment is required. Moreover, there is no need to worry about mistaken investments or about technical change. Not only the putty added this year, but the whole lot, can be squeezed into any form that is needed so as to re-establish equilibrium instantaneously after any change.

There has been a lot of tiresome controversy over this putty. The bastard Keynesians try to make out that it is all about the problem of 'measuring capital'. But it has nothing to do either with measurement or with capital; it has to do with abolishing time. For a world that is always in equilibrium there is no difference between the future and the past, there is no history and there is no need for Keynes.

III

The other half of the Keynesian revolution was to recognise that, in an industrial economy, the level of prices is governed primarily by the level of money-wage rates.

To clear some details out of the way, let us first look at Keynes's theory of the behaviour of prices with given wage rates. First, he accepted the idea of competitive market prices. Neither Roy Harrod nor I could get Maynard to take an interest in 'marginal revenue'. He therefore had to find an explanation of the obvious fact that prices do not immediately fall to the level of average prime cost whenever sales are below full capacity output. This was the point of 'user cost'. The modern concept of gross profit margins as a mark-up on prime cost would really have suited him much better. Second, following Marshall's notion of 'cost at the margin', he took it for granted that there is a tendency for prices to rise somewhat with an upswing in activity and to fall in a recession, when money-wage rates do not change. This was a question of empirical fact that had no particular logical importance in the theory; it led to unnecessary complications in the definition of 'involuntary unemployment' and it led to the view that a rise in employment normally leads to a fall in the level of real-wage rates, which Keynes had to emphasise was by no means the same as the view that a fall in real wages causes an increase in employment. Thirdly, in the *Treatise* Keynes made a great point of the shift to profit that occurs when effective demand rises. He did not deny this in the *General Theory* but there he generally dealt with a rise in incomes overall without much emphasis on distribution.

These are all minor points compared to the main argument, that the level of prices in terms of money is a reflection of the level of money-wage rates.

This was a greater shock to notions of equilibrium even than the concept of effective demand governed by volatile expectations. The level of money wages in any country at any time is more or less an historical accident going back to a remote past and influenced by recent events affecting the balance of power between employers and trade unions in the labour market.

Then there is no meaning whatever in the idea of an equilibrium value of money. This was such a blow to orthodox ideas that almost all those who were ready to welcome the Keynesian diagnosis of unemployment somehow refused to take it in until it became too painfully obvious to be ignored any longer.

I believe that the extraordinary revival of the quantity theory of money in recent years (in an even more hollow form than of old) must be accounted for by the longing to have some kind of theory that provides something to tether the value of money to, some

defence against the horrid thought that under laissez faire the private-enterprise system does not tend towards equilibrium in any way at all.

There was another attempt to tame Keynes's theory of prices and bring it into the orbit of a mechanical analogy—that was the late-lamented Phillips curve. It is obvious enough that a *rise* in wage rates occurs more often after a recent *rise* in the level of employment than after a fall. When employment has recently risen, bargaining power of trade unions has improved, there has been an increase in profits, and often an increase in the cost of living. In a buoyant market, employers are reluctant to lose output through a strike and are confident of being able to recover costs by raising prices if they have to grant a rise in wages. On the other hand, in a deep slump, when there is heavy unemployment and at the same time real wage rates for those in work have recently improved because of reduced prices of primary products, wage rates rarely rise and may even be cut in some cases.

From a hasty run over of the statistics reflecting this historical experience is derived an econometric *law* relating the level of unemployment (not changes in it) to changes in wage rates. From this can be read off the amount of unemployment associated with a constant level of prices, and then policy can be framed in terms of the 'pay off' between unemployment and inflation.

The simplicity of this faith in the econometrician's magic numbers is matched by the remarkable cynicism of the proposals derived from it.

Perhaps the publicity given to the Phillips curve contributed to falsifying its predictions. It was natural for the trade unions to resolve to demonstrate that it is not true that when a certain proportion of their members are unemployed they are incapable of demanding higher wages. However that may be, it is clear enough that the 'pay off' is a cheat. We can have a recession and say goodbye to full employment without inflation being any the less.

Already before the war, Keynes was pointing out that wage-bargaining in conditions of continuous near-full employment was going to present an extremely awkward political problem. Now everyone agrees with the theory, but the political problem has not become any easier to solve.

IV

What about the influence of the *General Theory* on practical affairs?

There is a kind of simple-minded Marxist who has a great resentment against Keynes because he is held responsible for saving capitalism from destroying itself in another great slump. This is often made an excuse for not understanding the theory of effective demand, although Michal Kalecki derived pretty well the same analytical system as Keynes from Marx's premises. Moreover it implies that capitalists are so stupid that they would fail to learn from their experiences during the war that government outlay maintains profits, unless they had Keynes to point it out to them.

But what was the political tendency of the *General Theory*? Keynes himself described it as 'moderately conservative' but this was intended as a paradox for the whole book is a polemic against established ideas. His own mood often swung from left to right. Capitalism was in some ways repugnant to him but Stalinism was much worse. In his last years, certainly, the right predominated. When I teased him about accepting a peerage he replied that after sixty one had to become respectable. But his basic view of life was aesthetic rather than political. He hated unemployment because it was stupid and poverty because it was ugly. He was disgusted by the commercialism of modern life. (It is true he enjoyed making money for his College and for himself but only as long as it did not take up much time.) He indulged in an agreeable vision of a world where economics has ceased to be important and our grandchildren can begin to lead a civilised life.

At the time when the *General Theory* was being written, Keynes, projecting the situation of the slump into the future, threw out the suggestion that the need for accumulation could be overcome in thirty years of investment at the full-employment level, provided that wars were avoided and population ceased to grow. (He was taking an insular view. The Third World had not yet come to mind.) Alvin Hansen took this up and turned it into a horror story. With the closing of the frontier in North America, there would not be sufficient outlets for the saving that capitalism generates and chronic stagnation will set in. This was not Keynes's attitude. He welcomed the euthanasia of the rentier. He was only afraid that the prospect might

be spoiled by failure to get the rate of interest to fall fast enough. This part of the argument in the *General Theory* is not at all clear. It seems to contain an undigested lump of what Keynes called classical theory. In a long-run sense the 'marginal efficiency of capital' means both prospective profits to a business and the real usefulness of investment to society. There is no hint that these might not always be the same thing. But, in any case, Keynes is arguing that, if a private-enterprise system cannot deal with potential abundance, we must turn it into a system that can. Certainly, the last chapter of the *General Theory* tries to make out that such a change could be easy and painless but it does not suggest, like Hansen, that if capitalism is incompatible with plenty, plenty ought to be sacrificed to keep capitalism going.

Of course, it has all turned out to be a daydream. The twenty-five years after the war that passed without a major recession has been called the Age of Keynes, but it was not much like his vision. It turned out closer to Kalecki's sardonic description of the regime of the political trade cycle.

Unemployment is a reproach to a democratic government. When it gets too big, steps are taken to reduce it. Besides, unemployment is associated with low profits. But when unemployment falls too low, inflation sets in. So policy is always alternating between go and stop. This is not using resources for rational ends; it is making employment, or rather avoiding *much* unemployment, an end in itself.

When we were up against sound finance and the Treasury view, we had to argue that any expenditure is better than none. Dig holes in the ground and fill them again, paint the Black Forest white; if men cannot be paid wages for doing something sensible, pay them to do something silly.

> ' "To dig holes in the ground", paid for out of savings, will increase, not only employment but the real national dividend of useful goods and services. It is not reasonable, however,' Keynes adds 'that a sensible community should be content to remain dependent on such fortuitous and often wasteful mitigations when once we understand the influences upon which effective demand depends.'[2]

As it has turned out, employment has been kept up by expedients that are not just silly. The self-styled Keynesians in the United States

[2] *General Theory*, p. 220.

boast of having overcome the rule of sound finance. The consequence has been to facilitate deficit expenditure on armaments; it has helped to keep up the cold war and promoted hot wars here and there around the world.

Now, it seems that the bastard Keynesian era is coming to an end in general disillusionment; the economists have no more idea what to say than they had when the old equilibrium doctrine collapsed in the great slump. The Keynesian revolution still remains to be made both in teaching economic theory and in forming economic policy.

2

John Maynard Keynes: Scientist or Politician?

Elizabeth Johnson*

JOHN MAYNARD KEYNES—scientist or politician? The reader of the popular press of a generation ago would have had no doubt of the answer. Keynes, a swinging weather-vane of a man, was the most unscientific of individuals—a cartoonist's dream. He was Keynes the india-rubber man: the *Daily News and Chronicle* of 16 March 1931, carried an article headed 'Economic Acrobatics of Mr. Keynes' and illustrated it by a sketch of 'A Remarkable Performance. Mr. John Maynard Keynes as the "boneless man" turns his back on himself and swallows a draught'—the draught, a glass marked '15% Protection'. After years of preaching the virtues of free trade, he had first announced the end of laissez-faire and now urged a revenue tariff on the country. As an exasperated political opponent remarked on another occasion—complaining of the man who in 1925 said wage costs were too high and in 1929 wanted higher prices— 'It is difficult to reconcile Mr. Keynes the politician with Professor Keynes the economist. He seems to be both right and wrong!'[1]

Keynes himself had no such difficulty. In his own opinion, he was always right. He had a clear idea of his own role in the world; he was the economist—at first Cassandra, croaking prophesies of doom about the economic consequences of reparations and the gold standard, prophesies which came all too true— and then as he gathered stature, the chief economic adviser to the world, to the Chancellor of the Exchequer of the day, to the French Minister of Finance whoever he was, to the President of the United States. To elaborate, Keynes the economist initially thought of himself as the educator, the persuader, the man who would assemble all the rele-

* An editor of the individual volumes in the collected writings of Lord Keynes now in the course of publication.

[1] Letter, 'War Minister and Mr. Keynes', from Sir Laming Worthington-Evans (Secretary of State for War), *Evening Standard*, London, 6 May 1929.

vant information and thereby start the reverberation of publie opinion that would eeho baek to the politieians who, he said, 'have ears but no eyes'.[2] Then as he beeame established as an expert, he eame to think of himself more as the economic seientist, the technician, the meehanie who is ealled in to fix the maehine when the self-starter is broken. He looked forward to the time when eeonomists would be eonsulted like dentists, and hailed President Roosevelt as the first head of state to take theoretieal advice as the basis for large-scale aetion.

'For the next 25 years in my belief,' he wrote in 1932, 'economists, at present the most ineompetent, will be nevertheless the most important, group of seientists in the world. And it is to be hoped—if they are sueeessful—that after that they will never be important again.'[3]

Keynes had a generally low opinion of politieians as eharlatans who manipulated the publie with their propaganda and obstinately elung to the aeeepted shibboleths until the winds of ehange forced them to taek. He knew himself to be an intellectual and a scientist, but he was a very *political* eeonomist, addressing himself to the big problems of his time. As the high tide of the nineteenth eentury ebbed away and the waves of the twentieth eame rolling in, as the world struggled out from the aftermath of the 1914–18 war with its old antagonisms and old sovereignties, the new hopes of peaee and progress were bogged down by old debts and old habits. Poverty stood in the midst of what should have been plenty, and in Britain, less hard hit than Germany or the United States, one quarter of the working population was unemployed. How was the world to get out of this mess? In Britain what eould be left to the individual and what must be done by the state? No longer would 'private ambition and eompound interest . . . between them earry us to paradise';[4] the system eould no longer be trusted to eorrect itself. The problems were political problems and for Keynes they were intelleetual ones.

For all that, he was a natural politieian. He inherited the Liberal polities of his parents and at Cambridge was a Liberal president of the Union. During the early part of his life he often appeared on the

[2] 'Reeonstruetion in Europe. An Introduetion', *Manchester Guardian Commercial, Reconstruction in Europe II,* Manehester, 18 May 1922, p. 66.
[3] 'The Dilemma of Modern Socialism', *Political Quarterly,* London, Vol. III, April-June 1932, pp. 155–61.
[4] 'Liberalism and Industry', chapter in *Liberal Points of View,* edited by H. L. Nathan and H. Heathcote Williams, London, Ernest Benn, 1927, pp. 205–19.

platform to speak for Liberal candidates. He was asked to stand for election himself many times—by all three parties— but he preferred the more powerful background role of expert counsellor and adviser. Yet he had, in fact, so many of the traits of the politician and they seemed to come so naturally and were so much a part of his personality that it is hard to think that they could not have influenced his advice.

He was an opportunist who reacted to events immediately and directly, and his reaction was to produce an answer, to write a memorandum, and to publish at once. He was into everything, be it the German mark or the French franc, birth control, the Lancashire cotton trade, buying British, economic sanctions, compulsory savings for a joyful hereafter. In the World War II Treasury he nearly drove some of his colleagues crazy with his propensity to keep a finger in every pie. 'Don't just stand there, do something', would have been his present-day motto. Discussing unemployment in 1930 he said: 'If we just sit tight there will be still more than a million men unemployed six months or a year hence. That is why I feel that a radical policy of some kind is worth trying, even if there are risks about it.'[5] Both Conservative and Labour governments—in the 'fatalistic belief that there never can be more employment than there is', as Keynes said[6]—sat tight over the twenties and thirties, instructed by the civil servants of the Treasury school whom he once characterised as 'trained by tradition and experience and native skill to every form of intelligent obstruction'.[7]

Keynes instead was ready with ideas—ideas of his own, and the current ideas of others that he made his own—and ready with recipes for trying them. They were practical, inventive solutions—such as his proposal to use legislation, originally framed to permit the government to stock-pile war materials, for the additional purpose of minimising price fluctuations. Characteristically, the proposal might be presented as a 3–, 4–, 5– or more-point agenda. He explored alternatives, giving what he considered the preferred order of adoption. Often he tied up a package deal; he was always happy if if he could pick off two birds with one stone and get in a little social

[5] 'Unemployment', a broadcast discussion with Sir Josiah Stamp, *Listener*, London, 26 February 1930, p. 383.
[6] 'Mr J. M. Keynes Examines Mr Lloyd George's Pledge', *Evening Standard*, London, 19 March 1929.
[7] 'Democracy and Efficiency', an interview with Kingsley Martin, *New Statesman and Nation*, London, 28 January 1939, p. 122.

benefit while solving an economic problem. He was always ready to commit himself to definite figures—unkind persons said that he made them up. Other people say that he was very good at making them up, that he had a sense, a feel, for what the right figure ought to be. In any case he cannot be blamed entirely for making up figures, for well into the 1920's there was a great scarcity of economically relevant statistics; it was Keynes who laid the foundations for providing this branch of economic information in Britain.[8]

In doling out his economic prescriptions it was Keynes's style to make a direct appeal to action—to governments, to heads of state (as in his Agenda for President Roosevelt) or to individual citizens. Often it was an appeal for internationally-concerted action. At the planning stage of the World Economic Conference of 1933 he urged all governments *simultaneously* to adopt programs of public spending, supported by gold certificates issued by the Bank for International Settlements, to restore world prosperity. 'What is the charm to awaken the Sleeping Beauty, to scale the mountain of glass without slipping? If every Treasury were to discover in its vaults a large *cache* of gold . . . would that not work the charm? Why should not that *cache* be devised? We have long printed gold nationally. Why should we not print it internationally? No reason in the world, unless our hands are palsied and our wits dull.'[9]

This call to action is typically phrased. As Keynes himself said: 'Words ought to be a little wild—for they are the assault of thoughts upon the unthinking.'[10] Talking on the radio about unemployment 1931, he hazarded the guess that whenever you saved five shillings, you put a man out of work for a day; on the other hand, whenever you bought goods, you increased employment. 'Therefore, Oh patriotic housewives,' he paeoned, 'sally out to-morrow early into the streets and go to the wonderful sales which are everywhere advertised. You will do yourselves good—for never were things so cheap, cheap beyond your dreams. Lay in a stock of household linen,

[8] To give two examples: In editing the *Manchester Guardian Commercial* 'Reconstruction in Europe' supplements in 1922, Keynes devoted several pages in each issue to following current trade fluctuations, making use of the London School of Economics and Harvard 'Business Barometers'. In the 1940s the establishment of a Department of Applied Economics at Cambridge owed much to his influence.

[9] 'The World Economic Conference 1933', *New Statesman and Nation,* London, 24 December 1932, p. 826.

[10] 'National Self-Sufficiency', *New Statesman and Nation,* London, 15 July 1933, part V.

of sheets and blankets to satisfy your needs. And have the added joy that you are increasing employment, adding to the wealth of the country because you are setting on foot useful activities, bringing a chance and a hope to Lancashire, Yorkshire and Belfast.'[11]

I have not consulted the contemporary newspapers to learn whether this appeal showed up in the department stores' takings in the January sales, but one result is recorded—the cartoonists had a field day depicting the middle class 'little woman' sallying forth on a spending spree, loading up hubby with parcels and saddling it all on Mr Keynes. Were these words a little too wild? In a radio discussion two years later Keynes was careful to explain the difference between hoarding and *useful* saving.

But I should give you the rest of the quotation about words. Keynes finished it by adding, 'But when the seats of power and authority have been attained, there should be no more poetic licence.'

He liked to call for timely action—*now is the time* to buy sheets, to appoint a board, to settle the world's currency system—and he had his favourite words. He was fond of using the phrases 'the prospects for' and 'the progress of', and the word 'consequences' in his titles. He was always ready to present his 'drastic remedy' or his 'radical plan' or to approve a 'bold measure'—he fancied himself as the *enfant terrible*. He was optimistic—where others saw the beginning of a long industrial decline he felt the country was 'in the middle of a painful adjustment'.[12] Addressing international delegates to a meeting of the National Council of Women (his mother was president) in June 1930, he explained that England was suffering 'from a sort of *malaise* of wealth'—saving money faster than she was spending it, economising on the use of labour faster than finding outlets for it, raising the standard of living a little too fast—and he described these phenomena as 'the growing pains of progress, not the rheumatism of old age'.[13]

On this occasion he talked of England's social achievements, in which he took pride. He had a strong vein of patriotism, in spite of his internationalism during the twenties. He was perpetually fussing about the possibility that British lending abroad was diverting funds from investment in home industry. (Was he sub-consciously, like the

[11] 'The Problem of Unemployment' (broadcast talk), *Listener*, London, 14 January 1931, p. 46.
[12] Letter, 'Investments Abroad', *The Times*, London, 13 March 1930.
[13] Reported in 'The Prosperity of England. Mr. Keynes's Reassuring Picture', *Manchester Guardian*, Manchester, 28 June 1930.

Colonel in 'Dr. Strangelove', worrying about the sapping of 'precious bodily fluids'?) He did not want to see his country become a *rentier* nation and miss out on the action, he had his own ideas about how Britain should honour her debts before devaluation, and he looked to her to take the intiative and leadership in all his international proposals.

He enthusiastically supported any leader who he thought could make the running. After the terrible things he had said about Lloyd George, that goat-footed Welsh Witch, in connection with the Treaty of Versailles, he supported him vigorously in the election of 1929 and wrote the pamphlet that became the textbook of the Liberal campaign.[14] When taxed with what he had said about Lloyd George's conduct of the Coupon Election, he replied: 'I oppose Mr. Lloyd George when he is wrong; I support him when he is right.' It was the same with Winston Churchill. And in December 1930 Keynes commended the enterprising spirit of Sir Oswald Mosley in putting forward a national economic plan,[15] but he did not write about Mosley after that.

He was flexible. Having, after much thought, deserted free trade to recommend a revenue tariff with all his might, the moment that England left the gold standard and made such a tariff economically unnecessary, he dashed off a letter to *The Times* calling attention to the now-primary importance of devising a sound international currency system; the discussion of domestic protection should wait until later, he said.[16] And as the rest of the country breathed a half-sigh of relief after painfully climbing out of the slump, he looked ahead in two articles in *The Times* to ask how to avoid a future occurrence of such a situation.[17]

Flexibility—or inconsistency? Inconsistency was the word that he was branded with. When he was attacked for coming over from free trade to a revenue tariff, he lampooned his critics:

'I seem to see the elder parrots sitting round and saying: "You can *rely* upon us. Every day for thirty years, regardless of the weather,

[14] *Can Lloyd George Do It? An Examination of the Liberal Pledge*, J. M. Keynes and H. D. Henderson, The Nation and Athenaeum, London, 1929; reprinted in *Essays in Persuasion*, Vol. IX, *The Collected Writings of John Maynard Keynes*, Macmillan St Martin's Press for the Royal Economic Society, London, 1972, pp. 86–125.

[15] 'Sir Oswald Mosley's Manifesto', *Nation and Athenaeum*, London, 13 December 1930, p. 367.

[16] Letter, 'After the Suspension of Gold', *The Times*, London, 29 September 1931.

[17] 'How to Avoid a Slump', *The Times*, London, 12 and 13 January 1937.

we have said, 'What a lovely morning!' But this is a bad bird. He says one thing one day and something else the next.'"[18]

Even Keynes's critics had to admit that he never tried to pretend when he changed his mind. And he usually explained just why he had done so. But he was not always so flexible. When he was still in his thirties he was youthfully uncompromising, insisting that the Treaty of Versailles must be revised, unwilling to live with it and accept it as a political necessity. As time went on, he became more amenable to compromise: 'My own view is that I want as much as I can get,' he wrote of a League of Nations proposal in 1930; 'but I do not want to wreck the whole project by asking for more than I can get.'[19] In the course of time he even came to tone down—publicly, that is—some of his caustic language. Writing to the literary editor of the *Daily Mail* about some small alterations that he wished to make in an article on England's war debts to America, 'chiefly with the object of avoiding strong language', he replaced the phrase, 'when one reads the rubbish reported from Congressmen, much of it altogether beneath the intelligence and dignity of human nature', by the much milder observation 'when one reads what Congressmen say to reporters'.[20]

Between the two wars he was very visible, energetic and vigorous, on the surface of English political life. Articles, pamphlets and books appeared perfectly timed for the opening of a conference, the preparation of a Budget—or perhaps the preparation of the public for the inevitable economic consequences of some past decision or event. The political pamphlets were priced at 6d. and 1/–; *The General Theory* sold for 5/–. Margot Asquith objected to the publication of the article on the American debts in the *Daily Mail:* 'You should have sent it to the Times, as those who read the Daily Mail are mostly in the Servants Hall. (I never take it in.)'[21] He was careful to send his articles, punctiliously presented, to *The Times,* the *Manchester Guardian,* the *Nation* and the *New Statesman;* at the same time he never missed an opportunity to publish the same material in more swashbuckling form in the *Daily Mail,* the *Daily Express* and the *Evening Standard.*

[18] 'Economic Notes on Free Trade II. A Revenue Tariff and the Cost of Living', *New Statesman and Nation,* London, 4 April 1931.
[19] Letter, 'The Draft Convention for Financial Assistance by the League of Nations', *Nation and Athenaeum,* London, 5 April 1930, p. 11.
[20] Unpublished letter to R. J. Frew (Literary Editor, *Daily Mail*), 10 December 1932, Keynes Papers, Marshall Library, Cambridge.
[21] Unpublished letter from Margot Asquith, 2 January 1933, Keynes Papers.

But as with every real politician nine-tenths of the iceberg was invisible. Only the small group of those in the know could have been aware of his leadership in 1920 in organising an appeal to the League of Nations for an international loan and also the first international conference of economic experts in Brussels—civil servants, not politicians; his part in the thinking and research which went into the Yellow Book that reviewed and restated the objects and aspirations of the ailing Liberal Party; the questioning that led to his adoption of the revenue tariff policy in the behind-doors Economic Advisory Committee, months before he expressed this change of heart in public; his crucial dominance of the Macmillan Committee of Inquiry into Finance and Industry. Also just like every practising politician he maintained contact with an extensive network of influential friends and acquaintances to whom he could go for help if necessary, because they would do the same with him. His correspondence files are almost a Who's Who for an era—not only in the fields of economics and politics, but also in society, literature and art. The day that he surfaced and was observed lunching alone with Ramsay MacDonald, the stock market rose.

All these characteristics show Keynes as a natural-born and highly efficient, ever-alert politician. With his Eton Pop, Cambridge Union background he was born to the purple, if this was what he wanted. Yet he insisted that politics was not his role, that he was more valuable in his chosen capacity as adviser. It was a case of emotion versus intellect; some of his contemporaries thought of him as an emotionless, coldly logical machine. Writing of Lloyd George's political craft with introspection into his own personality clearly in mind, he remarked: 'A preference for truth or for sincerity *as a method* may be a prejudice based on some aesthetic or personal standard, inconsistent, in politics, with practical good.'[22] In middle age he was able to write, 'I still suffer incurably from attributing an unreal rationality to other people's feelings and behaviour (and doubtless to my own, too).'[23] His radical approach—'The Republic of my imagination lies on the extreme left of celestial space'[24]—seemed to

[22] *A Revision of the Treaty*, Vol. III, *The Collected Writings*, 1971, Chap. 1, p. 2; also reprinted in *Essays in Persuasion*, Vol. IX, *The Collected Writings*, p. 34.
[23] 'My Early Beliefs', *Two Memoirs*, introduced by David Garnett, Rupert Hart-Davis, London, 1949; reprinted in *Essays in Biography*, Vol. X, *The Collected Writings*, 1972, p. 448.
[24] 'Liberalism and Labour', *Nation and Athenaeum*, London, 20 February 1926; reprinted in *Essays in Persuasion*, Vol. IX, *The Collected Writings*, p. 309.

destine him for the Labour rather than the Liberal camp, but he shied away from Labour dogmatism and anti-intellectualism. To proclaim any dogma as infallible and applicable in all cases, he said, debating the merits of the two parties, was voluntarily to shut oneself out from any scientific approach to economic problems by means of experiment and investigation.[25] Also the Labour Party was a class party, Keynes said, 'and the class is not my class . . . the *class* war will find me on the side of the educated *bourgeoisie*.'[26]

In considering Keynes one can never forget his social background. The son of cultivated, thrifty, donnish parents—nonconformist in outlook though not apparently overtly religious—brought up at the close of the nineteenth century in comfortable middle class Cambridge, polished and finished at Eton and King's, and sophisticated by Bloomsbury and the high-ranking civil service, making and losing a fortune and re-establishing himself again before he was forty—these were personal experiences that made him what he was. The man had a confidence, springing partly from his parents' established place in Cambridge society, but more powerfully from the consciousness of his own intellect which won him an even more exalted place in the outside world before he was thirty-five.

As the son of his philosopher father and socially-conscious mother he sought in politics a party that in the changing conditions of the time would create a society both economically just and economically efficient, while still preserving individual liberty.[27] He stayed with the Liberals, the party of his parents, by standing intellectually outside of it, despite his campaigning and committee work and participation in Summer Schools. From his parents he inherited the late Victorian nonconformist belief in the necessity and possibility of the improvement of society by the application of reason and the sense of obligation to one's social inferiors that went with it. (The same attitudes appear in the Fabianism of the Webbs, but Keynes seems to have regarded the Webbs as a little naive.)

Large-scale unemployment was the basic problem that Keynes came to focus on. His received view of the world was of a society in which each man had his appointed place, and it was an injustice for

[25] Liberal Summer School debate with Tom Johnston, M.P., reported in *Manchester Guardian*, Manchester, 4 August 1928.
[26] 'Am I a Liberal?', *Nation and Athenaeum*, London, 8 August 1925, p. 563; reprinted in *Essays in Persuasion*, Vol. IX, *The Collected Writings*, p. 297.
[27] 'Liberalism and Industry', chapter in *Liberal Points of View*, edited by H. L. Nathan and H. Heathcote Williams, London, Ernest Benn, 1927, pp. 205-19.

him not to be allowed to feed his family and retain his self-respect in fulfilling the task ordained for him. Economic theory then taught the belief that if there were not enough jobs, the labouring force would divide up the supply of work, driving down wages in the process—a hardship to the worker and no challenge to the employer to make himself more efficient, Keynes said. His solution, when he wrote 'The Question of High Wages' in 1930,[28] was to increase the workers' real wages by providing social services. He told a story about the little girl who, asked if the poor should be made like the rich, replied, 'No, it would spoil their characters.'[29] The story was offered tongue-in-cheek, but does one detect the social worker's instincts of his mother?

An achievement that gave Keynes great satisfaction was his wartime scheme for compulsory savings or, as he later chose to call it, 'deferred pay'. He considered that he had made it 'outrageously attractive' to the working class,[30] although the working class seem to have been singularly unenthusiastic about it. He regarded it, characteristically, not just as an expedient for financing the war but as an opportunity to demonstrate the difference between the totalitarian and the free economy. 'For if the community's aggregate rate of spending can be regulated, the way in which personal incomes are spent and the means by which demand is satisfied can be safely left free and individual . . . the only way to avoid the destruction of choice and initiative, whether by consumers or by producers, through the complex tyranny of all-round rationing . . . . This is the one kind of compulsion of which the effect is to enlarge liberty. Those who, entangled in the old unserviceable maxims, fail to see this further-reaching objective have not grasped, to speak American, the big idea.'[31]

Towards the end of *How to Pay for the War* he sums up the scheme as 'the perfect opportunity for social action where everyone can be protected by making a certain rule of behaviour universal.'[32] It is economically just, it is economically efficient—and the smell is

[28] 'The Question of High Wages', *Political Quarterly*, London, Vol. I, No. 1, January 1930, pp. 110–24.
[29] Letter, 'Mr Keynes's Lecture', *Manchester Guardian*, Manchester, 19 November 1929.
[30] Report of talk to Fabian Society, 21 February 1940, Keynes Papers.
[31] Letter, 'Mr. Keynes's Plan. Control of Boom and Slump', *The Times*, London, 10 April 1940.
[32] *How to Pay for the War: A Radical Plan for the Chancellor of the Exchequer* Macmillan and Co., London, 1940; reprinted in *Essays in Persuasion*, Vol. IX, *The Collected Writings*, p. 422.

undeniably paternalistic. Keynes grappled with the problems of the twentieth century, but he was born in a big house in Harvey Road, Cambridge, in 1883 and he never really extricated himself from the view of society and his own position therein, in which his parents had reared him.

Unemployment was a problem that according to orthodox theory should not exist, but it was the problem that would not go away. He grappled with it with a moral indignation and persistency that conjures up the spirit of another great grappler, John Bunyan, the subject of a biography by Keynes's maternal grandfather, the non-conformist minister John Brown. 'Is not the mere existence of general unemployment for any length of time an absurdity, a confession of failure, and a hopeless and inexcusable breakdown of the economic machine?' Keynes demanded in a radio dialogue with Sir Josiah Stamp. Stamp, so addressed, observed: 'Your language is rather violent. You would not expect to put an earthquake tidy in a few minutes, would you?'[33]

It took the years from 1923 to 1936 for Keynes to tidy up the theory of the earthquake. In an address on the occasion of the centenary of the death of Malthus, Keynes quoted Malthus himself on the relation of experience to theory, distinguishing between that partial or confined experience that a man gains 'from the management of his own little farm, or the details of the workhouse in his neighbourhood' —which is 'no foundation whatever for a just theory'—and 'that general experience, on which alone a just theory can be founded'. Keynes claimed for Malthus 'an unusual combination of keeping an open mind to the shifting picture of experience and of constantly applying to its interpretation the principles of formal thought'.[34] Here, in his emphasis on constant referral back to the facts, he stated his own ideal of how a social scientist ought to work.

As I have documented earlier in this paper, Keynes behaved from day to day in public like a working politician. In private he was deeply and seriously concerned with the science of economics. He kept coming back to the central problem that the existing theory would not explain. At first he was content to dazzle by demonstrating

[33] 'Unemployment', a broadcast discussion with Sir Josiah Stamp, *Listener*, London, 26 February 1930, p. 362.

[34] 'The Commemoration of Thomas Robert Malthus. The Allocutions. III. Mr. Keynes', *Economic Journal*, London, Vol. XLV, June 1935, p. 234; reprinted as 'Robert Malthus: Centenary Allocution', *Essays in Biography*, Vol. X, *The Collected Writings*, p. 108.

that a fuller knowledge of economic theory and statistics than his professional colleagues possessed would support different conclusions than their understanding of the economic orthodoxy had led them to. But eventually his intellectual honesty and his concern for economic science brought him to believe that it was not the incompetence of the orthodox economists that was at fault, but the received theory itself. Modifications within the framework of orthodox economics were not enough; a frontal attack on the framework itself was required.

So Keynes produced the General Theory as a proof—by the standards of the prevailing economic orthodoxy itself—that, contrary to orthodoxy, the normal state of economic society was not full employmet, but general unemployment. As a corollary, government policies to raise the level of employment were not mistaken and arbitrary interferences with a well-functioning and efficient economic machine; instead, government interference was absolutely necessary in order for the machine to work at all. Thus Keynes behaved as a scientist in the crucial sense: having found the existing body of scientific knowledge in economics increasingly unsatisfactory as a tool for solving the problems that he considered important, he produced a new and rival theory that would explain the discrepancies between the orthodoxy and the facts of observation—discrepancies which formerly had to be explained as special cases.

Recalling Malthus on partial and general experience, how much did Keynes's enthusiasms, his inventiveness, blind his science? One of his early reactions to unemployment was to put it down to overpopulation;[35] a critic accused him of letting his advocacy of birth-control affect his conclusions.[36] If he was less of a patriot would he perhaps have been so troubled by the idea of foreign lending? If his up-bringing had not inclined him to think of foreign food as less wholesome than home-grown or if he had not bought a Sussex farm for himself, and invested a lot of his college's money in a large farm estate in Lincolnshire, would he, after he reverted from his 1931 recommendation of a revenue tariff to his lifelong belief in free trade, have made an exception for tariff protection to agriculture? If his

[35] 'An Economist's View of Population', *Manchester Guardian Commercial, Reconstruction in Europe VI,* Manchester, 19 August 1922, pp. 340–41; 'Population and Unemployment', *Nation and Athenaeum,* London, 6 October 1923, pp. 9–11.

[36] 'Malthusian Moonshine', unsigned article, *New Statesman,* 22 September 1923, pp. 664–5.

father had been a docker, and not a well-to-do academic philosopher, how would he have dealt with unemployment?

Keynes's origins and place in society strongly influenced and limited his scientific thought. There is a passage in *The Economic Consequences of the Peace* where he describes the expectations of a man of his station in pre-1914 society: while he worked on his papers, sipping his morning tea in bed, other people cooked and washed and cleaned, providing all his wants—even if he needed money to travel, he could send his servant to the bank.[37] Keynes assumed, extrapolating from his own experience, that 'any man of capacity or character exceeding the average' could attain this position.

In the world as it was then, security and independence were the lot of a few; the housewives whom Keynes urged to go out and buy sheets were middle-class housewives with money in the bank to provide for the future. Yet in his ideal society he desired security and independence for everybody. However he could conceive of it only in terms of his own experience: social happiness was employment for everyone, each in his appointed place, his own niche.

Keynes, armed with all the advantages of his upbringing, believed unquestioningly that anyone in England with enough ambition could rise to his proper position in society. Nor did he have any question as to whether it was just for a man, who had risen as rapidly as he had, to be able to rely so implicitly on the full-time dutiful service of others who did not have those advantages. (What were the thoughts of the servant, who earned perhaps £1 a week, when he was sent to the bank to fetch £10 or £50? Keynes was fortunate if the servant, like himself, didn't bother his head about it.) Social injustice existed only in there not being enough jobs to go around. If there were servants with talents or character above their appointed stations, they deserved help, financial or advisory, from their betters; it was the obligation of the employer and ultimately the state to make it up to them in welfare benefits and other social transfers.

So that although Keynes thought of himself as a radical, one can see that he took a conservative, even an archaic, view of society. His 'radical' solution of government maternalism has now become the received orthodoxy. Even so, his social philosophy made a great leap forward: he said that it is wrong for a government to expect people to study, work hard, be honest and responsible, in order to fit

[37] *The Economic Consequences of the Peace*, Vol. II, *The Collected Writings*, 1971, Chap. II, pp. 6–7.

themselves for a place in a society presumed to be anxious to employ and make good use of them, when in fact the economic policy of that government precludes a large number of its citizens from having an opportunity for employment and a decent career; government has a responsibility to society to follow an economic policy that will satisfy these expectations.

We are left with two problems that did not trouble Keynes. We still have not solved the problem of equal opportunity, which Keynes took as a matter of course. We do not yet know how to reconcile the boring nature of many jobs with freedom for the human spirit; Keynes, who thought about it in terms that reflected his own social background, looked forward to more automation, less work, and the enrichment of leisure time by cultural activities provided by the state.

In summary, in my judgment, Keynes was a politician, but a politician whose constituency was not electoral but intellectual—he had to be a scientist to be a politician. And he was a good enough scientist, with a strong enough sense of scientific integrity, and a strong enough aesthetic preference for truth, to recognize eventually that the social science he knew was not good enough to solve the problems he recognized as politically important, and that he had to reform the science to make it politically relevant and useful. He was a scientific political economist. One can emphasize either the 'scientific' or the 'political'—and which adjective one emphasises depends on whether one is writing a political biography of the man himself or a history of economic thought—but both adjectives are appropriate and both are necessary to characterise what the man was and what he contributed to British society and British social history.

3

Does Economics Help? An Exploration of Meta-economics

E. F. Schumacher*

A STUDENT might ask 'What do I learn when I study economics?' and receive a threefold answer, as follows:

'First of all, you will be able to learn the meaning of various technical terms and concepts and how they are interconnected.

'Secondly, you will be able to learn how the economy functions, and in particular how it is possible that a kind of order emerges even though millions of people do what they please and there is nobody who plans the economy as a whole—Adam Smith's "invisible hand".

'Thirdly, you will be able to get ideas of how the whole thing could be made to work better; you will learn the art—or part of the art—of what is called: social engineering.'

Receiving such an answer, the student will probably be quite satisfied. The first part of the answer is certainly satisfactory: all these difficult, abstract terms! It will be good to be able to find out exactly what they mean.

The second part of the answer is promising. The working of the economy is assuredly full of apparent paradoxes and contradictions, and it will be a great experience to find out how it can all be understood.

And as regards the third part of the answer, the prospect of learning how to become active in the actual world and improve it; this is just what the ambitious student is looking for.

The question arises, however, whether these promises—if indeed such promises are being made—are justified. If they are not justified, or if these promises are not even made, we are left with the closely related questions: What then, *is* economics? What *does* it teach? Or, as I have entitled my talk: Does economics help?

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To come to grips with questions such as these, we might do well to consider the nature of statements or theorems put forward by economists. As far as I can see, they can be classified into seven groups. There are, first of all, definitions and explanations of terms. This is unquestionably valuable, because many of these terms are in frequent every-day use, and it is useful for anyone to know what they mean and to be able to use them correctly. I therefore have no doubt that the teaching of economics keeps its first promise—to explain and clarify the meaning of various terms and concepts. There are, secondly, certain logical and mathematical tautologies, such as, 'world exports *equal* world imports' or 'the inevitable concomitant of a country's balance of payments surplus is an *equal* balance of payments deficit of some other country or countries' or 'public debts are private assets' or the Keynesian theorem: 'savings *equal* investment'. The truth of such tautologies depends, of course, on suitable definitions being given to the terms used; if the definitions are correct, the theorems are correct, beyond any doubt whatever. Such tautologies can be of very great value, because they provide insights into connections and identities which our sluggish brains only too easily overlook, but which are perfectly obvious once they have been clearly formulated. These first two classes of statements—explanatory definitions and tautologies—belong uniquely to economics and are in no way derived from the subject matter of any other discipline. But they constitute, of course, only a minute part of what is actually being taught as economics.

A third class of statement or theorem, which plays a decisive role in our subject, consists of psychological generalisations, allegedly based on insights into human nature. A classical example is the statement by Adam Smith that 'the desire of bettering our condition comes with us from the womb and never leaves us until we go to the grave'; or his even more specific assertion that 'every individual is continuously exerting himself to find out the most advantageous employment for whatever capital he can command'. Adam Smith offers these statements as if they were simple statements of fact, as if he had ascertained and therefore *knew* the desires and strivings of human nature as such. Modern economists tend to be a bit more cautious: they qualify statements of this kind by words like 'on the whole' or 'in general'. Sometimes their psychological generalisations are about human nature *as such,* irrespective of historical setting and economic system, and sometimes they are claimed to be true only of human

behaviour *within a given society*. The difference between these two types of statement is important enough to entitle us to talk, separately, about a fourth class of statement, namely, psychological generalisations about human behaviour within a given social system.

A fifth class of statements generally made by economists relates, not to human nature as such, nor to human behaviour in a particular historical setting, but to geographical, geological, physiological, technological, organisational, and other facts or situations in the 'outside world'. If it is said, for instance, that the supply of a certain commodity will increase when demand increases, there is an implication that the 'outside world' is constituted in such a way that the supply of this commodity *can* increase. How does the economist know? Indeed, he is often aware of the fact that he does not know, and he therefore uses a sixth class of statements which are neither definitions (class 1), nor tautologies (class 2), nor psychological generalisations (classes 3 and 4), nor statements about the constitution of the 'outside world': they are conditional sentences introduced by the word 'if', or, using a different grammatical form, qualified by some such phrase as 'other things being equal', or: 'let us now assume that. . . .' When you are uncertain about facts you can always formulate a sentence of certainty by making it conditional with the little word 'if'. In fact, it is possible to erect enormous and elaborate edifices of thought which look at first sight like reflections of reality but turn out, on inspection, to be based on nothing but more or less arbitrary assumptions.

Finally, there is a seventh class of statements which do not tell you what *is*—whether actually or conditionally—but what *ought to be:* normative statements. They also play a large role in economics, although the majority of modern theoretical economists seem to claim that to make normative statements is to behave unscientifically. As they do not wish to be accused of unscientific behaviour, they never use the word 'ought' except in connection with the word 'rational': 'People ought to take rational decisions, and we can tell them what is rational and what is not.' This sounds plausible enough, but it is none the less an evasion; for the idea of rationality in economics is useless unless it relates to goals which are themselves rational.

When we look at the seven classes of statements or theorems which I have outlined, we may well wish to know what is the competence of the economist with regard to each of them. As I have said already, he is obviously competent with regard to classes 1 and 2—definitions

and what I have called tautologies. He may also be deemed to be competent with regard to class 6—conditional statements which do not claim to be statements of fact but merely show what would follow logically if the facts were such as had been assumed. But what is the competence of economists, as economists, with regard to classes 3, 4, 5 and 7? That is to say, are economists really competent to pronounce on the immutable structure of human nature (class 3) or on human behaviour in a given society (class 4) or on geological, technological and innumerable other relevant facts of the 'outside world' (class 5) or, finally, on what *ought to be* the goals of man or society?

This is indeed a very disturbing question. The economist may well protest that he could not possibly be expected to be expert in all these fields, and his protest has to be accepted. But what follows? It follows that the competence of economics to explain how the economy actually functions is admitted to be extremely fragmentary and limited. It follows, furthermore, that the competence of economics to produce recipes of how the economy can be made to work better is even more fragmentary and limited. Personally, I venture to doubt that students embarking on the study of the fascinating and extraordinarily demanding subject, economics, realise this; I am not at all sure that the teachers of economics even attempt to tell the students about it—perhaps because they themselves have never thought deeply about such—what shall I say?—*meta-economic* questions.

In any case, it is easy to see what normally happens in the presentation of economics. There is normally a gradual progression—often so gradual as to be almost imperceptible—through four stages: Generalisation; Assumption; Assertion; and Norm.

Let us take an example from 'microeconomics': motivation. First, there is a generalisation, such as: 'In general and most of the time the individual strives naturally for the accumulation of money and riches as ends in themselves.' No generalisation tells the whole truth; exceptions, as the saying goes, prove the rule; they have to be 'borne in mind' but cannot be incorporated in our science. To get rid of them, there is the easy and convenient method of turning the generalisation into an assumption: 'Let us *assume* that individuals invariably strive for the accumulation of money and riches as ends in themselves.' We now have a firm basis on which to erect our economic theories, and as the theorising proceeds, the assumption imperceptibly turns into an assertion, not perhaps directly but in-

directly, as in the proposition: 'If we take action A the result will be B, *because* individuals invariably strive for the accumulation of money and riches as ends in themselves.' And when this stage has been reached, it is not long before the assertion turns into a norm, not, of course, by saying that people *ought* to strive for the accumulation of money and riches as ends in themselves, but by suggesting that to do so is the only rational mode of behaviour. People who behave irrationally, i.e. not 'economically', are not to be taken seriously; they are either uneducated or they suffer from a defect of intelligence or character. You cannot base economic policy on the behaviour pattern or predilections of eccentrics, cranks, perverts, misfits, or dropouts.

Much the same tends to happen in the macro-economic field. Let us take as an example the 'system' of private enterprise in a free market economy. Observation shows that laissez-faire does not, in fact, result in totai chaos but produces what looks like some kind of order. This, at first sight, is surprising. How can any kind of order result from the unco-ordinated decisions of millions of individuals? Adam Smith observed the behaviour of 'every individual' and found:

> 'It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment (of his capital) which is most advantageous to the society.'

He talked about it with awe and delight—

> '. . . every individual necessarily labours to render the annual revenue of society as great as he can . . . he intends his own security . . . only his own gain . . . and he is in this, as in many other cases, led by an invisible hand, to promote an end which was no part of his intention.'

The natural scientists talked—and occasionally still talk—in a similar vein when marvelling at the Laws of Nature. In the inanimate world, there is complete laissez-faire, and yet some kind of order seems to emerge. The atoms are just what they are; they have no freedom to change their natures. The mindless interplay of atoms produces the so-called laws of physics and chemistry, which can be ascertained by man and utilised for his own purposes. Where there is no freedom, there is predictability; and predictability looks like 'order' to the man who wants to exploit it. This is where the extremes

meet: the total absence of freedom (in inanimate nature) produces chaos which, on account of its predictability, has the semblance of order; just as the total exercise of human freedom would produce a kind of order which would have the semblance of chaos.

Laissez-faire at the human level, in other words, produces the semblance of order only to the extent that men make no use of their power of freedom and behave as if their natures were fixed and immutable, which would mean that they had no common aims and aspirations, no social goals, no desire for justice, and no idea of the Common Good. The semblance of order produced by laissez-faire therefore emerges only if men refuse to be men and insist on acting without freedom, like atoms. The Law of the Jungle is a law only by inverse analogy.

All the same, the semblance of order which results from the Law of the Jungle, from laissez-faire, demanded some kind of an explaplanation from the economists. Their observations led to the generalisation that 'it works'—in a fashion. They found that they could account for this fact by making certain assumptions about free competition, perfect knowledge on the part of producers and consumers alike, and a few other things as well. When the laissez-faire system did not work satisfactorily, this had to be treated as an exception. Exceptions can be easily and conveniently eliminated by turning the generalisation into a conditional sentence: 'If certain conditions are fulfilled, the laissez-faire system works perfectly.' And it is a short road to turn the assumption that these conditions are being or can be fulfilled into the assertion: 'The laissez-faire system is the most perfect system conceivable.' Again, it does not take long before laissez-faire becomes the norm and it is proclaimed from the seats of learning that any interference with free market forces is irrational, wasteful, uneconomic, and, finally, immoral. When this stage has been reached, there is no more room in the science of economics for such ideas as justice and the common good, not to mention notions of the Good, the True, and the Beautiful. The place of such ideas and notions is not *within* economics but at best outside it; that is to say, we must order our lives first of all exclusively in accordance with economic principles; any concern for 'non-economic values' can only be considered afterwards—if we can afford such irrationalities. (Dr. Mansholt, leading light of the European Economic Community, put it succinctly when he said: 'For nobody can afford the luxury of not acting economically.')

The progression from Generalisation to Assumption to Assertion to Norm can also be observed in the manner economics has hitherto dealt with natural resources and the environment. Whether under the impact of popular agitation this will now change remains to be seen. Initially, there was the generalisation that, minor exceptions apart, natural resources would always be adequate to sustain man's economic activities, no matter how much the latter might expand. Equally, the environment was thought to be, as it were, 'big enough' to cope with whatever man might do. Although some cautious or far-sighted people felt it necessary to turn this generalisation into an explicit assumption, economic reasoning proceeded on the firm conviction that there were no limits to economic growth and that it was not necessary to bother one's head about such things. This implicit assumption, or conviction, quickly turned into an outright assertion, which took the form of an unquestioning belief in progress: the limitless progress of science and technology would always be able to break through any temporary limits which natural factors might at any time appear to impose. Consequently, economics saw no need to distinguish systematically between primary and secondary goods. The fact that the former had to be won from nature and that the latter presupposed the availability of the former, was of no concern. Until very recently, not even the vital distinction between renewable and non-renewable raw materials engaged the attention of economists. The idea of conservation was treated as absurd. If oil was easier to get out of the ground, and therefore cheaper, than coal, why not abandon the collieries? Oil was plentiful and would always remain so. I do not have to enlarge on these matters, because what was anathema only a few years ago is now commonly accepted by thoughtful people all over the world. But it still has not found a place in the teachings of economics. The assertion that the environment with its natural resources is simply 'given' as immutably sufficient for any demands that might be made upon it is still so powerful that it acts as a norm: it is considered eccentric, perverse, even subversive and immoral to study any possible limits to economic growth along the established pattern.

The question arises, of course, whether economists, as economists, are qualified to study such matters as the likely availability of non-renewable resources in the future, or the possibility of ecological breakdown, or even the possibility of human revolt against an industrial system that seems to strive with all its might to organise

itself for productivity with scant regard for fundamental human needs and values. The whole tradition of economics has been in the direction of an ever increasing exclusion of 'external' factors, which can only be treated as 'given', and an ever increasing concentration on 'internal' analysis and subtlety. The mental efforts that are being devoted to the construction of logical and often mathematical models, designed to 'optimise' the functioning of highly artificial and totally isolated 'systems' is fantastic, but all these 'systems' are erected on assumptions which are almost totally irrelevant. A year or so ago, Professor Phelps Brown, in his Presidential Address to the Royal Economic Society, talked about 'The Underdevelopment of Economics'. He complained about 'the smallness of the contribution that the most conspicuous developments of economics in the last quarter of a century have made to the solution of the most pressing problems of the times', such as overseas development, inflation, environmental protection, quality of life, urbanism, and others. Why is this? Perhaps he ought to have entitled his address 'The Over-development of Economics', because economists have become so absorbed in logical, mathematical, and econometric subtleties, that they have almost totally neglected the study of those determining 'external' factors upon which the meaningfulness of their exercises utterly depends. I believe that if economists wish to regenerate their subject, they must turn their main attention to questions that now seem to lie completely beyond and outside their own *reservation*— to what I call 'meta-economics'.

Meta-economics, it seems to me, can be conveniently divided into three parts; first, a metaphysical 'critique' of economics itself; secondly, a study of the physical factors, with regard to their essential, qualitative natures, which economic reasoning has to respect; and, thirdly, a study of man in his wholeness, not simply of 'economic man', a bloodless abstraction.

A part of the metaphysical *critique* of economics consists of the analysis of the essential nature of theorems and statements put forward by economists, along the lines attempted in the earlier parts of this lecture. I shall not enlarge on this now. Another part, I am sure, consists of a searching enquiry into the relationship between quantity and quality. What are we doing when we are pushing economics ever more in the direction of a purely quantitative science, econometric, mathematical, model building, *as if* the actions of people were essentially the same as the behaviour of atoms? Are

the human sciences *essentially* similar to physics (as Professor Phelps Brown, along with many others, appears to believe) so that mathematisation, which may be premature because of insufficient systematic, exact, scientific observation, is none the less inherently possible and meaningful? 'Our knowledge of the relevant facts of economics', says Professor Oskar Morgenstern, 'is incomparably smaller than that commanded in physics when the mathematisation of that subject was achieved.' Such a statement, which Professor Phelps Brown quotes approvingly, implies that the 'facts' of economics are *in their essential nature* similar to the facts of physics. But are they? Are human beings, who after all are the *dramatis personae* of economics similar to atoms in their essential nature? What is the predictability of human behaviour and on what is it based? No doubt many things in economics are predictable, and their predictability can be explained. But can it be assumed that all things can *in principle* be tolerably accurately predicted, provided only we have more data and perfect our forecasting techniques; and, if this is assumed, what is the basis of such an astounding and improbable assumption? Is it understood that its only logical basis would be the total denial of human freedom, and therewith of human responsibility, creativeness, purpose, and any meaning of human existence? If economists continue to refuse to face such fundamental metaphysical—or, if you prefer the term, philosophical—questions, I cannot see that they can have any idea of what they are really teaching and what is the relationship of their teaching to truth.

The second part of meta-economics relates to the physical world. I have already alluded to the necessity for making *essential* distinctions between 'goods', such as the distinction between renewable and non-renewable raw materials. Economics achieves quantification mainly by attaching a 'market value', cost, or price tag to all goods and services and then treating them all as essentially the same. Hence the fascination with the purely quantitative concept of Gross National Product, which adds everything together, whether it is good or bad, healthy or unhealthy, life-sustaining or life-destroying. The idea of the 'free market' exercises a similar fascination, because all goods carry a price tag, and the customer need not concern himself over what these goods really are—whether they are home produced or imported, renewable or non-renewable, the product of sweated labour or fair dealing etc.—but only over the advantage he, personally, might get out of them. The customer is simply a bargain

hunter and accepts no responsibility for anything or anybody but himself. The economist, it would seem to me, carries a wider responsibility than the bargain hunter, and therefore has to understand fundamental, qualitative differences between 'goods', differences which the market obliterates. If he does not so concern himself, who does? It is no use saying that these wider responsibilities have to be carried by government, because, after all, economists insist that governments should seek the advice of economists when it comes to economic matters. I believe, therefore, that, as regards this second part of meta-economics, economists must diligently pursue interdisciplinary co-operation with people who are reliably expert in various important aspects of the physical world,—with geologists, ecologists, physicists, technologists, and many others.

Finally and most importantly, I come to the third part of meta-economics, the study of man in his wholeness. The progression from Generalisation to Assumption to Assertion and, finally, to Norm, about which I have spoken, is most dangerous and, in fact, destructive of civilisation, when it involves the picture of Man. 'From a spiritual being,' said R. H. Tawney half a century ago, 'who, in order to survive, must devote a reasonable attention to economic interests, man seems sometimes to have become an economic animal, who will be prudent, nevertheless, if he takes due precautions to assure his spiritual well-being.' How much of this prudence has survived these last fifty years, I leave to others to judge. Tawney continued thus:

> 'The result is an attitude which forms so fundamental a part of modern political thought, that both its precarious philosophical basis and the contrast which it offers with the conceptions of earlier generations are commonly forgotten. Its essence is a dualism which regards the secular and the religious aspects of life, . . . as parallel and independent provinces, governed by different laws, judged by different standards, and amenable to different authorities. To the most representative minds of the Reformation as of the Middle Ages, a philosophy which treated the transactions of commerce and the institutions of society as indifferent to religion would have appeared, not merely morally reprehensible, but intellectually absurd.'

It would no doubt be an exaggeration to say that this development has been caused and promoted primarily by the labours of economists; but they have been its standard bearers and have done little,

if anything, to resist it. The attempt to describe and eventually to control the economic activities of human beings by means of econometric models necessarily requires a ruthless and extreme simplification of the picture of man. Man is seen either as a mechanical robot, whose reactions are ascertainable and predictable like those of mindless matter, or as a 'rational' *homo oeconomicus* solely concerned with material self-enrichment. Neither of these two pictures bears the marks of *humanity*. An economic teaching built on such a basis cannot possibly be helpful in solving the economic problems now oppressing us, and I would go so far as to say that the intensive study of such a teaching, although it may in some respects be useful, does considerably more harm than good. For every man, in the course of his life, becomes what he thinks, is formed by his thoughts. If what he thinks is narrow and unreal, he himself becomes narrow and unreal.

The modern world is currently involved in three crises at once. There is, to say the least, a 'crisis of confidence' in the future availability of essential raw material supplies, primarily supplies of fossil fuels. Hence the appearance of studies such as that on the *Limits to Growth*. There is secondly a crisis of the environment, of living nature around us, which seems to groan and shudder and to tell us that it cannot survive if we continuously intensify our assaults upon it. Hence the Stockholm Conference. And there is thirdly a crisis in the reactions of human nature to our economic way of life which worships giantism and threatens to submerge the human person. After all, people are small in size and can confidently cope only with people-sized problems. Giantism in organisation as in technology may occasionally give them a feeling of elation, but it makes them unhappy. All modern literature is full of this unhappiness, and so is modern art.

Are these three crises due to a lack of logical competence in economics? This would be hard to believe. They are due to meta-economic factors, to factors lying outside the narrow confines of economic reasoning but irresistibly determining its validity. I claim, therefore, that if economists wish to become really helpful they must now most seriously and diligently embark on a systematic exploration of meta-economics.

4

The Current Inflation—The Problem of Explanation and the Problem of Policy*†

David Laidler‡

UP TO THE mid-1960s, the broad facts of British economic life were a low level of unemployment, a moderate rate of inflation, and an increasing tendency towards balance of payments deficits. The widely accepted interpretation of these facts was that they reflected an excess aggregate demand for goods and services which simultaneously resulted in pressure on the labour market—hence the low unemployment level—pressure on wages and prices—hence the moderate inflation rate—and, as a result of wage and price inflation, a gradual loss of competitiveness on the part of British exports and import substitutes which produced the balance of payments problem.

The period since the devaluation of 1967 and particularly the years since 1969, have seen a large, and until recently, increasing balance of payments surplus, a high, and until recently, increasing level of unemployment and an inflation rate far more rapid than any experienced since the end of the Korean war. It is widely held that this recent experience contradicts the orthodox economist's view that variations in the price level have their origins in variations in aggregate demand and hence can be dealt with by the traditional monetary and fiscal tools of demand management. The co-existence

* This lecture is based on work currently being carried out under the auspices of the SSRC—University of Manchester Inflation Project. As will be apparent from the references it draws not only on my own research, but on that of other members of the project. In particular, I have had many helpful and stimulating discussions with John Foster, Michael Parkin, David Rose and Geroge Zis. I am grateful to John Hargreaves for drawing the charts and collecting the data on which they were based. Nevertheless, the author alone is responsible for the points of view expressed here. This version of the paper has been specifically prepared for inclusion in the 1972 proceedings of Section F of the British Association.
† LISTER Lecture.
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of rapid inflation and high unemployment is seen as evidence that the nature of the inflationary process has changed and that the source of price increases must be sought on the supply side of the economy. From this it follows that anti-inflation policy must concentrate upon holding down cost, and particularly wage increases; hence the widespread belief that a prices and incomes policy of some sort is essential to the solution of the current problem.

In this lecture I shall argue that recent experience is far from being unique, and that there is nothing in that experience to contradict the orthodox view that inflation is caused by excess demand, once it is realised that this orthodox view tells us not only that expectations are of importance but also, and crucially, that we should look to the world at large, and particularly the United States, if we wish to find the source of the current British inflation. It follows from this view that traditional demand management policies are perfectly capable of dealing with inflation provided they are co-ordinated with policy towards the exchange rate. Indeed, inflation will not be cured without resort to such policies, though the cure cannot be expected to be costless. Thus I shall conclude the lecture with a brief discussion on the factors that ought to be considered in designing an appropriate anti-inflation policy.

The view that the same theory cannot account for the course of inflation before and since 1969 stems from the fact that since 1969 both the inflation rate and the level of unemployment have increased dramatically. This evidence appears to be totally inconsistent with the theory that higher rates of inflation are associated with higher levels of excess demand for goods and services and hence with lower unemployment levels. But this theory, like any other in economics, makes its predictions on an 'other things equal' basis. In the 1950s and 1960s many of its staunchest proponents failed to state explicity the circumstances under which one ought to expect its predictions to be true. In particular they failed to note that because, as Mrs. Robinson has reminded us in her Presidential Address, economic activity takes place over time, an important determinant of the rate at which any firm will raise its prices, and for that matter any firm and trade union will between them raise wages, must be the rate at which prices in general are expected to increase in the economy. Thus they failed to state explicitly that variations in the level of excess demand cause variations in the rate of inflation *relative to the rate which is expected* and hence are only systematically related to

variations in the inflation rate when expectations are not changing.[1] Thus there is scope for at least two views about the recent course of inflation: that the nature of the inflationary process itself has changed, and that the basic process has remained the same but that the general public's expectations about the inflation rate have changed.

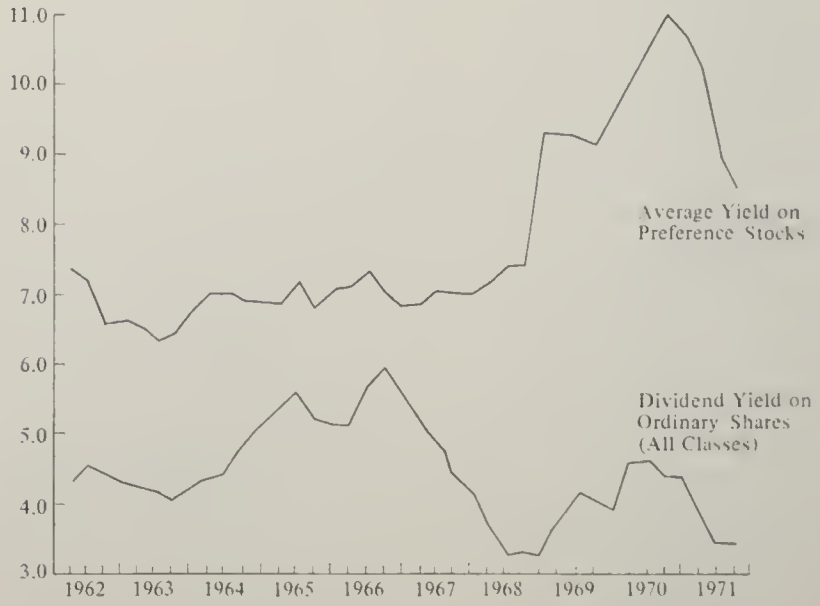
Now expectations are not directly observable. Virtually any price level behaviour, however unlikely, can be rationalised *ex post* by saying that expectations must have changed. However it is possible to specify what variables other than the inflation rate itself change with inflationary expectations. It is also possible to formulate precise hypotheses about the factors which influence expectations. To be specific on these two counts is to turn the postulate that expectations must have changed from an *ex post* rationalisation of no scientific value into a potentially falsifiable hypothesis.

Economic theory does predict that inflationary expectations affect matters other than wage and price setting. Indeed the concept made its first appearance in economics—close to a century ago—not in the context of the theory of wages and prices at all, but as part of a theory of the behaviour of interest rates.[2] The prediction then, as now, was that the rate of interest on those assets whose value is fixed in nominal terms—typically bonds—would tend to exceed that on those assets which represent a claim on real physical assets—typically equities—by the expected rate of price inflation. I say 'tend' here because the yields would differ exactly by the expected rate of inflation only if the assets in question were otherwise exactly alike; even so, on the basis of this theory one may predict that increases in the expected rate of inflation will lead to a relative increase in the rate of interest on nominal assets. Inspection of Figure 1 reveals that the difference between the yield on equities and that on preference stocks began to widen in late 1966 and opened up dramatically between the first quarter of 1968 and about half way through 1969, just before the 'wage explosion' began in earnest. This behaviour is certainly consistent with the predictions of the expectations hypothesis and, if it stops a long way short of establishing the truth of that

[1] The view that the inflation rate varies systematically with excess demand is of course the basis of Phillips' curve analysis. There is no mention of expectations in Phillips' original paper (1958) nor in the work of Lipsey who developed Phillips' analysis further cf. Lipsey (1960) and Lipsey and Parkin (1970). Note, though, that Parkin (1970) paid careful attention to expectations, and did find them to be important.

[2] Cf. Irving Fisher (1896).

Figure 1
Yields on Preference and Ordinary Shares U.K. 1962(II)–1971(IV)



Figures are quarterly averages of monthly data taken from the 'Company Security Prices and Yields' tables in various issues of *Financial Statistics*

hypothesis as an explanation of the increase in the inflation rate, it does at least raise it above the status of a mere *ex post* rationalisation.

Now let us turn to the question of the manner in which expectations are formed. For well over a decade economists have found that a surprisingly simple theory of expectations gets them a long way in interpreting aggregate economic phenomena. The theory is that people form their expectation of the future value of some economic variable, in due course observe the actual value of the variable, and make their next prediction about it by revising their initial one by a fraction of the amount by which it was in error. This so-called 'error learning hypothesis' has been applied to income and interest rate expectations, but its original application was to inflation theory and specifically as a component of an extremely successful attempt to explain the time path of prices during hyper-inflation.[3]

[3] The hypothesis was first applied to income expectations by Friedman (1957), to interest rates by Meiselman (1962) and to the inflation rate by Cagan (1956).

Now if people form their expectations by adjusting to their last error, and if past expectations have been similarly formulated, it will be intuitively obvious that the currently expected rate of inflation will depend upon all past values of the actual inflation rate. Recent values will have more influence than more distant ones; indeed it is easy to show that the error learning hypothesis implies that the expected rate of inflation is equal to a weighted average of current and past inflation rates, where the weights decline geometrically with time.[4] Thus, it has the great advantage of enabling us to express a variable that cannot be directly observed in terms of observable phenomena, hence making the expected inflation rate an empirically useful concept. In particular, as I shall now show, it enables us to answer the question, what relationship ought we to observe between the rate of inflation and the level of excess demand when the expected inflation rate is not held constant?

I mentioned at the outset of the lecture that I believe the openness of the British economy and events abroad to be crucial in any explanation of recent events. The easiest way to see that this is the case is first to consider what the relationship between the rate of inflation and excess demand ought to be in a closed economy in which the expected rate of inflation is generated solely by the error learning mechanism sketched out above, and in which the actual inflation rate departs from the expected rate solely in response to variations in the level of excess demand. A comparison of this extremely simple and abstract economic model's behaviour with that of the British economy yields what I believe are vital clues to understanding recent, and indeed not so recent, economic history.

This theory in fact tells us that the *rate of change* of the rate of inflation ought to be related not only to the size of the gap between aggregate demand and potential full employment output, but also to the rate at which that gap is changing. According to this theory, when the level of economic activity is falling away from full employment the rate of inflation will slow down and, as it rises towards full employment, the rate of inflation will at first continue to slow down but will begin to speed up as expansion continues.[5] Thus, this

[4] The hypothesis states that, if X^e is the predicted value of some variable, X its actual value, and $-1, -2, \ldots -n$ are time lag subscripts then

$$X^e - X^e_{-1} = b(X - X^e_{-1})$$

where b is a positive fraction. It follows from this that

$$X^e = bX + b(1 - b)\, X_{-1} + b(1 - b)^2\, X_{-2} \ldots b(1 - b)^n\, X_{-n} \ldots$$

see p. 42 for footnote 5

extremely simple and orthodox model in which inflationary expectations respond only to past experience of inflation, and current inflation responds only to expectations and excess demand, tells us that it is the rate of change of the inflation rate and not its level that ought to be related to swings in output and employment, and makes reasonably precise prediction about the nature of that relationship.

In Figure 2, I have plotted the time path of the rate of change of prices as it relates to the course of the business cycle in twentieth-century Britain. Now it would be surprising indeed if an extremely simple model of a closed economy were not to make some erroneous predictions about the rate of inflation in a complicated open economy such as Britain, particularly when it is granted a seventy year time span in which to make errors. In fact, the model goes badly wrong in its predictions in 1925–1927 when the rate of inflation failed to continue its upward trend, 1931–1935 when it first began to rise too soon and then stopped rising at the very time when it should have begun to rise, 1949–1950, 1960–1962 and 1967–1968 when in each case it was rising when the model predicts that it should have been falling.[6] In addition to these cases, there is some problem with the

[5] Where E is planned real expenditure by all sectors of the economy, Y^* is the 'full employment' level of output, ΔP is the actual rate of inflation, and ΔP^e is the rate expected to hold between now and the next period, the theory may be written as

$$\Delta P = g(E - Y^*) + \Delta P^e_{-1}$$
$$\Delta P^e = d\Delta P + (1 - d)\,\Delta p^e_{-1}$$

From this it follows that

$$\Delta P - \Delta P_{-1} = g(E - E_{-1}) + dg(E_{-1} - Y^*)$$

The problem is analysed in considerably more detail in Laidler (1973). Empirical work being carried out by my colleagues John Carlson and Michael Parkin suggests that a slightly modified expectations hypothesis in which people learn from their last two errors is more appropriate for dealing with inflationary expectations in Britain. This hypothesis, which is equivalent to saying that people take note not only of the size and sign of their predictive errors, but also of the direction and rate of change of those errors may be written

$$\Delta P^e - \Delta P^e_{-1} = c(\Delta P - \Delta P^e_{-1}) + h(\Delta P_{-1} - \Delta P^e_{-2})$$

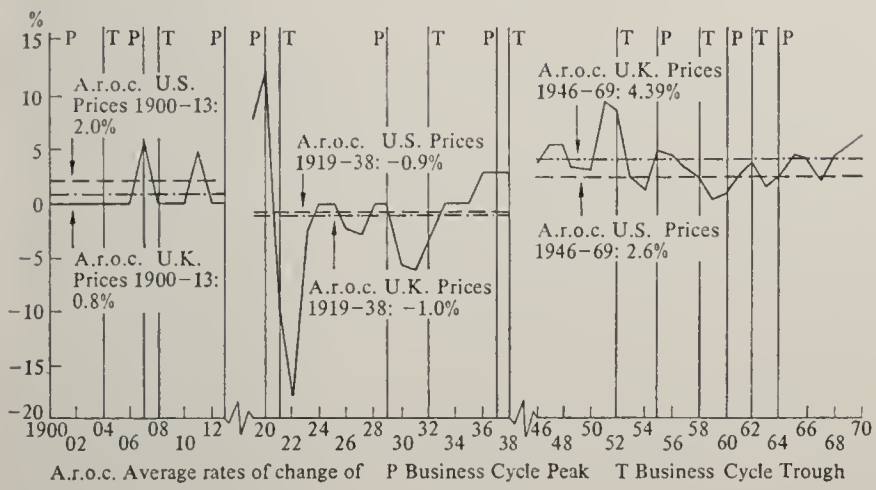
If we substitute this equation into the foregoing analysis, we get

$$\Delta P - \Delta P_{-1} = g(E - E_{-1}) + cg(E_{-1} - Y^*) + hg(E_{-2} - Y^*)$$

which does not yield predictions that are qualitatively different from our earlier ones. It does, however, accentuate the potential importance of the prediction that the turning point of the cycle in the inflation rate should lag the turning point in the business cycle.

[6] My turning points are taken from Matthews (1969). Note that the NBER regard 1924–27 as having constituted a separate cycle, but that Matthews disagrees with this dating. There are no turning points given after 1964, but we are on safe ground, I think, if we assert that the economy was not on a cyclical upswing in 1967. If anything 1968 marked a trough.

Figure 2
U.K. 1900–1969: Rate of Change of Retail Prices (%)



Figures are percentage first differences of Retail Price Index taken from table E of *The British Economy Key Statistics*, 1900–70

pre-1914 results inasmuch as a constant inflation rate tends to replace what should be a falling one. The relatively mild nature of the business cycle in these years, combined with the inevitably poor quality of the price level data for the period, suggests that this should not trouble us unduly. The two sharp peaks in this period simply reflect the fact that a much rounded index number moved up by one percentage point in those years.

There seem to me to be two major lessons to be learnt from Figure 2. First, the period since 1967 is by no means the first time that orthodox inflation theory has failed to predict events in the British economy. This seems to me to go a long way towards undermining the view that recent experience is the result of some new causative mechanism that has never been at work before. Second, with the exception of 1960–1962 (which I am unable to explain at present), every other false prediction comes in the wake of a major exchange rate change. The pound was revalued in 1925, devalued in 1931, effectively revalued by the American devaluation and realignment of exchange rates of 1933–1935, devalued in 1949 and again in 1967. It would be hard to find a more striking confirmation than this of the

importance of the openness of the British economy. Let us therefore see how our basic model can be modified to deal with an open economy.

Both components of the model must be altered somewhat when we come to consider an open economy with fixed exchange rates. In a closed economy, if demand exceeds supply, the rate of inflation rises relative to expectations, and if it falls short, a relative fall in the inflation rate ensues. The same is true of an open economy with a flexible exchange rate. Inflation drives down the exchange rate ensuring both that import prices keep up with those of home produced goods and that the price in terms of domestic currency received by exporters rises also. Deflation has exactly opposite effects.

The existence of fixed exchange rates means that the foreign trade sector provides an alternative source of both supply and demand for goods at prices fixed by world market conditions. If demand exceeds domestic output then an increase in imports and a diversion of goods from exports is a possible substitute for domestic inflation, while a shortfall of demand may equally be diverted into a 'favourable' change of the balance of payments. For a 'small' economy with a 'large' foreign sector where there were negligible costs of switching output between foreign and domestic markets, the tendencies just outlined would be sufficient to ensure that domestic prices never deviated from world prices, so that, whatever the world inflation rate, that would be the domestic one too. Such an economy is, of course, very much a limiting case, though not an empirically irrelevant one for we can get considerable insight into the problems of particular regions of Britain, for example, by regarding them as small open economies of this kind. For Britain as a whole, there probably are significant costs of moving between domestic and foreign markets; the openness of the economy limits, rather than completely overwhelms, the tendency of the inflation rate to vary in the short run with the level of aggregate demand.

In the long run, though, it is surely unreasonable to expect the British inflation rate to move too far from that ruling in general in the rest of the world. British producers of exportables cannot be expected to hold domestic prices constant when the price of their goods on world markets is increasing, nor can the suppliers of British imports and import substitutes be expected to sell them below world market prices for any length of time.

Now all this amounts to saying that the openness of the British

economy ensures that the domestic inflation rate is less sensitive to purely domestic disturbances than it would be were the economy closed, and that in the long run the inflation rate ruling in the rest of the world is going to have an important—perhaps dominant—influence. This at least is likely to be true so long as the fixed exchange rate remains fixed.[7]

If there is a devaluation the domestic price of imports must rise, while the domestic price of exports too will rise as producers divert output towards the overseas markets made more profitable by the devaluation. Moreover, these effects will spread through factor markets and will influence the prices of goods not directly involved in foreign trade. These are the inevitable and obvious consequences of a devaluation and it is reasonable to suppose that those involved in fixing wages and prices will anticipate a period of accelerated inflation in the wake of a devaluation. Thus exchange rate changes under a fixed rate regime must introduce an extra factor—independent of past experience—into the determination of the expected inflation rate, as well as setting in motion the events whereby the expectations in question are validated. This is surely a plausible hypothesis with which to explain the systematic failure of a closed economy model to predict the direction of change of the inflation rate in the period following exchange rate changes.[8]

Though it was the behaviour of the inflation rate after exchange rate changes that first prompted consideration of the openness of the economy, the foregoing argument also tells us to look for another characteristic in the data charted in Figure 2. It tells us that in the absence of exchange rate changes, the British inflation rate would on average in the long run follow the world rate. If we take a long run average of the U.S. inflation rate as an approximate measure of that

[7] This argument suggests that firms initially choose the rate at which they change their prices as equal to the world inflation rate plus the amount they expect the British rate to differ from the world rate and then revise these plans in the face of excess demand or supply. Algebraically, this gives us, where $\Delta\pi$ is the world inflation rate and Δp is the amount by which the British rate differs from the world rate, and all the other symbols have the same meaning as before,

$$\Delta P^e = \Delta\pi + d\Delta p + (1 - d)\,\Delta p^e_{-1}$$

$$\Delta P = g(E - Y^*) + \Delta P^e_{-1},$$

So that $\Delta p - \Delta p_{-1} = g(E - E_1) + dg(E_{-1} - Y^*)$

This leads to a model which determines the rate of change of deviations in the British inflation rate from the world rate, rather than the rate of change of the inflation rate inself.

[8] The empirical work of Carlson and Parkin mentioned earlier has addressed itself to this particular hypothesis and provides support for it.

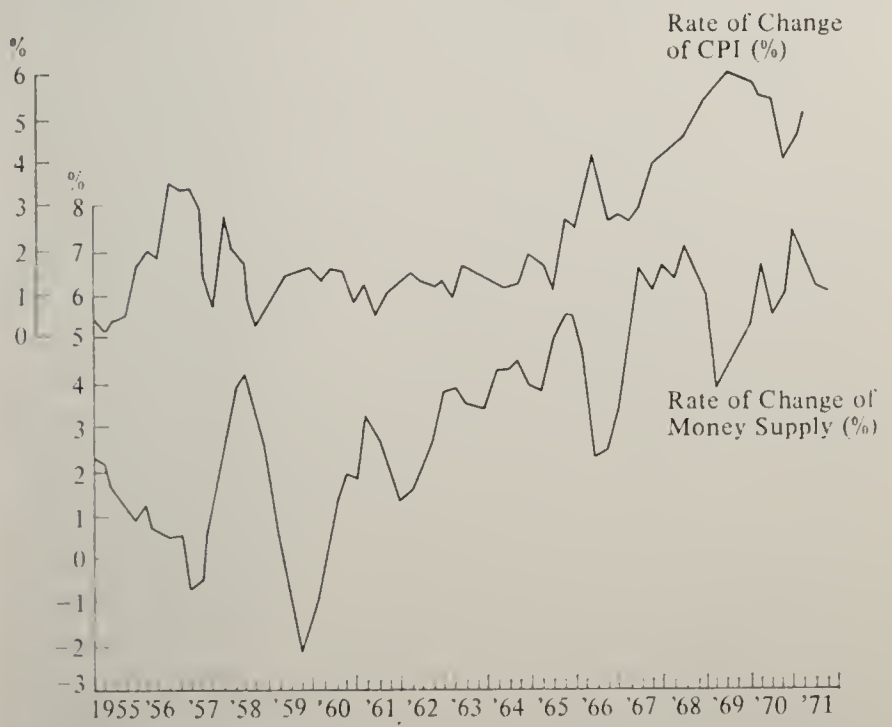
world rate, and this is surely permissible given the dominance of the U.S. in world trade, particularly after 1919, then we may compare the average levels of the British and U.S. inflation rates to see if this prediction has any empirical content. Inspection of Figure 2 will certainly confirm that, systematic though variations in the British inflation rate may have been, it has fluctuated around quite different average levels at different times. These average levels have not deviated far from the long run world inflation rate, as represented by the U.S. rate, as is also apparent from inspection of Figure 2; the average U.S. and British rates over various time periods are there superimposed upon the annual series for the British inflation rate.[9] Only since 1949 has the British inflation rate been systematically above the U.S. rate, but it has taken two devaluations to permit this —just as, incidentally, Germany's very low rate of inflation has had to be accompanied by an upward drift in the value of the mark.

To summarise the argument then: the long run trend in the British inflation rate is given from the outside so long as Britain maintains a fixed exchange rate; most fluctuations about this trend are to be explained by variations in the domestic level of aggregate demand which cause the rate of inflation to vary relative to its expected level— which must of course normally be dominated by the world rate. However, changes in the exchange rate exert a powerful independent effect on the expected rate of inflation so that a devaluation gives an upward impetus to the inflation rate and a revaluation a downward impetus independently of what is happening to aggregate demand and the level of employment. Furthermore, this analysis explains the broad pattern of events since 1900, a pattern into which events of the last few years are no more difficult to fit than any others.

The abnormally high inflation rate of recent years may be interpreted as resulting from a combination of two circumstances. First, the attempt of the American authorities to finance a war in Vietnam and a war on poverty while simultaneously cutting Federal tax rates and attempting to keep interest rates down led to a greatly increased rate of monetary expansion after 1966 and to a substantial increase in the world inflation rate, an increase which was bound to affect the British rate of inflation (cf. Figure 3). Second, the devaluation of 1967 led to an upward revision of inflationary expectations that was independent of and additional to the effect of the change in the world inflation rate. The combined effects of these two factors

[9] This is of course only a crude first test.

Figure 3
U.S. 1955–1971; Rates of Change of Money Supply and Consumers Price Index



Figures are for deseasonalised annual rates of change based on data taken from various issues of the *Federal Reserve Bulletin.* The money supply is here defined as currency held by the public plus Demand Deposits.

swamped the downward pressure being exerted on the inflation rate by the considerable, and as is apparent from Mr. Kennedy's paper, largely deliberately induced excess supply in the economy, until towards the end of 1971 when the inflation rate at last began to fall. No serious problem was noted until 1969, two or three years after the forces towards which this argument points were set in motion, but inspection in Figure 2 confirms that it was 1967 that saw the trough in the inflation rate. We noticed that we had a problem in 1969 because it was then that the rate of inflation reached an unusually high level, but it had already been rising steadily towards that level for two years; moreover inspection of Figure 1 suggests that the expected inflation rate began to move up sharply even before, and surely in anticipation of, the devaluation of 1967. These two facts lend further support to the view that one must look to the events of 1967 and before to find the origins of our current problems.

Now if it is the case that the current inflation may be explained in the terms set out in this lecture it follows at once that explanations that look to purely domestic causes of inflation—I am thinking here in particular of those explanations that centre on trade union militancy—are quite simply too parochial in outlook and confuse the description of inflation with the analysis of its causes. Certainly there is ample room within the explanation I have advanced for trade unions to demand large increases in money wages in a period in which large increases in prices are anticipated, and for employers to be willing to concede to such increases; I know of no evidence that would compel disbelief in the assertions of trade union leaders that their 'militancy' in recent years has been the result of their desire to protect their members' living standards against erosion by an inflationary process neither of their creation nor under their control.[10]

How then are we to cope with inflation both in the long run sense of avoiding the problem in future and in the short run sense of dealing with the present situation. If my diagnosis of the evidence is correct, there is precious little Britain can do about inflation in the long run if she maintains an exchange rate fixed at a particular level. She must simply accept the world rate and recognise that her own contribution to the determination of that rate is negligible. It might be noted in passing that if the enlarged Common Market does form a currency union then Britain will, by the same argument, have to accept the European inflation rate. Whether or not this is the world rate depends upon whether the Common Market adopts a floating or fixed rate *vis-à-vis* the rest of the world. However, the rate of domestic price increase is surely a legitimate matter of concern and there can be no presumption that the rest of the world will generate just that rate of inflation that the British population finds desirable; and, to repeat, domestic control over the domestic inflation rate requires the adoption of a flexible exchange rate.

The authorities now seem to have recognised this, but it ought to be stressed that the adoption of such an exchange rate regime does not guarantee the achievement of the desired rate of inflation.[11] It

[10] The classic study of wage inflation that seemed to lend considerable support to the union militancy hypothesis is that of Hines (1964). The results of a recent study by Purdy and Zis (1972) go a long way towards undermining Hines's results. Even so, as Purdy and Zis show, even an uncritical acceptance of Hines's results enables us to put down only a small fraction of the inflation rate to union militancy.

see p. 49 for footnote 11

merely makes it possible for Britain to have any rate of inflation she chooses regardless of what is happening elsewhere. Though I have argued that recent inflation has to a significant extent been imported, the secular increase in the balance of payments deficit that took place throughout the period 1950–1967 is strong evidence that Britain was importing price stability over this earlier period. To discuss in any detail what the appropriate inflation rate to aim for would be and how it might be maintained would require another one or two lectures. Suffice it then to assert that I think there would be widespread agreement that the target rate of inflation should be lower than the present rate, and also to assert that the maintenance of steady long run growth of the money supply at an appropriate rate must be a *sine qua non* though not necessarily the sole ingredient of the policy that would achieve and maintain that rate of inflation. This, of course, is the strategy that successive British Governments have never tried. Let us now take up the more pressing problem of how to reduce the current inflation rate.[12]

It is a widely held view that a prices and incomes policy is an essential ingredient in any policy designed to reduce the current inflation rate, but I would reject this view for two reasons. First, the premise upon which the case for such a policy is based is that union aggressiveness is the root cause of the problem and I have already rejected that premise. This is not a decisive argument against an incomes policy, for inasmuch as large wage and price increases are a symptom of inflation, it is certainly possible that a policy of attempting directly to control them could relieve the symptoms if it did not in and of itself cure the disease. However, the fact remains that quite exhaustive empirical investigation has failed to produce any evidence that such policies have in the past affected the rate of inflation,

[11] It might seem odd at first sight that I am arguing simultaneously that devaluations are inflationary and that the operations of a flexible exchange rate system will not lead to inevitable inflation when the rate falls. However, there is no inconsistency here. With a fixed exchange rate a balance of payments deficit arises as a consequence of inflationary pressures *and instead of* domestic price increases. Devaluation may, crudely speaking, be regarded as forcing the price level to rise to the level it would have achieved in the first place had the earlier deficit not occurred. With a flexible rate, inflationary pressure results in rising prices which lead to a fall in the rate. When a new equilibrium rate has been reached to accommodate the new domestic price level that is the end of the story.

[12] The case for a steady rate of growth in the money supply is put most eloquently by Friedman (1960). I have given a non-technical account of the case in Laidler (1971:(3)) and discussed much of the work upon whose results the case is based in Laidler (1971:(1)).

with the sole exception of the Cripps era when wage and price controls were accompanied by a battery of quantitative restrictions as well.[13] This of course does not mean that prices and incomes policies have no effects. Given that they are so much easier to apply to some sectors of the economy than others, they undoubtedly produce some inefficiency in the use of resources and considerable short run inequities in the distribution of income. It is, after all, easier to control the income of nurses than stockbrokers and easier to peg rail fares than the prices of second hand cars. Thus, like orthodox policies, they impose costs on the community, but, unlike orthodox policies, there is no evidence that they succeed in reducing the overall rate of change of prices and incomes. In the face of these problems it is surprising that there is still such wide support for the reintroduction of prices and incomes policies, but it is worth noting that their proponents find it much easier to agree that some such policy should be used than to agree upon even the approximate form in which it should be implemented.

Be that as it may, there is no mystery as to how the rate of inflation may be reduced. Sufficiently stringent demand management policies can do that. Indeed, in the present state of knowledge these are the only policies available to us. The problem is that such policies simultaneously produce unemployment, so that reducing the rate of inflation is costly. The central prediction of the expectations theory of wage and price setting advanced earlier is that it is impossible to reduce the rate of inflation below its expected rate without simultaneously producing unemployment. To be sure, this same unemployment produces a downward pressure on wage and price inflation that eventually feeds back into expectations so that a lower rate of inflation can be enjoyed in the long run without a permanent rise in the unemployment rate; but this does not alter the fact that reducing the inflation rate is costly while the process of reduction is in progress. The same theory, though, suggests that the longer we are willing to take about reducing the inflation rate by a given amount, the less unemployment must be tolerated in the interim.[14]

Now it is deficient demand for goods and services, and hence for labour, that simultaneously slows down the rate of price and wage inflation and brings about unemployment. There is no natural law that there must be a unique relationship between excess supply and

[13] For a survey of this evidence cf. Parkin, Sumner and Jones (1972).
[14] I have discussed this issue in more detail in Laidler (1971:(2)).

unemployment. Excess supply is not the only cause of unemployment. Structural imbalance in the economy, both as between industries and regions, is a source of unemployment as is the inevitable and closely related friction involved when the labour force is redeployed in the face of changes in the composition of output. If unemployment must be endured in order to reduce the inflation rate, then it is surely reasonable to expect governments to make an effort to minimise the amount necessary. This requires measures to make labour markets more efficient, both as transmitters of information about where job vacancies are and as providers of incentives and opportunities for individuals to equip themselves with the skills necessary to fill those vacancies, for this is the way in which the frictional and structural components of unemployment can be reduced.

A similar argument must hold about inflation. If we must put up with more inflation than we would like for a significant period in order to minimise the unemployment problem, then there is a great deal to be said for minimising the burden that it places on the population. Now, in an economy in which everyone always had perfect information about the future course of prices the cost of inflation would be relatively small.[15] Inflation would simply be one more factor to take into account when making decisions. Problems arise when information is less than perfect and mistakes are made. For example, people enter into private insurance and pension contracts with certain expectations about the future course of prices, the rate of inflation turns out to be higher than expected, and their real wealth is diminished. Or again Parliament sets state pensions and income tax rates presumably with the intention of providing the old with a certain minimum standard of living and imposing a certain pattern of real tax burdens on the working population. Inflation at a faster than anticipated rate ensures that what Parliament intended does not

[15] They would not exist at all if information was free, and there were no costs to be incurred in adjusting plans in the light of new information. It is precisely because information is costly to obtain, and because remaking plans is expensive, particularly when binding contracts have been entered into, that even predictable inflation is costly. It is worth noting explicity that distributional effects of the type discussed here occur at any time when the rate of change of prices deviates (either upwards or downwards) from the anticipated rate. They are not peculiarly the result of rising prices *per se*. I am grateful to John Foster for helpful discussion on these matters. The academically-minded reader will note that I am not dealing here at all with the welfare costs that arise during anticipated inflation from the failure of money to bear interest at competitive rates. It is my judgment that, over the last few years, these costs have been insignificant relative to the distributional effects on which I am here concentrating.

come about; poverty among the old and excessive tax burdens upon the working population are the result.

One could multiply such examples without difficulty, but enough has already been said to illustrate the nature of the problems brought on by the recent increase in the inflation rate. They are essentially distributional problems and there is nothing inherent in the inflationary process that prevents them being tackled as such. There is no reason in principle why state pensions cannot be pegged to the cost of living, nor tax rates.[16] There is no reason why holders of claims to private pensions cannot be compensated for the losses imposed upon them by the inflation rate's unexpectedly increasing since they entered into their contracts. Similarly, but on the other side of the coin, there is no reason in principle why the debtors who gain from inflation—for example householders with mortgages—cannot be taxed on the windfalls which unanticipated inflation brings them.

How easy it would be to deal with any particular distributional inequity that has arisen or could in future arise from inflation cannot be assessed without a detailed study. However, I raise this general question not because I have readymade answers to its many facets but because I find it surprising that, given that we have been living with inflation for so long, and given that so many people profess to be deeply disturbed by its adverse distributional effects, so little work has been done on devising the means whereby we can minimise these effects. Surely the most serious side effect of various governments' pursuit of incomes policies to reduce the inflation rate without increasing unemployment, always a futile pursuit since 1950, has been to distract attention from the problems of making labour markets more efficient and of making it easier for the general public to live with inflation. After all, if one thinks that one has found a readymade, rapid and costless cure for inflation there is no need to make the effort of investigating the means whereby the costs involved in curing it slowly by other methods may be minimised.

Thus, the policy implications of my analysis can be stated very simply. Adopt a flexible exchange rate and rely on the rate of monetary expansion to achieve, in the long run, the inflation rate desired; recognise that the inflation rate can only be reduced at the cost of

[16] We are beginning to see some movement in this direction, albeit in an unsystematic way. Old age pension rates are now reviewed annually, while increases in the minimum money income at which households become liable for income tax seem to be becoming more frequent. Professor Wilson's paper investigates the effects of inflation on pensions in considerable detail.

unemployment during the transition, so proceed slowly towards the target; recognise that the amount of unemployment required over a given period to reduce the inflation rate by a given amount is less the more efficient are labour markets, and the less is the structural imbalance in the economy, and also that much of the harm that inflation can do may be ameliorated by policies to compensate the losers; hence pay much more attention than hitherto to designing policies to deal both with the structure of the labour market and the distributional inequities produced by inflation. In short, and above all, face up to the fact that inflation is not a problem for which some costless panacea is likely to be found just around the corner, and instead utilise the considerable knowledge that we already have of its nature to cure it at as low a cost as possible recognising that this cost will not be zero.

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5

Incomes and Inflation

F. T. Blackaby*

Introduction

THE POLICY-MAKERS seem to have come to a conclusion about the nature of the current inflation in Britain. By policy-makers, I am thinking both of the civil servants involved and of the politicians. There is, I think, a reasonably wide Whitehall consensus now for a doctrine, or view, which might be labelled 'a wage-push doctrine of inflation with a high Trade Union content'.

Spelt out a little more, the view is that the rate of inflation is largely—not entirely, of course—determined by a set of leading wage bargains, though these are not necessarily the same ones from year to year. These set the targets for other bargainers, and, through their influence on other negotiations, through arbitration and through the more general use of comparabilities, they drag other settlements in their wake. So the centre-piece of this view is the wage bargaining process.

I think this approach is the right one, and indeed has been right all along. It has the great advantage of not colliding head-on with common observation—which is the trouble with doctrines which virtually ignore the existence of a Trade Union movement. It is, it is true, a politically convenient doctrine for the Government at the present time; but politically convenient doctrines are sometimes true.

It has taken a fairly long time for the wage bargaining process to get itself embodied into the established view about inflation—a point which has always puzzled labour economists. It is worth glancing back to see how it happened—with a quick history of what one might call the 'official' doctrines of inflation: those prevalent in the

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Government machine at the time. Of course, any such short account oversimplifies: there were always heterodox views dotted about here and there. But, as a rough and ready account, I think it corresponds reasonably to some kind of actuality.

At the end of the Second World War, we had the simple doctrine of the excess demand for goods (excess, because one is always talking about rising prices). This was immortalised, I think by Dr. Dalton, in the phrase 'Too much money chasing too few goods': it still survives, here and there—partly because of the immense plausibility of that little phrase. This was the period of a great deal of discussion of open and hidden inflation; inflation was not then—as it is now—synonymous with rising prices. Indeed price rises could help to fill the inflationary gap.

This doctrine gave way under pressure from those who argued that manufacturers did not set their prices like this—and in time produced some empirical evidence for full-cost theories of pricing. It was also weakened when prices went on rising after war-time shortages had disappeared. So the doctrine shifted. It was conceded that the prices of most goods were largely cost-determined: and the effect of demand was shifted back a stage. It was not excess demand for goods which caused the prices of goods to rise directly, but excess demand for labour which caused wage-rates and earnings to rise, and to send up costs.

This doctrine had a fairly long run. It had empirical support—both in the Phillips one-hundred-year relationship, and in the observed tendency at the time for the rise in earnings and wage-rates to vary inversely with the level of unemployment. In one form it led to the view that Trade Unions make no difference at all; and it also led to the policy conclusion which for a long time had a strong hold on Treasury thinking—that if only the unemployment percentage could be raised a little, prices would be stabilised. Here is the classic quotation from Professor Paish on the first of these propositions:

'The causal factor in the rise in wages and salaries has been, not the demands of the Trade Unions, but the ability of the employers to grant them without reducing their demand for labour. Excess demand has meant that employers have been in competition with each other for scarce labour, and it is this competition which has forced up labour earnings, with wages following with, in most years, a lengthening time-lag. It is probably true that the very existence of collective bargaining, with its administrative delays, has caused wage-

rates to rise more slowly than they would have done under similar conditions of excess demand in a free labour market'.[1]

Elsewhere Professor Paish suggested that the proportion of spare capacity consistent with long-term price equilibrium was equivalent to an unemployment rate of between 2 and $2\frac{1}{2}$ per cent.

This idea of a simple trade-off between unemployment and the rise in prices has, of course, been shattered by the figures for the last three years—1970, 1971 and 1972. Those who work in or near current economic forecasting are quite accustomed to seeing fairly long-standing econometric relationships gradually wither away and die. But it is not often that a relationship appears to blow up and sink virtually without trace, which is what has happened here. There is no need to labour this point.

Unemployment, even after making a generous allowance for the possibility that the figures since 1968 are not fully comparable with previous figures, is running at a level at which the rise in wage-rates should be at most 3 per cent, and prices should be stable or falling. This is according to the relationships which were used for policy recommendations in the sixties. The rise in wage-rates is not 3 per cent or less. Prices are not stable or falling. Both in the last three years have been rising faster than ever before in the postwar period, except for the short period when commodity prices leapt up at the time of the Korean War. All this is one more reminder that the economic system is part of a larger social system; and that when one finds a relationship in the economic system, it must be treated, not as an eternal truth, but as a temporary relativity, which will hold just so long as the major social groups go on behaving in the future as they did in the past, and no longer.

Expectations

The demand for labour by itself, therefore, as the main determinant of the rise in wages and earnings, will not do. However, one school of thought tries to salvage the relationship by introducing 'expectations'. As expectations shift up, so does the Phillips curve.

Further, according to this view expectations can be quantified, on the basis of the movement of past prices, with the help of the 'error-

[1] F. W. Paish, *Studies in an Inflationary Economy*, London, Macmillan & Co. 1962, pp. 116–17.

learning hypothesis'. According to this, people advance a view about the rate at which prices will rise next year. They base their behaviour on it. They then observe the actual rise in prices. They correct their view of the expected price rise by a certain fraction of the gap between their initial hypothesis, and actuality.

In most psychological experiments in which this model has been used, it is a necessary requirement that the experimentee should put numbers to his expectation, and should know, again in numbers, what actually happens. He expects four, and gets seven; next time he expects five and a half, and so on. For some expectations analysis in economics, this requirement holds. Most operators concerned with interest rates, for example, think in terms of precise numbers. They do know what they expected; and they do know the actual figures.

With prices, however, we must ask—who is it who is doing this quantified expecting, and this careful comparison of their expectation with actuality? Of whose behaviour is this a description? First of all, it is not a good description of the behaviour of people in general. We know that people in general only have the vaguest idea of what has happened to specific prices—let alone the retail prices index; it is wholly implausible that they are sensitively aware of the differences between a 5 per cent and a 3 per cent general rise in retail prices, for example. Both their expectations and their perceptions of subsequent actual price rises are vague in the extreme. The knowledge requirements of the model are not met.

If, then, it is not the general mass of the people to whom the model applies, is it perhaps the business-men who actually fix prices? The hypothesis in this case presumably is that, when they raise prices, they raise them by more than is needed to cover the increases in their costs, because they expect those costs to continue to go up and they do not want to raise prices too frequently.[2] If business men were doing this to an increasing extent, then one would expect the share of profits in national income to rise—since to an increasing extent they would be raising prices faster than the rise in costs justified. We do not observe any such increase in the profit share; rather the reverse. So that is strong evidence against this particular mechanism. Is it then, alternatively, the parties to the wage bargaining process? If so, it is unlikely to be the employers; they will hardly say 'we expect prices to increase faster in the future, so please accept an extra 6 per

[2] If this is the hypothesis, incidentally the retail prices index is not the appropriate index to use.

cent'. It is therefore presumably the Unions, or other people negotiating for wage increases, who are alleged to argue for those increases on the grounds that prices will continue to rise rapidly.

So the hypothesis comes down to the proposition, basically, that Trade Unions push for higher wages harder than before, because they expect prices to increase faster; an expectation which is based in the model on past price rises. But then the question immediately arises—how far does the introduction of the concept of expectations help? We already know that the movement of past prices is a major determinant of Trade Union push, and that consequently the faster prices have risen in the past, the harder they will push now. Saying that they do this because their expectations have changed may to some extent be true; but it doesn't really add much. It comes down to the proposition that the movement of past prices is important in Trade Union push. To say that it is important because it changes expectations is rather by the way.

Expectations and incomes policy

There is, incidentally, no logical connection between the acceptance of the expectations hypothesis about inflation, and the rejection of an incomes policy. They have tended to be connected in this country simply because, as it so happens, most of those who hold to this hypothesis also believe that all that can be done to control inflation is to bring down the rise in the money supply. In the United States, on the other hand, a number of economists support incomes policy precisely because they believe in expectations; they argue that a period of incomes policy is the only satisfactory way of breaking those expectations without accepting a long period of very high unemployment. Thus Mr. Edgar R. Fiedler, of the U.S. Treasury, speaking about the period in 1970 and 1971:[3]

> 'During that period the economy entered a cost-push inflation— . . . based not on union or corporate market power, but on the widely and deeply ingrained expectations of endless rapid inflation that were being cemented into the institutional framework within which price and wage decisions are made in our economy. . . . The price disease with which we had been infected during the 1960s

[3] *Brookings Papers on Economic Activity*, 1: 1972, p. 200.

was not being cured by the normal market forces because of the widely diffused psychological expectations of workers and managers for a continuing inflationary spiral.

The basic problem of 1971, therefore, was to subdue this inflationary psychology. If the economy had stayed in a slack condition long enough, no doubt the inflationary expectations would have been eliminated. But that was not a satisfactory solution; the process was taking much too long. Something had to be done to bridge this gap . . . this something was the economic stabilisation programme that was undertaken on August 15, 1971.'

Here, then, is what seems to me a very plausible presentation of an argument for an incomes policy, based precisely on the expectations hypothesis.

World prices

I would like now to turn to the argument that the view that Trade Unions are important in the determination of price movements is too parochial a view, because it does not take account of the extent to which price movements in any one country are determined by the movement of world prices. Briefly, I would argue that the movement of world prices puts a constraint, particularly on policy in any country which is a major exporter of manufactures. However this does not mean that the trend of prices in any one country is uniquely determined by the course of world prices.

The argument presented is, basically, that consumer prices in the main manufacturing nations in general must, and do, move in line with world (or U.S.) prices, until there is a devaluation or revaluation; then the exchange-rate changes temporarily disturb the relationship.

The argument, if it holds good, should hold for other trading nations as well as the United Kingdom, of course. However, we find in fact widely diverse consumer price experience among the main manufacturing nations—and the diversity cannot be explained by exchange-rate movements. Thus from 1963 to mid-1972 consumer prices in the United States rose 36 per cent. In Japan they rose 60 per cent, and in the Netherlands 63 per cent. The theory tells us that these divergencies must have been caused by substantial

devaluations of the florin and the yen as against the dollar. In fact over the period both currencies were *revalued* as against the dollar.

However, if one just takes the case of the U.K. as against the U.S., it is putting the cart before the horse to argue that consumer prices move together in the two countries until there is a devaluation: and the devaluation causes the divergence. Exchange-rates are changed because prices have already moved out of line; and the exchange-rate change is essentially a recognition of a divergence which has already taken place. It is true that a devaluation does then cause some further divergence; but that is usually a small addition to a major divergence which has already occurred.

So far as the movement of prices in any one country is concerned, the movement of world prices should be considered more as a constraint on that country's economic policy than as a major determinant of its consumer price trend.

The determinants of the leading bargains

At this point, it is worth looking back at some of the criticisms of those who, in the lean years of the early sixties, expressed doubts about the policy of attempting to control inflation through unemployment. Part of the doubt, it is true, arose for a reason that is not relevant here—that for policy purposes it is not enough to know the trade-off. Policy had to be more Benthamite than that; it needs some estimates of the comparative misery caused by different employment rates as against the misery caused by different rates of price increase. Here I am concerned with another doubt, also expressed in the sixties: was it possible to read off, from temporary short periods of high unemployment, the effect on rises in wage-rates of relatively long periods of high unemployment? For the obverse relationship between unemployment and wage-rates could also be explained by Trade Union behaviour—in that they pushed hard for increases when the going was good, and cannily bided their time for a little when the going was bad. But if this was the explanation, it did not follow that they would bide their time right through a long bad period.

This view has been expressed, in a succinct way and in a secular context, by Professor Phelps Brown:

> 'Up to World War I, collective bargaining was concerned with particular industries and localities, with each bargain largely

independent of the others. After World War II, the annual wage round began, in which the settlements no longer depended on the economic prospects of the individual industry, but on what others got. However, the consensus of expectations followed the cycle of the economic situation. Now the consensus is self-propelled, not anchored to economic indicators. So it is necessary to think what new institutions are needed for that anchorage. For at the moment we have neither convention nor economic anchorage. This is my analysis explaining the wage explosion.'[4]

This explanation has the advantage that it holds both for the period before 1969 and for the period after; and it also has the advantage that it is concerned, not with the year-to-year fluctuations, but with the long-term rising trend. Analysis has tended to be preoccupied with the short-term variations—partly because the old obsession with the idea of a business cycle dies so hard. Indeed quite a number of those who have theorised about inflation seems not to have noticed the long-term upward trend at all. If it is true, as Professor Phelps Brown argues, that the short-term fluctuations are merely the result of Trade Unions acting in parallel with the economic situation—a practice which has now ceased—then the case for looking at the long-term trend is strengthened. This is what has happened to the size of annual wage-rate increases: around 4 per cent in the 1950s, 6–7 per cent in the early 1960s, 8–9 per cent in the late 1960s, and over 10 per cent now. The main quantitative fact about inflation, and the main thing we want to explain, is the upward trend in the rate of price-rise over time.

If one thinks about bargaining and the results of bargaining, perhaps the best approach is to think of the pressures on those on either side of the bargaining table. First, they are likely to be multiple. There are the separate sets of pressures on the two negotiating sides to start with: the two sets are unlikely to be the same. Then on the Union side, one must think not only of the pressures acting directly on the negotiators themselves, but also of the pressures on the delegates to the Annual Conferences, and indeed on those who elected the delegates. Secondly, certainly on the Union side, there is no reason to think that all the pressures will be strictly economic. Many economists get rather nervous if you say this. They are determined at all costs to keep the question of inflation firmly locked in

[4] *An Incomes Policy for Britain*, edited by Frank Blackaby, Heinemann Educational Books, p. 3.

their departments. It is an article of faith that wage pressures must be determined by past quantifiable economic phenomena. The difficulty with this view is that it is fairly patently not so. Trade Unions in this country are not simple economic bodies; they are deeply involved in politics. In many key bargains, they are involved, at only one remove (if that) with the Government. The extent to which they will push in that situation will depend on a wide range of discontents, not just economic discontents. 1972 is a good example—but not the only example. March 1948 to March 1950 was an example of the same force working in the opposite direction, when for two years wage-rates rose $2\frac{1}{2}$ per cent a year (with unemployment below 2 per cent).

Once one accepts the idea that there are gradual shifts in social values, in aspirations, in attitudes to authority (and there is independent evidence of shifts of this kind) it really is not difficult to see a number which could contribute to greater pressure on Union negotiators to raise the money wages of their members. Here is another long-term entry, to add to the possible long-term effect of price expectations. The enticements to people to try to raise their standard of living have been strong and have grown stronger in the post-war period. The average working man comes home in the evening and has dangled before him, at quarter-hour intervals, tantalising pictures of objects and experiences he cannot afford to buy. This is strong pressure: there is quantitative evidence that it is much stronger than the effect of the advertisement he glances at in the newspaper. So is it so surprising, after years of such exposure, that dustmen too should begin to think that they should be able to afford Mannikin cigars and go to Majorca for their holidays?

Or again, there is evidence in a number of fields of a declining willingness to accept unquestioned authority. The Universities provide examples. There is more questioning than there used to be of status relationships: and with this goes a questioning of income differentials as well. The question 'Why should that man have an unquestioned right to tell me what to do?' and the question 'Why should that man be paid five times as much as I am?' are linked. Increased discontent with relative status, leading to increased discontent with relative income: another long-term trend: another potential pressure on negotiators.

One more simple force on the Union side: a ratchet effect. Trade Union negotiators like to report to their Annual Conferences negotiated wage increases at least as high as last year's, and preferably

higher. It is the justification of the custodianship of their office. To go much below last year's figure—unless for some reason that figure was wholly abnormal—is a defeat. This can build in a ratchet effect, quite independently of price expectations.

Finally, there are the changes in the pressure on the employers' side as well. A number of employers have said—and there is really no reason to doubt them—that they are more explicitly conscious than they used to be of the relative cost of a strike, as against the relative cost of conceding a high wage increase. This is perfectly possible, and quite logical.

With this multiplicity of forces in the field, I think it is most unlikely that one will be able to construct a good forecasting model—either in the short or long term—for the rate of wage or earnings increases. I am thinking here of models which actually forecast the real future with some success, not models which just fit past experience well. There is another reason which makes forecasting virtually impossible. It is that it is most unlikely that we shall have again, as far ahead as we can see, a 'Government policy-off' period. At a minimum, the Government will continue to try to influence the increase given to its own employees and to those employed in the nationalised industries—and that is one-quarter of the total working population straight away. And the odds are strong that its intervention will be greater than this. So there is no 'policy-off' period ahead in which one can test new estimates of the consequences of the 'natural' forces at work on the size of the wage bargains. The future size of wage-rate or earnings increases seems likely to remain unforecastable—except for the short period on the basis of claims already agreed—for some long time to come.

Anti-inflationary policy

Some people have argued that, as we clearly do not know the relative importance of the pressures behind the high wage-bargains of recent years, we are in no position to say anything about policy; and we should therefore keep quiet until we know more. This would indeed be a counsel of despair, in my view, since I have argued that it is most unlikely that we shall ever be able to quantify with precision the relative importance of the multiple pressures on the bargainers. But I do not think it is true. I think we know enough to know the

direction which policy has to take. We know, first, that for the rate of price increases to be moderated, the size of the major wage bargains has to come down. Secondly, we know that the Government is unlikely to be able to do this by using unemployment in the range hitherto experienced. Thirdly, we can be reasonably sure that the recommendation that the Government should try an even higher level of unemployment is not likely to have much approval. So some other way has to be found of getting those key bargains down.

As an intermediate policy objective, that sounds fairly simple and straightforward—to lower the size of the key wage bargains. In fact, I think it leads on into immense policy complexities: and that probably in the end—which may well be a decade or two off—it will involve the Government, or some arbitral body, in extensive intervention in fixing relative incomes. The problem of dealing with inflation now opens up some very large questions indeed—basic questions about the extent of Government intervention in the economy, and about how one comes to any judgement about the rightness of any pattern of income distribution.

However, there are those who accept the argument—that the size of the key bargains must be moderated—but are concerned to find ways of doing it which extend the range of Government interference as little as possible. Indeed, all kinds of people now accept this view of inflation—including institutions which not long ago enthusiastically propagated the idea that Trade Unions made no difference to the rate of inflation at all.

The main argument for a generalised type of intervention is that it is both undesirable and administratively impossible for the Government to intervene in the details of relative pay. This point of view has been put as follows:

> 'I consider that it stands out a mile that a centrally determined set of rules is impracticable. This is because of the diversity of wage-fixing arrangements, the diversity of size and location of industries, occupations and firms, the desire of autonomy by unions, and above all the diversity of payment systems, with piece-rates, over-time and so on. The alternative is to change the institutional set-up so that bargaining strength is altered when excessive wage claims are pressed. One method is to impose a tax for pay increases above a stated norm. If it were progressive, then the more you pushed, the greater the resistance. No doubt the Inland Revenue would be unenthusiastic. Another alternative is

that if there is a trade dispute in support of an above norm claim, there should be a change in bargaining strength—for example, strike indemnity; definition of the action as 'unfair industrial practice'; or a penalty on the Union backing the strike. The Trade Union movement must give up some of its power; some proposals put forward suggest that it loses power entirely to some central body. This proposal still leaves the Unions with extensive freedom and the minimum disturbance of the present structure.'[5]

There are various comments on this type of proposal. First, there is the question—if the purpose is simply to change bargaining strengths, why introduce the complication of a norm? For if one considers that the relative incomes produced by the existing system are all right, and the only problem is to lower the general level, then one wants something which weakens Union power, or strengthens employers' power, all along the line. The introduction of a norm would simply lead to a very heavy concentration of claims and awards around that norm: it would be an institutionalised percentage. It is quite possible that the idea of sanctions operating only above a certain norm was included in the schemes suggested, so that it would not appear too much as simply a Union-bashing measure. But the norm certainly reduces the scheme's flexibility.

There is a more general problem, which is linked to the point already made in another context: the Unions are not simply pressure groups for higher wages. They represent the working class in the social system. The pressure for higher wages, in one aspect, is an attempt by the working class to better its position, as against that of the owners, managers, and other members of the middle class. Further, it has not been a wholly ineffectual struggle. This used to be the view: that the share of wages in the national income never changes. In fact, it has changed over the past decade; and further, the average working-class income has probably risen more than the average middle-class income. There will be plenty of people, therefore, who will interpret any attempt to weaken the bargaining power of the Trade Unions as a measure taken by the owners, managers, and middle class to preserve their relative position. Indeed that will in fact be the objective of some who support the proposal. So one has to think of the possible range of political consequences of a proposal of this kind.

[5] Op. cit., p. 6.

It is not impossible that it might have a perverse effect, and strengthen Trade Union power rather than weaken it. The extent to which a Trade Union uses its power depends, not so much on the presence or absence of legal constraints, but on the militancy of its leaders and the strength of feeling of its members. A measure which imposes some restrictions on Union activity, if it at the same time leads to greater militancy and a stronger sense of grievance, could quite possibly increase the Unions' effective push for higher wages rather than reduce it. The Trade Unions in the post-war period have not by any means used their potential power to the full. Many Unions on many occasions could have got more than they did if their leaders had been determined to go for every penny they could get, and if their membership had been sufficiently aggrieved to support the leadership through a long strike. I would argue that Trade Union push will be reduced if and when enough of their members are persuaded that the system of settling relative wages will give them a reasonably fair result without their having to strike.

Finally, one advantage claimed for these generalised forms of intervention is that relativities are not disturbed. This is, of course, an advantage so long as existing relativities are acceptable. If, behind the wage push, there is an implicit discontent with existing relativities, and if indeed there is no obvious justice in the pattern produced by the bargaining process, then the advantage is not an advantage at all.

The alternative to some form of generalised intervention is some form of detailed intervention—in short, an incomes policy in what one might now call the traditional sense. On this, it is not easy to decide which points to make: there are so many. The problems of a workable incomes policy ramify in all conceivable directions. I don't think it would be particularly useful to discuss the immediate political problems, as of August 1972; but equally it would be cheating to ignore the political problems altogether. For the key problem is essentially a political one—that of combining sufficient consensus on the part of those concerned with enough statutory power to prevent large-scale evasion.

First, however, to comment on two basic objections. There is the argument that incomes policies have almost universally failed in the past, and that therefore it is foolish to try them in the future. Briefly, not all incomes policies have failed all the time. For example, the current United States incomes policy is producing an enviably low

rate of price increase there: it seems effectively to have been brought down from over 5 to something below 3 per cent. On the U.K. incomes policy experience, it is understandable that someone judging it in 1969 might have considered it largely a failure; it is much less certain now that it was a failure, when it can be compared with the period after as well as the period before. Further, the U.K. 1964–69 policy was a relatively weak one. Not many of the major claims went to the National Board for Prices and Incomes; and it only had powers of postponement. In sum, past experience suggests great difficulty rather than conclusive impossibility.

A second objection is that the multiplicity of points of decision and techniques of payment makes an incomes policy administratively impossible—Professor Meade's point. However, in the beginning an incomes policy would be effective if it just dealt with the major claims (including plant negotiations in plants employing, say, more than 2,000 workers). Clearly a very large number of awards are purely passive, following the trend of the ice-breaking claims in front; if the figures for the major claims are brought down, the others will follow.

The problem of the mix of statutory and voluntary policies certainly seems to be the problem of reconciling two wholly irreconcilable positions. For a policy does need some degree of tacit consent —at least to the extent that there will not be major effective strikes against it. Ideally, it should have official Trade Union support; and the official Trade Union position is wholly opposed to any statutory powers at all. On the other hand, a wholly voluntary policy is likely to be disregarded to such an extent that it becomes completely ineffective. Full consent is not needed. We cannot expect a system in which everyone all the time declares himself wholly satisfied with the judgement made about his income. The requirement is that he should not think it so unjust that he is willing to take industrial action. To put the problem in real terms: when some kind of independent body rules that the miners' increase shall be $8\frac{1}{2}$ per cent and not 15 per cent, and the Coal Board is instructed, under legal penalty, to pay no more than $8\frac{1}{2}$ per cent, under what kind of circumstances will the miners grumblingly accept?

I would like to set out some such circumstances here:

First, there is the obvious requirement that policies, of one kind or another, must be seen to cover all incomes, and not just wage incomes. Otherwise the legislation will appear as class legislation.

Here, it is worth quoting one of Professor Phelps Brown's requirements for a workable incomes policy: 'The employee is concerned above all with fair relativities—he will reject any form of restraint that threatens to worsen his position differentially, but he has shown his readiness to accept restraints that apply in equal measure to all. The requirement follows that particular decisions concerning pay shall not be taken independently of one another, but must be subject to guidance, so as to form part of a unitary and consistent course of change, in a structure whose proportions do not offend the employee's notion of fairness.'[6]

Second, it is probably much better if the State transfers as much of incomes policy as possible to an independent Board, or set of Boards. There are a number of reasons for this. There is the basic argument against the extension of centralised State power. The Boards should not just be creatures of the Government, but should have independent power of their own. Secondly, the Government is a large employer in its own right :and that makes its position as an arbitrator doubtful. The Government does not have to instruct the Boards about norms: it can give evidence to them—but it can safely rely on the Boards' commonsense that they would not set norms which are absurdly high. The current American experience is important here; the Prices and Wages Boards have been allowed to get on with deciding their own rules and techniques without constant directives from the central administration. It would, however, be important that these Boards should not simply consist of employers and Trade Unionists —there should be a substantial representation of independents. Professor Phelps Brown goes further than this, and argues for techniques of self-government: 'For a number of reasons the promulgation of norms and exceptions and the endeavour to impose them from outside the bargaining unit have proved ineffective. The requirement follows that incomes policy be internalised; but this it cannot be unless it is in some measure a matter of self-government—those who are to observe it must have taken part in formulating it'.[7] This is a strong requirement; it is perhaps rather a direction in which incomes policy might evolve, rather than a requirement of the early stages.

Thirdly, any change in the system needs a considerable effort of persuasion and information. It is, I think, no coincidence that the

[6] Op. cit., p. 4.
[7] Op. cit., p. 4.

one successful period of wage restraint in Britain—from March 1948 to March 1950—was also a period when there was a great deal of Government information (or, as the critics called it, propaganda) about the state of the economy, its progress, and the requirements of success. It is an absurd situation when a large proportion of the population see no connection between wage increases and price increases. This is also a job better done by an independent agency than by the Government direct.

The advantage of a policy which intervenes in a more detailed, rather than in a general way, is not only that it has a higher survival value in the long run. It is also that it can be an instrument for producing a greater degree of equity in the relativities between occupations—including the professions—and further it can be an agent for change in moving towards more civilised methods of payment for work done. No doubt it will be a long time before the use of bargaining strength is wholly eroded. But the time must come, because it is a failed procedure, and we cannot go on forever with failed procedures. It has failed in two ways. Not only does it give figures that are too high. The relativities it produces have no justification. However, once one accepts the principle that relativities must be settled in some fairer way, that principle must be applied, not just to wage relativities, but over a much wider field of incomes.

I can well imagine the comment on this paper, that large parts of it have nothing to do with economics. I think that is true. There are powerful non-economic elements in the determination of the rate of inflation, and certainly the problem of devising workable methods for dealing with it is also a problem mainly outside the field of technical economics. So I will once more shelter behind authority, quoting Professor Phelps Brown's Presidential Address to the Royal Economic Society in 1971:

> 'For the economist whose search for causes brings him up against convention, mood, passion or culture to say 'At this point I stop: you must send for another trade' is quite usual but quite stultifying. When the actual way in which decisions are reached in the board room or across the bargaining table has been discussed, it has been said that economics as such has nothing to contribute. Down with 'economics as such'. Let the scope of our inquiries be determined not by the customary blinkering of our field of view but by what the subject-matter presents. Where an economic problem arises, let us observe whatever seems significant, and follow clues to causes wherever they may lead.'[8]

[8] *Economic Journal*, Vol. 82 No. 325, March 1972.

6

Employment Policy: What Went Wrong?

M. C. Kennedy*

Introduction

IT IS twenty-eight years since this country became formally committed to a policy of 'high and stable' employment. The White Paper of 1944,[1] together with the signing in the same year, of the Bretton Woods Agreement, held out the hope that two important lessons of the Keynesian Revolution had been learned: first, that governments could successfully maintain high levels of employment by influencing total demand for goods and services; second, that their freedom to do so would not be inhibited by an obstinate adherence to permanently fixed exchange rates. After the devaluation of 1949 the stage seemed set for a period of high employment—higher, perhaps, than had been envisaged at the time of the White Paper. But as the post-war boom ran out of steam the percentage rate of unemployment, instead of being held down, began to show a rising trend. This rise has continued up to the present time—so that today the percentage unemployed is more than three times what it was in 1955.

It is hardly surprising, then, that employment policy has come under heavy critical fire for a number of years. Much of this criticism has focused less on the rise in unemployment over time than on the size and frequency of its fluctuations. Governments have been accused of following so-called Stop-Go policies, meaning that they have allowed the economy to alternate between phases of rapid expansion and phases of near-stagnation. Some doubt still remains as to whether these cycles in output and employment have been brought about deliberately, or whether they have not sometimes occurred because of technical and diagnostic errors. And it is this question which I hope to settle in the latter half of this paper.

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[1] *Employment Policy* (Cmnd 6527), 1944.

Was policy 'destabilising'?

Meanwhile there is an associated problem which has received more careful attention. This is the problem raised by Mr. Dow in his important book *The Management of the British Economy.*[2] In a much quoted passage which refers to the period from 1952 to 1960 he writes:

> 'As far as internal conditions are concerned, then, budgetary and monetary policy failed to be stabilising and must on the contrary be regarded as having been positively destabilising . . . . . Had tax changes been more gradual and credit regulations less variable, demand and output would probably have grown much more steadily.' (*Op. cit.* p. 384)

The key word in this quotation is 'destabilising', and it raises a much more serious question than the Stop-Go criticism. It suggests not merely that cycles have been allowed to happen, but that they have turned out to be more severe than would have been the case if the government had not engaged in the Keynesian techniques of fiscal management.

To decide whether Dow's criticism is valid it is necessary, as Professor Little indicated in his review of the book,[3] to make a comparison of the actual course of the economy with an estimate of the course it would have taken in the complete absence of discretionary policy. Comparisons of this kind have been attempted by three authors: Mr. Bristow,[4] Professor Hansen[5] and more recently, Professor Artis.[6] Each has sought to reconstruct the path of the economy as it might have been in the absence of policy intervention, and to apply a formal test of the question whether or not policy was destabilising.

Of the three authors mentioned it is Professor Hansen who comes nearest to the position taken by Dow. His study is a five-hundred

[2] J. C. R. Dow, *The Management of the British Economy* 1945–60, London, Cambridge University Press, 1964.
[3] I. M. D. Little, review in *Economic Journal,* December 1964, of Dow *op. cit.*
[4] J. A. Bristow, 'Taxation and Income Stabilisation', *Economic Journal,* June 1968, pp. 299–311.
[5] B. Hansen, *Fiscal Policy in Seven Countries* 1955–65, Paris, O.E.C.D., March 1969.
[6] M. J. Artis, 'Fiscal policy for Stabilisation', in W. Beckerman (ed.) *The Labour Government's Economic Record* 1964–70, London, Duckworth, 1972, pp. 262-99.

page report to the O.E.C.D. upon the operation of fiscal policies in seven different countries, (the U.K., Belgium, France, Germany, Italy, Sweden and U.S.A.). It is a very thorough piece of work, and, not surprisingly, is beginning to be quoted in contemporary textbooks of economics.[7] It stands apart from the studies by Bristow and Artis in being longer, and in coming to the striking conclusion that the United Kingdom has not merely destabilised its domestic economy, but is unique among the countries studied in having achieved this unwelcome result. His most quotable passage reads:

> 'Nevertheless, during the period 1955–65 the total effects of budgetary changes in the United Kingdom were almost systematically destabilising with respect to domestic demand, production and employment in the sense that fluctuations were reinforced, or simply created by budgetary and other policies. The United Kingdom is alone among the countries here in having destabilised her domestic economy.' (*Op. cit.* pp. 443–4)

There is no doubt that this conclusion, provided it is correct, is a bitter pill to swallow. It may be (and has been) taken to imply that the country which was most deeply committed (*sic*) to stabilisation was also the only country to do more harm than good by such a policy.

The validity of Professor Hansen's conclusion, however, has to be assessed in relation to the methods by which it was derived. The procedure he adopted was to measure the trend rate of growth of national output, and then to compare the actual growth rates each year with the trend. This provided a measure of the dispersion (the root-mean-square deviation) of actual growth rates around the trend rate. His next step was to calculate what the growth rates would have been in the absence of fiscal intervention, and from this series of 'policy-off' changes in output, he was able to derive a measure of 'policy-off' dispersion around the trend. The final step was to compare the two measures of dispersion, policy-on and policy-off, and from these to deduce whether the degree of stability had been improved by fiscal policy.

The question which this procedure seems to raise is whether economic stability should be appraised by reference to the trend *rate* of growth or the trend *level* of output. If the trend rate is chosen (as it is by Hansen) then it must be asked whether every deviation

[7] For example, A. Peacock and G. K. Shaw, *The Economic Theory of Fiscal Policy*, London, Allen and Unwin, 1971, pp. 190–4.

from the trend rate is necessarily destabilising. What happens, for example, when an economy which has been growing on trend, and with full employment, for a year or two suddenly lapses into recession? Does it then have to go on growing at the average of its previous growth rates, or should it not grow faster? If it grows at its average rate then this will simply tend to perpetuate a shortfall of total output from full potential. Yet this is precisely what the country must do if it is to maximise stability on the lines of Hansen's norm. It seems, therefore, that Professor Hansen has been guilty of a confusion between rates and levels, and that the norm by which he has measured instability is not appropriate to that task.

The other questionable element in Professor Hansen's study concerns his definition of stabilisation policy. This is taken to embrace not only the usual discretionary tax changes, but also all changes in government expenditure (and public investment). These are included regardless of whether they were intended to stabilise the economy, or whether, as is usually the case, they were made for quite distinct social or political purposes, such as, for example, the needs of defence or of public health.

Whilst the Hansen results are open to challenge the same criticism cannot be levelled at the studies of Bristow and Artis. These define the stabilisation norm as the trend *level* of national output, not its rate of change, and they have excluded government expenditure from their definition of a stabilisation instrument. The only criticism that does seem appropriate is that the trend level of output is derived from actual levels, and in so far as these have entailed a progressive increase in the rate of unemployment, as in the U.K. after 1965, successful stabilisation does not necessarily spell full employment. This objection, however, may not be serious for the period prior to 1965.

The procedure followed by Bristow and Artis is to prepare a quarterly series for 'policy-off' GDP by systematically removing the effects of all policy measures introduced after the starting points for their exercises. Thus the difference between the policy-on and policy-off level of GDP for a particular year, say 1960, will be the cumulative effect of all measures introduced after a certain date, which in Bristow's case was 1955. The effects of the measures themselves are calculated on the lines suggested by Hopkin and Godley.[8] The next step in these exercises is to estimate the logarithmic time trends for

[8] W. A. B. Hopkin and W. A. H. Godley, 'An Analysis of Tax Changes', *National Institute Economic Review*, May 1965, pp. 33–42.

GDP, both policy-on and policy-off, and to compare the two series for stability by means of the ubiquitous R^2 statistic.

The results from these studies have not been spectacular. Bristow's exercise came out marginally in favour of a stabilising role for policy after all, whilst Artis came to the reverse conclusion. But in both cases the difference in the degree of stability for the policy-on and policy-off regression was too marginal to permit a confident conclusion either way (see below):

		R^2 values for fit of GDP to trend	
		(a) Policy-on	(b) Policy-off
Bristow	1955–1965	·9077	·8979
Artis	1958–1970	·961	·973
	1965–1970	·976	·988

In each of three periods of comparison the margin between the R^2 values was only 1 per cent.

These numerical results are not altogether surprising in view of the rather small magnitudes involved in fiscal changes. The estimates by Hopkin and Godley put the effect of 6d (2½ new pence) on the income tax at roughly ¾ of one per cent of GDP; the effect of a full use of the 'regulator' powers is put at roughly 1 per cent. On the basis of such calculations, which allow for multiplier and accelerator effects, the cumulative impact of fiscal changes over the period 1955–1965 reaches a maximum of only about 2 per cent, and a maximum variation between successive annual periods of only 1¾ per cent of GDP. It must follow that the policy-off and policy-on levels of GDP will seldom be far apart and, therefore, that no startling divergence can be expected to appear between the fits of the two series to their respective time trends.

The only substantive conclusion to be drawn from these studies is that fiscal policies measured by the effect of periodic variations in taxes have, by and large, made little real difference to the stability of the post-war economy. From this it is easy to slip into the further conclusion that Keynesian economic policies, defined in a much broader sense, have been a failure. There are, however, reasons why such a deduction may not be warranted. Even if it is assumed that the observed instability has been a consequence of technical mistakes over 'fine tuning', it would still not follow that the postwar cycle has not been softened by the acceptance of economic intervention along Keynesian lines. The fact that governments have expressed their

determination and ability to prevent serious recessions from developing must, through confidence effects, have gone some way to raise both the stability and the level of business fixed investment. These effects cannot be measured, but it is difficult to believe that they can have failed to make the post-war world more stable than it would have been in the absence of the Keynesian revolution in economic policy.

Instability: what went wrong?

The other reason why the exercises by Bristow and Artis may be misinterpreted is that they do not touch upon the question of why the instability occurred, and why, in particular, the economy had to follow a cyclical course. To this question there are really two types of answer. The first answer, which is also the one most usually given, is that cycles in the pressure of demand have been deliberately engineered by successive governments; that there has been a conflict between full employment, on the one hand, and price or exchange rate stability, on the other; and that this conflict has been resolved by going for full employment at or near a General Election and allowing slack to develop at other times. In short, the first answer to the question posed is that cycles have been deliberately engineered.

The second possible answer is that cycles have been accidental: that the authorities have tried to steer a stable path for the economy and for employment, but that they have been thwarted in their intentions by an inability to diagnose the patient. In short, the second proposition is that economic policy has been guided by mistaken economic forecasts.

This second view of what went wrong is not one which has been widely considered. This lack of consideration may, perhaps, be attributed to a certain reluctance to admit that policy decisions are taken on the basis of forecasts at all. There is, for example, a school of thought which believes that policy measures are, or should be, initiated by the movement of a single indicator, such as the level of GDP, or its rate of change. The stabilisation problem is then explored in terms of lagged responses to some such stabilisation rule, and of the attendant possibilities of oscillation. This kind of analysis, however, bears little relation to what actually happens. Decisions on fiscal policy are taken on the basis of a comparison of

the forecast change in output and the planned change. If the forecast change is higher than planned, policy will be deflationary; if it is lower, policy will try to stimulate.

It follows that the accuracy with which the policy-maker attains his objectives depends crucially upon the accuracy of his forecasts. If these are too high, then fiscal stimulation will be inadequate; if they are too low, then deflationary measures will be overdone.

Accepting, therefore, that errors in the economic forecasts may lead to mistaken policy changes in particular years, is there any reason to suppose that they will lead to a cycle? The answer here seems to depend on whether there is some systematic tendency to misread particular phases of the cycle: difficulties in predicting investment or stockbuilding could lead to this result. Some years ago I made a study[9] of forecasts made by the National Institute of Economic and Social Research. It showed that in 1959 and 1963, two years of particularly fast expansion, the forecasts had been too low; whilst in 1962, a year of recession, the forecast was much too high. These forecasts were not official, but they were arrived at by similar methods to those of the Treasury. Thus the possibility arose that the recovery of 1959, and the cycle from 1960 to 1963 might have been primarily caused by similar errors in the official forecasts.

To test whether forecasts have been a significant cause of instability it is necessary to have some idea of what the forecasts were. Since 1968 we have been fortunate in that the official forecast has been published with the Financial Statement and Budget Report. We know, for example, that in March 1972 the government was forecasting a rise in GDP of 5½ per cent between the second half-years of 1971 and 1972. This was the published forecast. And, in so far as it included the effects of the Budget measures, it may also be regarded as the government's short-term plan for the year.

It is unfortunate, however, that, prior to 1968, there was no regular publication of the official forecasts, and it is equally sad that the Treasury has not yet summoned up the courage to publish the backlog of forecasts made between 1952 and 1968. This means that economists and historians who are interested in the conduct of policy have to resort to a kind of guessing game as to what the forecasts were at particular times. Fortunately, the game is not pure blind man's buff, since on most occasions there is enough informa-

[9] 'How Well Does the National Institute Forecast?', *National Institute Economic Review*, November 1969.

tion either in the Budget Speech or in the Economic Survey to arrive at a not too disreputable estimate of what the forecasts were. The best Chancellors of the Exchequer have felt it their duty to reveal at least something of the rationale behind their policies. Thus fairly firm estimates of the forecasts may be made for 1967 and the period from 1959 to 1964. On the other hand there are some years, mainly before 1959, but also including 1960, 1965 and 1966, when the government was extremely reticent about its forecasts. It must be accepted, then, that a table, such as A.1., which (see p. 85) purports to show what the official forecasts were at the time of each main Budget, is of rather variable quality. It shows genuinely official forecasts (for the second half of the year) for 1968–1972, and estimates of a varying degree of reliability for the earlier period. For 1953 to 1958 it uses the calendar year forecasts given in Dow;[10] for 1959 to 1967 the forecasts are for the 4th quarter of the year and are derived, as far as possible, from the Budget Speeches and Economic Surveys.

The lesson that seems to emerge from Table A.1 is that economic forecasts, taken over the whole period from 1953 to 1971, have not been as seriously misleading as might have been supposed. In recent years, for example, there appears to have been no forecast error in excess of 2 per cent of GDP, and before 1959 there was only one large error. It is only in the period from 1959 to 1963 that the forecast errors were both large and cyclically distributed. The comparison of these years with the periods before and after may be summarised as follows:

	1953–1958	1959–1963	1964–1971
	(percentages of GDP)		
Mean forecast error	·9	2·0	·8
Maximum positive error (actual greater than forecast)	2·8	4·0	·5
Maximum negative error (actual less than forecast)	nil	−2·6	−1·8

It seems then that the thesis that cyclical instability occurred chiefly on account of forecasting errors is one that can be sustained only for the five years running from 1959 to 1963. This period is interesting enough to warrant a small digression.

The period began with a highly expansionary Budget in April 1959 followed by a General Election in October. Total output during the

[10] Dow *op. cit.* p. 136.

course of the year rose by nearly 7 per cent. It is not surprising, therefore, that the Budget of 1959 has been taken as the archetype of election budgets; indeed the impression was positively encouraged when, a year later, Mr. Amory, the Chancellor of the Exchequer,[11] announced that 'Our policy in 1959 was to stimulate the revival of business activity, while maintaining price stability, and that policy has succeeded.' In fact the policy which Mr. Amory claimed to have pursued seems to have gained strength with hindsight. For whilst GDP rose very fast in 1959, the forecast for the year (allowing for the effects of the Budget) was actually for a very moderate increase. Thus the Budget Speech[12] spoke of consumer's expenditure as unlikely to increase 'at the same rate as it had been over the previous six months', and this had only been 3 per cent at an annual rate. It mentioned only a 'small rise' in private investment, 'some increase in the value of stocks', 'roughly constant government expenditure', and exports 'running at about the present level'. Taking all these statements together the forecast seems to have been for a rise in GDP during the course of 1959 of only about 1½ per cent, a figure which is raised to 3 per cent if allowance is made for the effects of the Budget. This, however, would have been little more than sufficient to hold unemployment on an even keel. Thus it seems wrong to claim that the Budget of 1959 was a plan for an election boom.

In the next two years the forecasts did not turn out too far wrong, so that the government may be said to have achieved the level of activity, a fairly high one, which it was aiming at. But in 1962 there was another forecasting error, this time in the opposite direction. The forecast seems to have been for an increase in GDP of about 4 per cent during the year. It was this figure which the Chancellor of the Exchequer[13] quoted in reference to the rise in personal spending; and the impression is confirmed by the Economic Survey[14] which stated that there would be 'some increase in the pressure of demand as the year progresses'. In point of fact GDP rose 2 per cent less than seems to have been predicted, and the economy sank into an unintended recession. In the following year, 1963, a recovery of demand was undoubtedly planned but the expansion turned out faster than intended.

[11] H. C. Deb, 4th April 1960, 40.
[12] H. C. Deb, 7th April 1959, 29.
[13] H. C. Deb, 9th April 1962, 965.
[14] Economic Survey (Cmnd. 1678).

It is evident, therefore, that the ups and downs of the period from 1959 to 1963 fit well with the forecasting explanation of what went wrong. Yet, ironically enough, one of the reasons why the Treasury was in such disgrace at the time, and why the Department of Economic Affairs was established in 1964, was that it was still widely believed that the Treasury had been pursuing 'stop-go' policies, with the priorities alternating between full employment and the balance of payments.

Planned instability and potential output

The most effective way of determining whether cycles in the post-war economy have been planned or unplanned is to compare both planned and actual GDP with the level of potential output. Potential output is the level of GDP which is estimated to coincide with some given intensity of labour utilisation. If the intensity chosen represents the 1955 unemployment rate of 1·0 per cent (G.B., wholly unemployed, excluding school-leavers), then it is possible to anchor a series of potential output levels at the actual level of GDP in 1955. The series may then be taken to increase from this level at the annual growth rates estimated by Godley and Shepherd[15]: these show potential output as rising by 2·8 per cent per annum in 1955 and by over 3 per cent in 1961–1964. This series, which is given in Table A.2 (see p. 87) is continued after 1964 at a steady growth rate of 3·0 per cent. There is some uncertainty about this last assumption, but it can be supported on the grounds that the average annual growth rate of GDP from 1963 to 1968, a period which began and ended with the same unemployment rate, was of this order of magnitude. Thus the assumption is not likely to be far off the mark.

The next step is to calculate the actual levels of GDP from 1953 to date as percentages of potential output. This series is shown at the top of Figure 1, from which a clear impression may be gleaned of cyclical fluctuations during this period. The main peaks stand out as 1955, 1960 and 1964, and the troughs as 1958 and 1962. It should be borne in mind that output is plotted on the figure over different time intervals: annually up to 1958, fourth quarter for 1959–67, and second half-year thereafter. This is simply to facilitate comparison with the forecasts.

[15] W. A. H. Godley and J. R. Shepherd, 'Long-term Growth and Short-term Policy', *National Institute Economic Review*, August 1964, pp. 26–38.

Just as it is possible to chart actual GDP in relation to potential it is also possible to plot what may be called 'planned GDP' on a similar basis. Planned GDP is the forecast level of GDP at Budget time after allowance has been made for the effects of the Budget itself. As such it clearly represents a level of output which the government is prepared to accept, and is therefore tantamount to a short-term plan.[16] Planned output is shown on Figure 1 as a percentage of potential output.

The unmistakable impression to emerge from Figure 1 is that fluctuations in planned GDP, relative to productive potential, have been remarkably similar, as regards both timing and amplitude, to those of actual GDP. There are three planned recoveries: one fairly moderate between 1953 and 1955; another between 1959 and 1960 which tops out somewhat lower than the 1955 peak; and a third planned upturn in 1964. Two of these upturns are followed by substantial declines in planned output: from 1955 to 1959 and from 1964 to 1971. It is interesting to note, in view of what has been said already about the 1959–63 period, that the planned decline after 1960 was mild by comparison with the other two recessions. The main features of these planned fluctuations in activity, and their comparison with actual fluctuations, are set out in the table below:

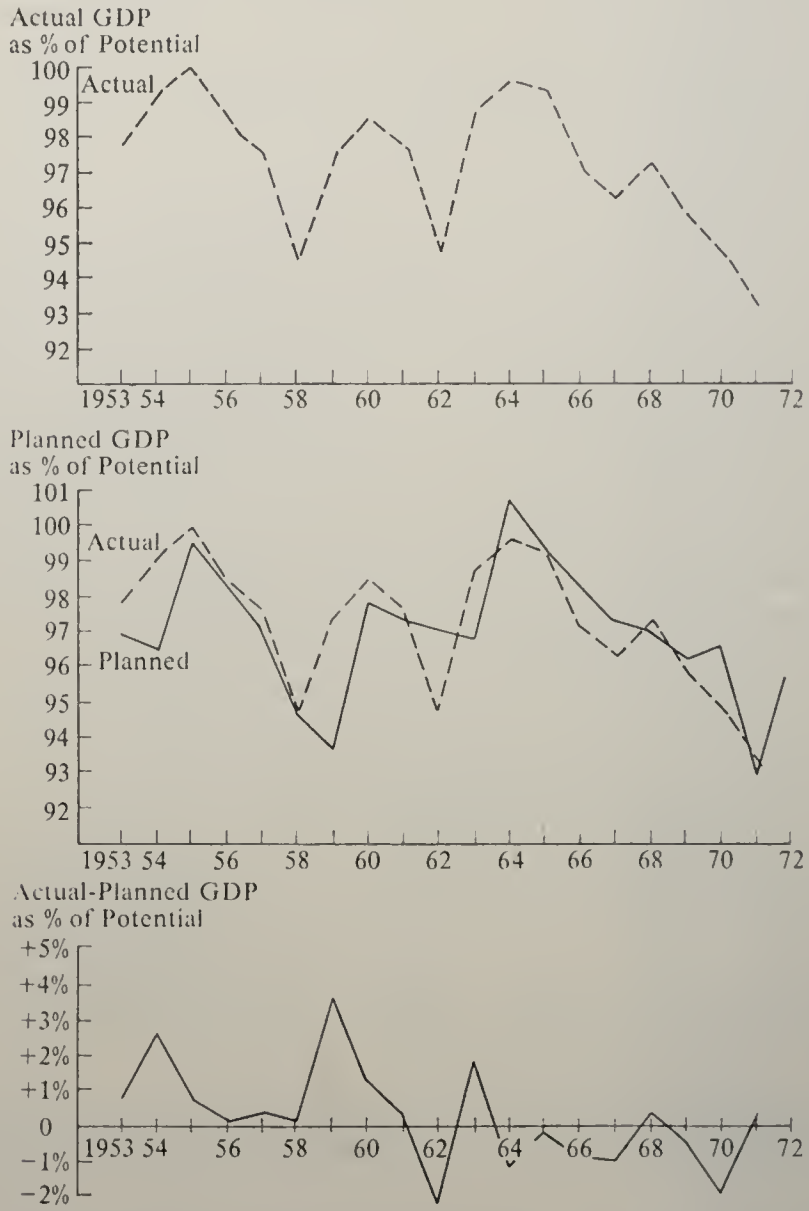
Fluctuations in the Planned and Actual Use of Potential Output 1953–1971
(percentages of potential)

	Planned	Actual
1953–55	2·4	2·3
1955–59	−5·6	−5·3 (1955–58)
1959–60	4·1	3·7 (1958–60)
1960–63	−1·0	−3·6 (1960–62)
1963–64	4·0	4·8 (1962–64)
1964–71	−7·8	−6·3

These figures should make it clear that fluctuations in the economy since 1953 have been more often planned than accidental. There is

[16] Cf. Sir Alec Cairncross: 'The forecasts of GNP and the balance of payments, once they are accepted and provided no fresh action seems called for, are tantamount to plans and can be regarded as embodying Government policy' in his Presidential Address to Section F of the British Association meeting at Exeter, September 1969; see Cairncross (ed.) *The Managed Economy*, Oxford, Blackwell, 1970, p. 17.

Figure 1
Actual and Planned GDP as percentages of potential output, UK, 1953–1971 (for source: see tables)



little doubt, for example, that the two more pronounced downturns of 1955–58 and 1964–71 were intended to take place, and that this was because governmental priorities were shifting away from full employment to other objectives. Equally it seems fairly clear that the

recoveries of 1953–55 and 1962–64 were deliberate, although in the latter case the recovery went faster in some stages than the government had intended. It seems that the main exceptions to the rule of planned Stop-Go were the alleged election boom of 1959 and the downturn of 1961–62, and for these mistakes it is the economic forecasts which must take the main share of the blame.

It is tempting to derive the conclusion that the business cycle was in some sense 'caused' by government policy. This statement is true, however, only in the limited sense that governments, for most of the time, permitted cycles to occur and did little to avert them. It would not be fair in view of what is known about the magnitudes of tax changes and their effects to assert that governments caused the cycle in the more active sense of inducing fluctuations which would not otherwise have occurred. For, generally speaking, the magnitude of cyclical changes in the use of potential output has been too large to have been explained by the comparatively mild effects of variations in fiscal instruments. The nearest thing to a fiscally induced business downturn was the decline after 1964, when the effects of fiscal changes could have accounted for a high proportion of the decline in GDP relative to potential.[17] But in the years from 1953 to 1964, it is difficult to see how fiscal effects could have made a substantial contribution to economic fluctuations.

Conclusion

The main conclusion which this paper comes to is that economic instability, or Stop-Go, has been a predominantly planned phenomenon and that technical errors due to poor forecasts have played a relatively minor role. Statistical exercises which show that fiscal policies have been destabilising, or not positively stabilising, must be seen in this light. When it is found, for example, that the time path of the economy over a period such as 1955–65 was hardly more stable with fiscal changes than it would have been without them, the conclusion to be drawn is that this is because instability has been more often deliberate than accidental. It will not do to infer that the lack of stabilising effectiveness reflects technical failures on the part of

[17] The estimates by Artis *op. cit.* put the cumulative effects of fiscal changes introduced between the last quarter of 1964 and the second quarter of 1970 at 4·2 per cent. The estimates in this paper suggest a percentage fall in output relative to potential of about the same amount.

Keynesian economics. Whilst technical errors have occurred from time to time they have not been sufficiently frequent or serious as to warrant a withdrawal of confidence in Keynesian methods of demand control. The evidence that has been presented suggests that these methods can be relied upon to bring the economy, for most of the time, to within striking distance of the target level of national output. It follows that there is no case for abandoning such methods in favour of so-called 'automatic stabilisers' or other variants of *laissez-faire*. The fact that target levels of output have so often been constrained by objectives other than a high and stable level of employment reflects, for the most part, on our political choices. When high employment has been sacrificed to the balance of payments the political choice has gone in favour of the overseas holders of sterling. When the sacrifice has been made for price stability the choice has favoured traditional freedoms in the setting of wages and prices. But these political choices have been made by governments, and it is these, not Keynesian methods of demand control, which must bear most of the blame for the stagnation of recent years and the stop-go which preceded it.

Appendix

Table A.1
Unemployment and Changes in Forecast and Actual GDP

	Unemployment at time of Budget (a)	Percentage Changes in GDP					
		(i) Planned (Forecast)	(ii) Actual	(iii) Potential	(iv) Actual-Planned	(v) Dow/Cohen (alternative forecasts)	(vi) NIER
Year-on-year							
1952–53	1·6	3·1	4·0	2·6	·9		
1953–54	1·4	1·3	4·1	2·6	2·8		
1954–55	1·0	2·9	3·7	2·8	·8		
1955–56	1·0	1·1	1·2	2·8	·1		
1956–57	1·4	1·3	1·7	2·8	·4		
1957–58	1·5	−0·4	−0·2	2·9	·2		
4th Qtr-on-4th Qtr							
1958–59	2·1	2·8	6·8	2·8	4·0	2·6	2·3
1959–60	1·6	3·1	3·9	2·7	·8	5·9	2·2
1960–61	1·3	1·8	2·2	2·7	·4	3·0	2·2
1961–62	1·5	3·9	1·3	3·3	−2·6	1·7	3·4
1962–63	2·4	4·6	6·6	3·4	2·0	3·1	4·6
1963–64	1·7	5·4	4·2	3·2	−1·2	5·8	5·4
1964–65	1·3	2·7	2·6	3·0	−0·1	3·7	3·0
1965–66	1·2	2·0	0·8	3·0	−1·2	1·3	1·9
1966–67	2·0	3·1	2·1	3·0	−1·0	0·8	1·9
2nd Half-on-2nd Half							
1967–68	2·4	3·6	4·1	3·0	5		
1968–69	2·3	1·9	1·6	3·0	·3		
1969–70	2·5	3·6	1·8	3·0	−1·8		
1970–71	2·8	1·1	1·4	3·0	·3		
1971–72	3·8	5·5	n.a.	3·0	n.a.		

NOTES TO TABLE A.1

(a) Percentage wholly unemployed (excluding school-leavers), seas. adj., in G.B., at 1st Qtr of 2nd year indicated.
Sources: Department of Employment, *British Labour Statistics Abstract 1866-1968*, Department of Employment *Gazette*.

(i) Forecast changes including allowance for Budget effects.
Sources: 1952/53 to 1957/58, J. C. R. Dow, *The Management of the British Economy 1945-60*, p. 136 (year-on-year changes); 1967/68 to 1971/72 (2nd

half-on-2nd half) *Financial Statement and Budget Reports* for 1969–70 (211), 1970–71 (214), 1971–72 (330), 1972–73 (189). For 1959–67 forecasts see additional notes below.

(ii) From Table A.2, col. (1).

(iii) From Table A.2, col. (2).

(iv) Col. (ii) minus Col. (iii).

(v) Dow, op. cit., year-on-year changes for 1958/59 and 1959/60; C. D. Cohen, *British Economic Policy 1960-1969*, p. 14, year-on-year changes from 1960/61 to 1966/67 (6·1 per cent for 1959/60).

(vi) National Institute Economic Reviews, January 1961, May 1961, and February 1962–67, 4th Qtr-on-4th Qtr changes. Adjustments for Budget changes as in Kennedy, 'How Well Does the National Institute Forecast?', *National Institute Economic Review*, November 1969.

Additional notes on official forecasts 1959–67

These forecasts are the author's own estimates, adjusted, where appropriate, for the effects of Budget changes as calculated in Kennedy *op. cit.* For individual years the main indications are:

1959. The main indications for this year have been given in the text. I have assumed that they imply changes, pre-budget, in consumption of 2·5 per cent, fixed investment 2·7 per cent, government expenditure nil, stockbuilding nil, exports 2 per cent. This makes the rise in total final expenditure 1·4 per cent.

1960. The Budget Speech (H. C. Deb. 4th April 1960, 44) states that 'demand will continue to increase'; that the rate of increase will be less than it was in 1959 (which at the time was estimated to have been 5 per cent); and that it would be possible to grow faster than 'we could year in and year out'. Thus the increase in GDP has to lie between 3 and 5 per cent on the pre-Budget basis.

1961. The Budget Speech (H. C. Deb. 17th April 1961, 799) mentions increases in consumption, government spending and investment of 3½, 3 and 7 per cent respectively. It says that 'even allowing for a probable reduction in the rate of stockbuilding there will be strong expansionary forces working on home demand'. I have assumed the fall in stockbuilding to be £140 million and an export rise of 3½ per cent. This gives increases in total final expenditure and GDP of 2·2 per cent.

1962. The main indications from the Economic Survey and the Budget Speech are stated in the text above. The Budget Speech makes it quite clear where the main danger was thought to lie: 'the cumulative effects of all the factors I have mentioned could result in too great a call on our resources . . . .'. (H. C. Deb. 9th April 1962, 965)

1963. The Budget Speech (H. C. Deb. 3rd April 1963, 470) states that the 'outlook for demand as a whole suggests that there will be a rise in national output this year, but it would be unlikely to reach 4 per cent over the whole year'. I have taken this to mean a pre-Budget forecast rise of 3·7 per cent.

1964. 'The outlook for demand as a whole is continued expansion at a high rate which, although somewhat lower than in recent months, when it has been about 6 per cent, would still be very high and substantially greater than 4 per cent'. (Budget Speech, H.C. Deb. 14th April 1964, 259). I assume this to mean a forecast rise of 5·6 per cent before allowance for the Budget changes.

1965 and 1966. The Budget statements are extremely vague in both these years, and the only real justification for the figures given is that they are close to the National Institute's forecasts.

1967. The post-Budget figure comes directly from the statement that 'total output will rise by close to 3 per cent between the end of 1966 and the end of 1967'. (Budget Speech, H. C. Deb. 11th April 1967, 993).

Table A.2

Actual and Planned GDP, 1953–72

	GDP (average estimate 1963=100)	Potential Output	Planned GDP	Percentages of Potential Output		
				(i) Actual GDP	(ii) Planned GDP	(iii) Discrepancy (Actual-planned)
Calendar year						
1953	76·2	78·0	75·6	97·7	96·9	·8
1954	79·3	80·0	77·2	99·1	96·5	2·6
1955	82·2	82·2	81·2	100·0	99·3	·7
1956	83·2	84·5	83·1	98·5	98·3	·2
1957	84·6	86·7	84·3	97·6	97·2	·4
1958	84·4	89·1	84·3	94·7	94·6	·1
4th Qtr.						
1958	84·3	—	—	—	—	—
1959	90·0	92·4	86·7	97·4	93·7	3·7
1960	93·5	94·9	92·8	98·4	97·8	1·3
1961	95·4	97·7	95·2	97·7	97·4	·3
1962	96·6	101·9	99·1	94·8	97·0	−2·2
1963	103·0	104·4	101·1	98·7	96·8	1·9
1964	107·3	107·7	108·6	99·6	100·8	−1·2
1965	110·1	110·9	110·2	99·3	99·4	−0·1
1966	111·0	114·2	112·3	97·2	98·3	−0·9
1967	113·3	117·6	114·4	96·3	97·3	−1·0
2nd Half						
1967	113·0	—	—	—	—	—
1968	117·6	120·9	117·1	97·3	96·9	·4
1969	119·45	124·5	119·8	95·9	96·2	−0·3
1970	121·55	128·2	123·8	94·8	96·6	−1·8
1971	123·3	132·1	122·9	93·3	93·0	·3
1972	n.a.	136·0	130·1	n.a.	95·7	n.a.

NOTES TO TABLE A.2

1. Average estimate of GDP, seas. adj. *Economic Trends*, April 1972, October 1969; National Income *Blue Book*, 1971.
2. For period up to 1964: W. A. H. Godley and J. R. Shepherd, 'Long-term Growth and Short-term Policy', *National Institute Economic Review*, August 1964, pp. 30–1; for 1964–72 the assumed growth rate is 3·0 per cent per annum.
3. Planned GDP = actual GDP for previous period plus forecast change including allowance for Budget effects. For forecasts see Table A.1 col (i).

7

Pensions, Inflation and Growth

Thomas Wilson*†

ONE OF THE worst evils of inflation is the inequity to which it can give rise and the old are generally regarded as the victims who suffer most. 'Inflation', says Frank Blackaby, 'is a method by which the able-bodied rob the aged.'[1] In this paper I shall attempt to look at the evidence for Britain and a number of European countries: West Germany, France, Belgium, the Netherlands, Italy and Sweden. This will be my first objective. My second will be to consider a different proposition, the proposition that pensioners should be given a share in economic growth. Again we shall look at the evidence and then go on to a more analytical discussion of some of the issues for policy. We shall find that this 'sharing in growth' may be interpreted in different ways and is likely to raise some basic questions about the objectives of pension schemes. In the main our concern will be with official pension schemes and these are nearly always on a pay-as-you-go unfunded basis. We shall be obliged, however, to pay some attention to funded schemes as well. We shall have to do so for analytical reasons in considering some of the statements made about redistribution between generations. We must also consider the implication of the Government's proposal that second-tier complementary pensions in this country, whether official or private, should be on a funded basis.

May we begin by asking how pensions have been affected by rising prices in Britain? We shall see that the answer depends partly upon the length of time considered. The first chart shows that over the

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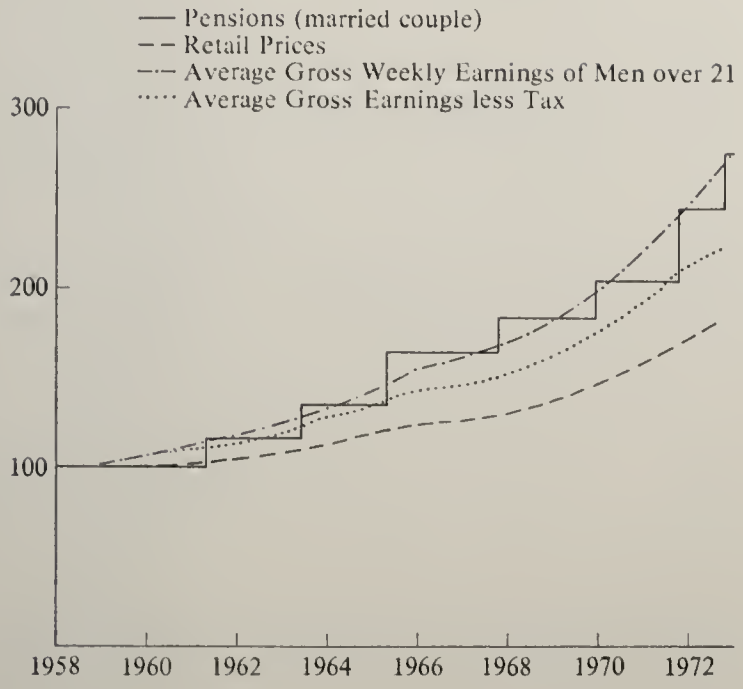
[1] National Institute Economic Review, November 1971, p. 38.

Chart 1
United Kingdom

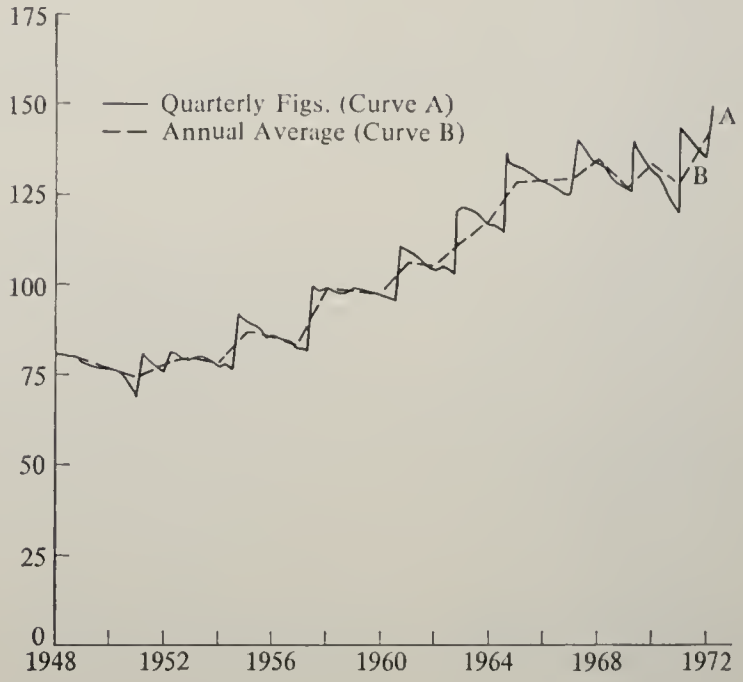


long period of years from 1958 to 1972 the official statutory pension increased by substantially more than would have been required to offset the rise in the cost of living.[2] Over the whole period real pensions rose by over four-fifths. In the European countries with which we are concerned pensions have also been protected over the trend against rising prices, and real pensions have thus increased.

The pensioner has not therefore been a victim of inflation in the long run but it is also true that, in the short run, he has suffered from delays in the adjustment of pensions. These changes used to be made irregularly with delays that were at one time as long as three years and even more; but latterly changes have been made every second year, and the knowledge that this would be done has had the further

[2] Indices of retail prices have been used throughout for the comparative international calculations. For Britain the special pensioner index rose a little more than the general index. The special index starts in January 1962. From that date until the last quarter of 1972, this index, excluding housing, rose by 70·3 per cent. The general index, including housing, rose by 69·4 per cent and, with housing excluded, by 65·5 per cent.

Chart 2
U.K.: Real Pensions of Married Couples (Jan. 1958 = 100)



advantage of reducing uncertainty. Both the Crossman plan and the original Joseph plan envisaged that two years would continue to be the right period; but with inflation proceeding on the scale we have experienced in the early seventies, this was clearly not frequently enough to prevent quite serious hardship between the reviews even if, on trend, real pensions were rising. What has happened can be seen more clearly on the second chart. Curve A gives the value of real pensions quarter by quarter and the sag in purchasing power between the changes can be observed. Curve B is the annual average of the quarterly figures. When changes have taken place, the rise has usually been big enough to do more than offset the effect of the rise in prices since the last review and the trend in real pensions has thus been upwards. But it is also apparent that the situation changed somewhat in 1965 and it was to this that Blackaby specifically referred in his article.[3] The increases for some years did little more

[3] It may seem surprising that this flattening out became apparent when a Labour Government was in power but, as it happened, these were difficult years for the economy as a whole.

than make good the ground previously lost, although the upward movement became more marked again in 1972. With inflation proceeding at its recent pace, two years is clearly too long as Sir Keith Joseph recognised when he announced last March that changes would be made annually as in France and Germany. Pensions in Britain are therefore to be altered as frequently as most negotiated wage rates. This is clearly a marked improvement but it is necessary to recall that if new pension levels are determined about six months before they are paid,[4] it is therefore necessary to forecast prices eighteen months ahead. With the best will in the world, mistakes may be made when the pace of inflation is changing. Fortunately the large increase in pensions of over 12 per cent made in the autumn (of 1972) should raise pensions by about 4½ per cent in real terms above the previous peak; but the gain could be eaten away over the succeeding twelve months if prices went on rising steeply.

Should we, then, contemplate a different approach such as that followed by a number of European countries? Thus in Belgium and Italy pensions are raised when prices go up by 2 per cent; in Sweden when prices go up by 3 per cent. Frequent changes may cause administrative difficulties and these changes can be very frequent as the Dutch found in 1971 when pensions which were closely linked to wages had to be raised four times. Dutch pensions are now being reviewed twice every year. It is true that France relies on annual reviews and this is also the case in West Germany. Moreover, the German pensions are linked to a lagged average of wages and the pensioner could therefore become the victim of accelerating inflation. In fact he has been reasonably protected because growth has been rapid and inflation has been less marked in that country.

Presumably there can be no serious dispute about the need to protect the purchasing power of pensions, but there may have been some reluctance in the past, and may even be some reluctance today, to make rapid automatic changes. For the rise in pensions may then add to the pressure of demand and costs on prices and thus hamper official efforts to bring inflation under control. This is a valid point, but is it a decisive one? Presumably there would be a good deal of support for the view that the standard of living of those with low incomes should not be used as a partial stabiliser and the pensioner, for his part, should therefore be protected as fully as this can reasonably be done given the administrative difficulties. For my part I am

[4] Perhaps this prior six months period could be shortened, as in the Netherlands.

not competent to assess these difficulties but it seems reasonable enough to forecast that if inflation were to continue at a high rate, we might find that even annual reviews were too infrequent and might be obliged to adopt a threshold formula or to have more frequent reviews.[5]

Different issues are raised by the proposition that pensioners should not merely be protected against rising prices but should have a share in the growth of the economy. This is clearly a loose expression and an ambiguous one. Should the rise in pensions be in proportion to an index of growth, or be more, or less? What index of growth is to be chosen? Is it implied that *total* expenditure on pensions should rise proportionately with increases in gross national income? If so, this condition has been met over the trend and, indeed, more than met, in Britain where expenditure on basic statutory pensions has gone up from 2¼ per cent of national income in 1949 to over 4 per cent in 1971. It may be, however, that some *per capita* index of 'growth' is what is implied. For example, it may be held that the average mature pension should rise in line with output a head. Or should it rise in line with consumption a head? Or with average income from employment? Or with average wages? Various interpretations are clearly possible; but it is convenient to begin with the relationship between pensions and wages partly because, if international comparisons are being made, it is this relationship that is embodied in the legislation of a number of countries.

The figures for Britain show that, on trend, pensions have risen roughly in line with the average industrial earnings before tax (Chart 1). If shorter working hours should be reflected in a more broadly defined index of growth, then the relative position of pensions will appear less favourable. These figures, however, are before the deduction of direct taxation including the employee's social security. Pensions, in fact, have gone up rather more than wages after tax which are more affected by fiscal drag. Thus a pensioner with a dependent wife received about 34 per cent of the net income of a wage earner with a dependent wife in 1948; by the mid-fifties this had dropped to about 30 per cent; in October 1972 it was about 40 per cent. We may conclude that, in broad terms, the pensioner has, in

[5] It is true that pensioners can always claim supplementary benefit and, subject to the means test, can thus have their housing costs financed. This can clearly help not only in the long-term but between reviews. The great problem is, of course, that pensioners do not always claim their rights.

fact, had a share in growth rather more than proportionate to that of the wage-earner over the trend when allowance is made both for tax and for hours of work. It may be wise to stress, at this point, that what we are comparing are the *changes* in these payments over time. To say that pensioners have shared in growth is not to express any view about the *adequacy* of these pensions. It is the slope of the curves, not their height, that we are considering. This distinction is perhaps illustrated most clearly by the chart for the Netherlands (see p. 97). It will be seen that pensions and wages moved roughly in parallel until 1965 when it was decided to do more for the elderly. The pension curve then moved sharply upwards and thereafter resumed a course roughly parallel to that of wages. That is to say there may be structural changes in pensions apart from the increases resulting from the increases resulting from dynamising.[6]

Membership of the EEC has not so far resulted in much harmonisation of the social security arrangements. There are differences in the pension schemes in different countries and, even within most countries, there is a variety of plans. Thus Holland and Germany have much more unified systems than France and Italy. Harmonisation of the many different aspects of pension plans, therefore, lies well in the future if, indeed, it is to be regarded as an objective at all. One of the tendencies towards similarity already apparent has, however, been the growing practice of tying pensions explicitly to movements in wages or salaries, not just to those in prices. This has been so in Germany, where a lagged formula has been used since 1959. It is also the practice in France, and in the Netherlands, subject to decree. In Belgium, as in Britain, there is no explicit commitment but in practice pensions are related to earnings. In Italy the link is with prices but there is growing pressure for a link with wages. Oddly enough it is Sweden that stands apart with the official pensions indexed, both in principle and in practice, relatively to prices, not to wages.[7] The course of pensions relatively to gross wages and prices in these countries is shown in Charts 3—10.

[6] A structural change of this kind is contemplated in the British Green Paper, *Proposals for a Tax Credit System.* Cmnd. 5116, para. 107, where it is proposed that benefits would rise about 12½ per cent if the new tax system comes into force. It is not clear whether this increase would be a net increase in addition to changes resulting from dynamising.

[7] It is also true that in Sweden, the contributions by employers and employees are on a proportionate basis. It may, therefore, be asked whether the Swedish fund is not in surplus with a growing unspent fund. The answer is that the Exchequer contribution is large in Sweden but has fallen from 71 per cent in 1953 to 57 per cent in 1970.

Chart 3
Belgium: Manual Workers (Married Couples)

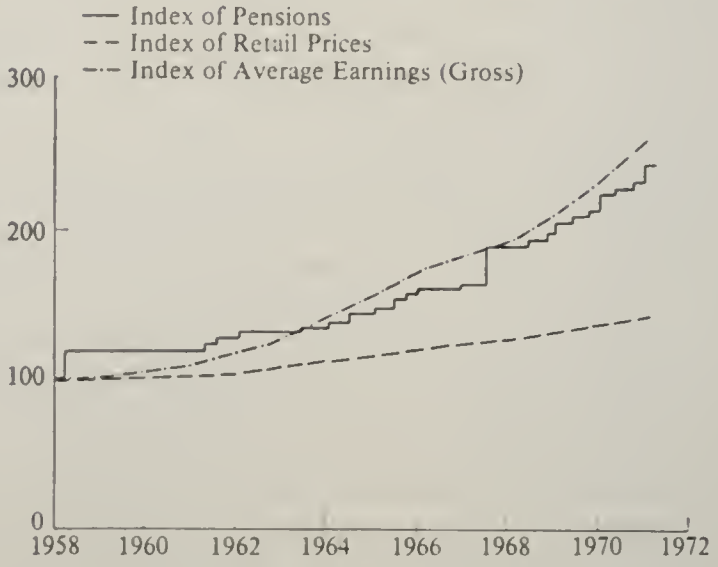


Chart 4
Belgium: White Collar Workers (Married Couples)

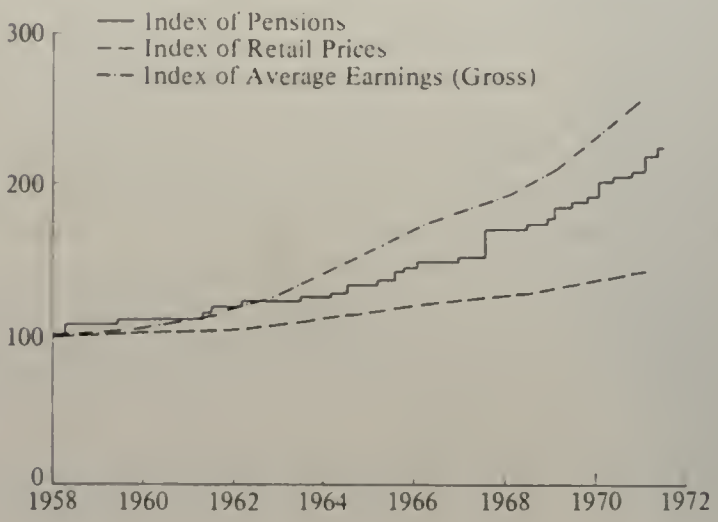


Chart 5
France: General Scheme

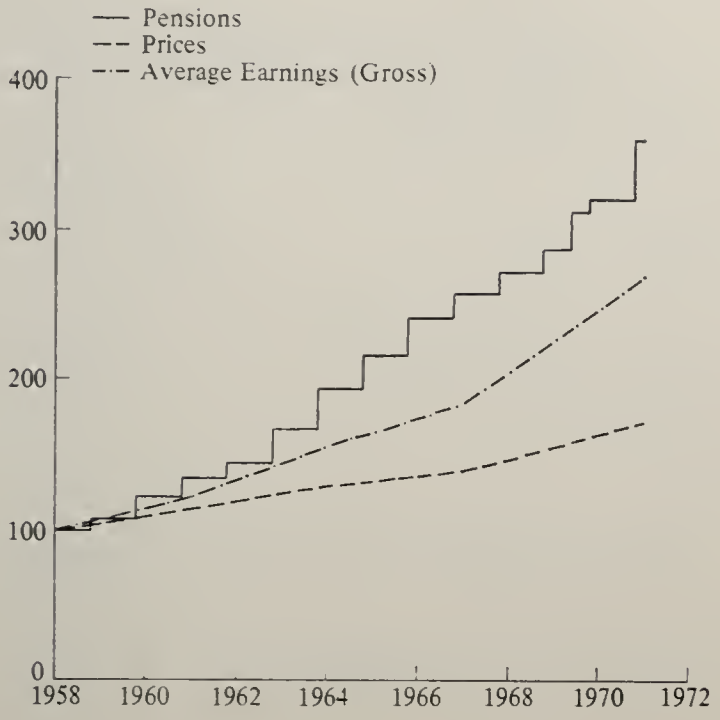


Chart 6
France: Agriculture

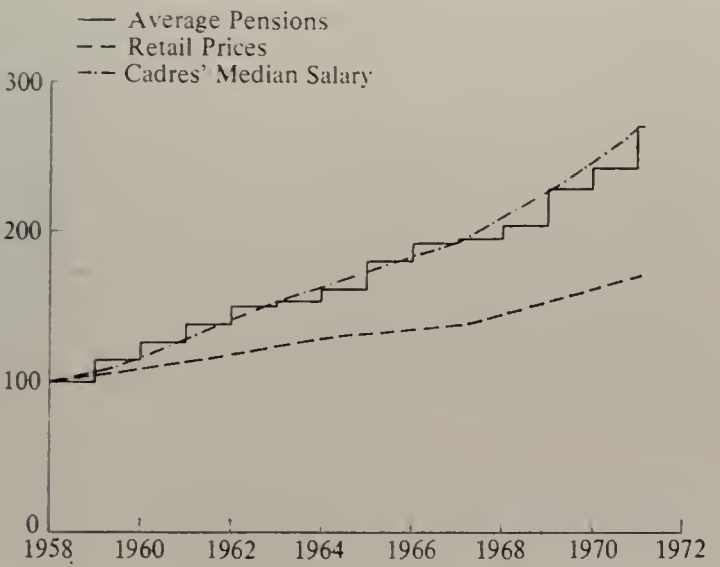


Chart 7
Germany

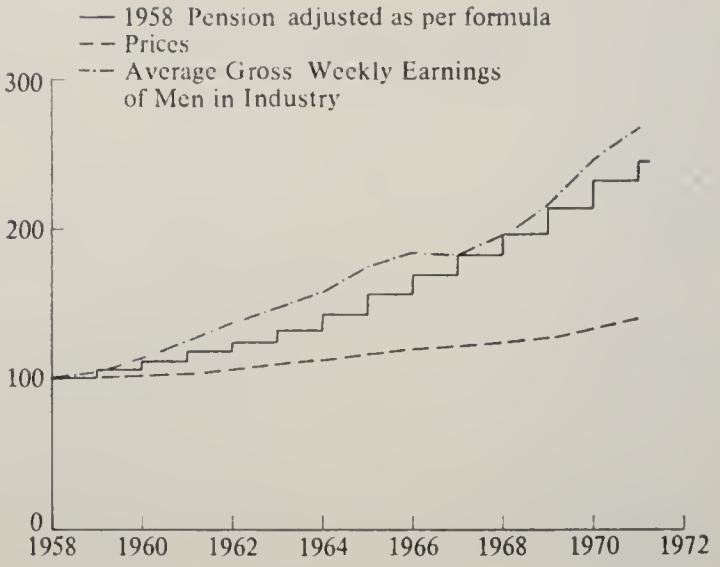


Chart 8
Italy: General Scheme

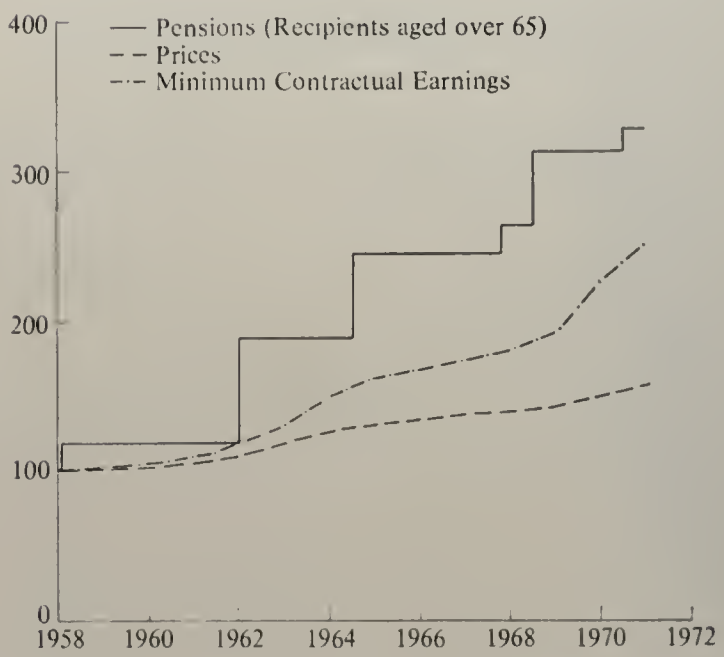


Chart 9
Netherlands (Married Couples)

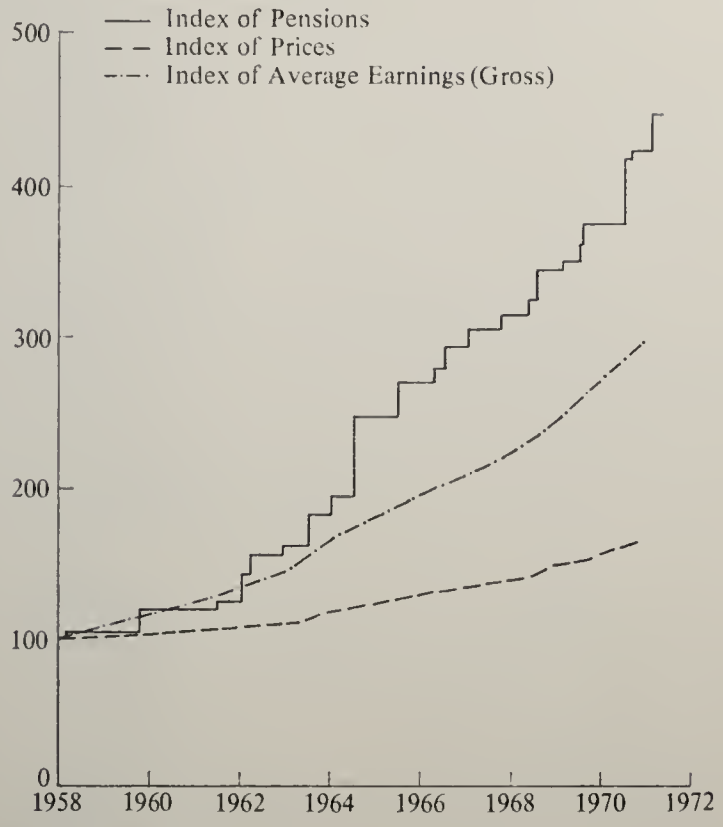
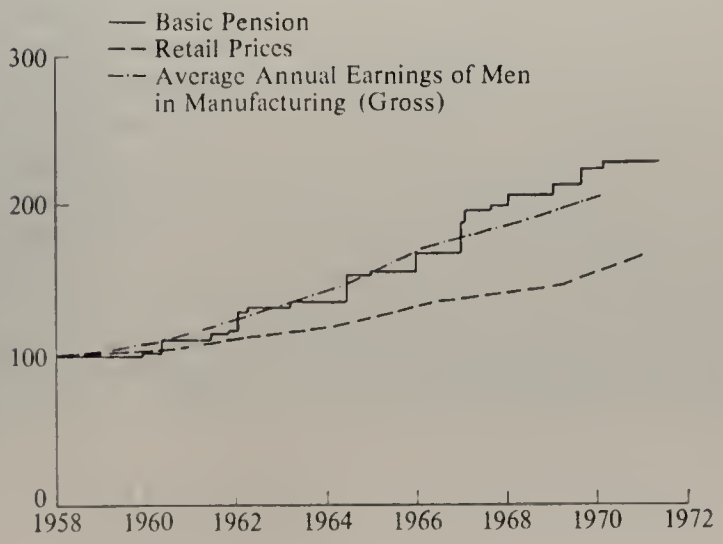


Chart 10
Sweden (Married Couples)



In their respective plans,[8] both Mr. Crossman and Sir Keith Joseph expressed the hope that the pensioner would share in future in the growth of the economy but their definite commitment did not go beyond a link with prices. In fact, for the past twenty years, pensions have been linked to wages, at least over the trend. This is a case where Government has been more modest in its promises than in its achievements—and that is not the invariable practice of politicians. This linkage is the more likely to continue because the method of levying contributions is to be changed in the future. For the Joseph plan, like the Crossman plan, provides for graduated contributions in place of flat-rate contributions, and the payment from the Exchequer is to be held constant at 15 per cent of the total. Does this not mean that the *total* of amount available for pensions will rise automatically in proportion to the *total* rising incomes from work? Apart from any complications arising from the operation of maxima and minima, this must clearly be so. It does not follow, however, that the revenue thus available will allow the individual pension to be raised at just the same rate as average income from work. This would be so only with an unchanged demographic structure, an unchanged proportion of each age group at work, an unchanged pattern in the maturity of claims, and no significant relative change in the other claims on social insurance revenue.

In short we have come again to one of the ambiguities surrounding the proposition that pensions should share in growth. In particular, does this refer to *total* expenditure on pensions as a proportion of *total* income from employment, or to the relationship of the *average* pension to the *average* income from work? This is not merely an academic issue as can be seen from the experience of some European countries where changes in pensions have been determined in two ways: first, on the revenue side, by contributions that are proportionate to income and, secondly, on the expenditure side, by formulae relating pensions to a wages index. Increases in the number of old people relatively to those at work and increases in the average maturity of pension claims have meant that the revenue available from the graduated contributions levied at constant rates would have been inadequate. France and Germany afford examples. Reserve

[8] *National Superannuation and Social Insurance*, Cmnd. 3883, January. 1969; *Social Insurance*, Cmnd. 4124, July 1969; *National Superannuation*, Cmnd 4195, November 1969 (all HMSO). *Strategy for Pensions*, Cmnd. 4755, September 1971 (HMSO).

funds can be run down but these are usually small in unfunded schemes. Another way out would be to provide an increased Exchequer contribution but this has usually remained constant—at zero. A second alternative would be so to alter the formulae that pensions rose more slowly than average wages. The third alternative, and the one usually adopted hitherto, has been to raise contributions. This issue will remain important in both France and Germany for some years to come and it is this that has given rise to anxious discussion of the pensions problem. For the average member of the occupied population may have to contribute amounts that will rise more rapidly than average income. We must bear in mind that, notwithstanding the operation of prescribed minima, the low wage earner may be carrying a heavy burden where contributions are proportionate, not progressive. The Italians, for their part, would face a formidable problem if they were to link pensions to wages, not just to prices.[9] In Belgium and Holland, demographic factors are unfavourable and the rising proportion of mature pensions may cause a little trouble.

In Britain the number of elderly people is expected to rise from 26·8 per cent of the working population in 1971 to 28·6 per cent in 1975. One can appreciate that Governments are cautious about accepting future commitments but an undertaking to raise the flat rate pension in line with average net incomes from work would not make a great deal of difference to the pensions bill. The new pension scheme will come into operation in 1975 and demographic trends will soon become favourable thereafter.

So much by way of a preliminary glance at the figures. Let us now turn to some of the policy issues. In doing so it may be convenient to begin by observing that the raising of pensions in line with incomes from work appears to be more controversial than their indexing relatively to prices. For example, three American economists—Pechman, Aaron and Taussig—maintain that what matters is the relationship between a pension when it is newly granted and the pensioner's income before retirement for this will have determined his style of life.[10] His subsequent standard of living will be adequately

[9] The Italians have adopted a very ambitious pension plan which provides for the replacement of 80 per cent of the earnings of the years recently preceding retirement. The maturing of these claims together with demographic changes will impose a formidable burden which would be still heavier if pensions in payment were to be linked to wages.

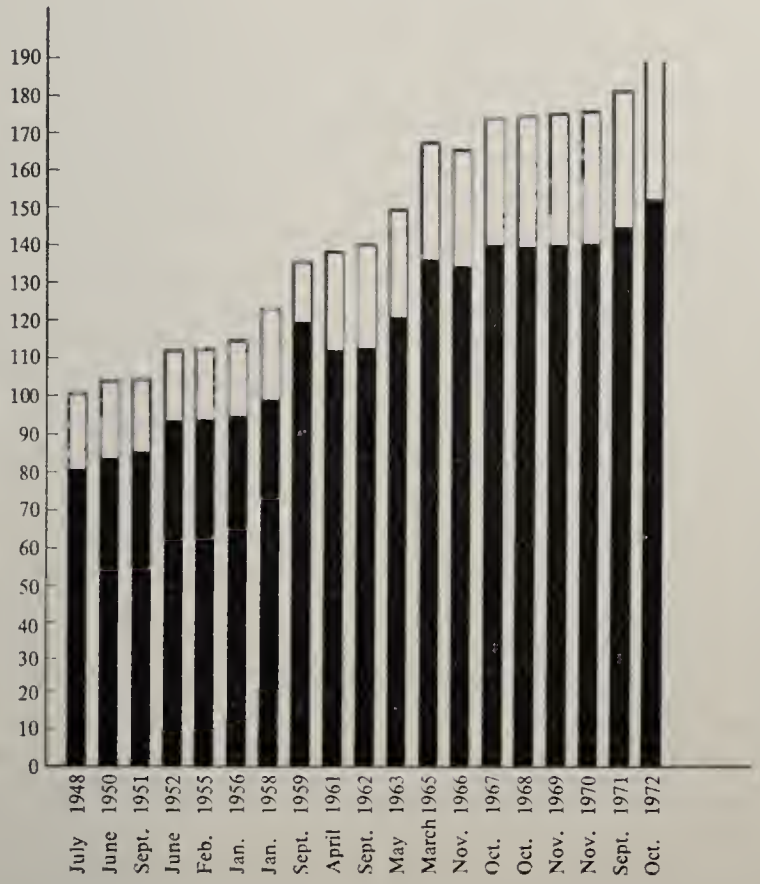
[10] *Social Security, Perspectives for Reform*, Brookings Institution, Washington, 1968, pp. 102–3.

protected by indexing for subsequent changes in prices. This view would be contested by others and is not the view that is generally adopted in practice in Europe, including Britain. Clearly we are forced back at this point to a consideration of basic objectives. Official pensions may seek to meet two objectives: first, to ensure that the aged have at least subsistence incomes, as somehow defined and, secondly, to provide them with incomes which will prevent too sharp a fall in their standards of living after retirement. The two objectives raise somewhat different questions of principle and confusion may be caused when a single scheme is designed to achieve both of them.

Consider, first, the protection against extreme poverty. This could be treated as a tax-transfer arrangement with no specific relationship between the previous contributions an elderly person has made and the assistance he receives. Revenue could be derived from general taxation and payments made after applying a means test. With a progressive tax structure, we should then be coming close to applying the principle: 'From each according to his ability, to each according to his need.' The assistance given might be based, as Beveridge recommended, on some estimate of minimum human needs. Naturally the sums so provided would have to be indexed relatively to prices, but would not rise in real terms. This, of course, is not what has been done. The supplementary benefit level, sometimes called the official 'poverty line', has gone up rather more than wages and is almost nine-tenths higher than it was, in real terms, in 1948 (Chart 11). Thus official policy may be said to regard poverty as, in part, a relative concept. Or we may say that the poverty line is itself a function of growth. We can also say that, even at this low level, some allowance is being made for the replacement of income. Naturally this procedure can give rise to misunderstanding and even misrepresentation. When there is also a statutory pension and when this is held deliberately below the supplementary benefit level, then even rapid growth will not eliminate 'poverty' in the technical sense. It would indeed be possible to eliminate poverty in this special sense of the term by closing the gap between statutory benefits and the supplementary benefit line, but the cost would be £700 million a year.[11] There are some who hold very strongly that this should be done but the official view is that the money could be better spent in other ways. Alternatively the statutory benefits could be raised more

[11] *Strategy for Pensions*, p. 5.

Chart 11
The Official Poverty Level in the U.K. (constant prices)



The black areas are the cash allowances; the white areas are the average assistance with housing. The latter is not available for 1972.

rapidly than the 'poverty line' but the result would then be that the poorer families would receive a smaller share of any *given* sum available for the old than they would do with means-tested assistance, provided—and this is a crucial proviso—they take up all they are entitled to claim under means tests.

We could, however, envisage a system under which all revenue was raised on the ability-to-pay principle by means of progressive taxation and all benefits were based on means tests. At the opposite extreme is the insurance principle which relates individual benefits to

individual contributions. This implies graduated pensions that bear some appropriate relationship to incomes when at work. Attempts can be made to apply one aspect of the insurance principle even in unfunded official schemes. This is what is done in Germany where the sharing out of the revenue available for pensions is determined by the contributions record attributed to each pensioner. The logic is carried to the point of having no minimum and no allowances for spouses.[12] Graduated pensions are usual in Europe, though Holland stands apart with flat-rate pensions based on graduated contributions, similar to those proposed for Britain. These graduated official pensions are, of course, open to attack from both Right and Left. They may be attacked from the Right on the ground that people should be expected to make such provision for themselves and that the state's duty should stop at ensuring a minimum at an official poverty level. It may be attacked from the Left on the ground that the state should not deliberately perpetuate into retirement some of the inequality present in active life. It is fair to add that the force of both objectives is weakened when, as is usually the case there are prescribed maxima in the official schemes.[13] The graduated pensions will not then reflect the full range of inequality before tax and the conflict of interest will lie, not so much between the really rich and the poor, as between the more highly paid workers and those at the bottom of the scale.

In practice some compromise is usually adopted. Although a negative income tax might change attitudes, means tests are not

[12] It is true that there is a maximum for the incomes on which contributions will be assessed and therefore on the benefits which can be claimed. But this is not inconsistent with the insurance principle as a minimum pension would be. In Germany a minimum is provided subject to means tests by the Länder outside the statutory pension scheme.

[13] Thus the maximum income on which contributions for a graduated pension was to be levied was 1½ times the average wage in the Crossman plan. Under the proposed Official Reserve Scheme it is 1½ times the average wage. In France it is 1¼ times the average wage for the régime général; for Germany 1½ times blue-collar and white-collar earnings as combined in a weighted average. In Italy there are *no* ceilings in the various schemes. Reference must also be made to official or semi-official complementary schemes. In the Swedish second-tier scheme which complements the basic flat-rate pension, there is a ceiling which, because it is indexed for prices but not for earnings, had fallen from about 2½ times average earnings to 1⅓ times between 1960 and 1971. In France there are a number of complementary schemes. For UNIRS (salaried workers) the maximum is about 4 times the average wage and for managers (AGIRC) it is about 5 times but more may be added by other topping-up provisions. These French schemes are, however, more comparable with private occupational schemes in Britain.

popular and, for this reason, or from ignorance, some benefits are not fully claimed and serious hardship is the result. Moreover, unless disregards are generous, means-tested assistance can discourage saving. Beveridge, for his part, laid great stress on the principle that there should be benefits that are received as of right without means tests and he pushed his logic to the point of recommending flat-rate benefits in return for flat-rate contributions although these contributions were regressive. This, of course, has been the basis of the arrangements still in force in this country. The Crossman plan recommended a new departure with graduated contributions and graduatedbenefits between a floor and a ceiling. There was also to be a difference in the relationship between contributions and benefits which would permit some vertical redistribution. In a well-known article[14] Professor Atkinson has made some estimates which illustrate the scale of this redistribution. His procedure was to estimate the present value of the prospective pension at the date of retirement and then to calculate the implicit rate of return on contributions made over a full working life, which would be required to obtain a capital sum equal to this present value. The implied rate of return for a married couple with half the average wage was 9·3 per cent but 7 per cent for a couple with two-and-a-half times the average wage. He pointed out that if Mr. Crossman had recommended a combination of graduated contributions with flat-rate pensions, this would have permitted a much larger amount of redistribution and the comparison might then be between 9·3 per cent and 5·2 per cent. It is interesting to note that the Joseph plan will permit, in principle, a larger degree of vertical redistribution.

Let us, however, turn to another aspect of distribution—that of redistribution between the generations within a pensions scheme. Presumably this idea may also be related in some way to the dynamising of pensions. What, in fact, does such redistribution mean and how may it be measured? Again we are forced back to the alternative basic principles of social security. Suppose we adopt the view that the notion of insurance should be completely abandoned in favour of the tax-transfer principle. There are to be no insurance contributions, no hypothecated pensions taxes. Penions are simply to be financed from general revenue with no link between contributions and benefits. The entire amount provided for pensions might then be described as

[14] 'National Superannuation: Redistribution and Value for Money'. *Bulletin of the Oxford University Institute of Economics and Statistics,* 1970, p. 171.

simply a transfer between generations on the rather obvious ground that all real income comes from current output. These pensions might be made to rise in line with rising real income, or by more, or by less. This would be a matter for public decision.

This approach may be compared with the insurance principle by which benefits are deemed to be related to contributions. It may be noted in passing that some such relationship is likely to be required if benefits are to be graduated—even if, on a less superficial view, the link seems dubious when the true incidence of the pensions tax is considered. If, then, such a scheme is in operation, redistribution between generations may be deemed to take place for two reasons: first, the implicit rate of return on a full record of contributions may be greater under an official pay-as-you-go scheme than could be obtained on the market; secondly, some pensioners with an incomplete record of contributions may be blanketed into a new pensions scheme and given pensions higher than these contributions would warrant under the insurance principle.

Let us begin with the first of these cases. An official pension scheme exacts compulsory contributions from the future pensioner. He is obliged to pay an employee's contribution and the employer's contribution will usually be passed forward in the form of higher prices or passed backwards in the form of lower wages.[15] If the cost is passed forward, then some of the burden will be carried by those currently in receipt of social security benefits, although this burden may be removed in due course by the linking of benefits to prices or wages. The incidence of these contributions is a little uncertain as between income classes and, much more, as between individuals. We shall, however, make the extreme simplifying assumption that we are dealing with a person who is obliged in the end to pay both his own contribution and his employer's contribution. It is then open to him to say something like this: 'I am being obliged by law to save. If this were not so I should be free to save a corresponding amount if I wished to do so, and on my savings I could expect interest or dividends. The public authorities who force me to save may pay my savings into an accumulating fund, or may not do so. That is a macro-economic decision which does not alter the fact that I am being obliged to make a forced loan. The question then is whether the official scheme offers me a better rate of return than I would get

[15] The Dutch—wisely in my view—dispense with an employers' payroll tax for pensions and rely upon a proportionate tax on employees.

for myself. If not, please do not claim that there is any transfer between generations in my favour, or that I am receiving a bonus share in growth!'

Of course an observation of this kind makes assumptions about the institutions of the society in which our imaginary spokesman lives and, of course, the comment is made from an individual's point of view. It also goes without saying that there would be acute analytical and statistical difficulties in trying to apply this line of reasoning in an aggregated manner to the whole body of pensioners. Nevertheless this approach helps us to throw some light on the problem. It reminds us that if official pensions are not even adequately dynamised relatively to the cost of living, the pensioner may be receiving a negative real rate of return on his compulsory savings. This, in fact, is what will happen to the graduated pensions in Britain payable under the scheme that is now to end.[16] Apparently it is not so much a question of saving the candle ends as of stealing the candle ends!

Suppose, however, that pensions under a pay-as-you-go scheme are raised strictly in line with earnings. This implies a rate of return on contributions equal to the rate of growth of earnings. The question then, is whether this rate of growth of earnings is greater or less than the rate of return on capital over the period in question. On the face of it, it may seem probable that redistribution in this sense will usually occur under a pay-as-you-go scheme with pensions fully dynamised relatively to earnings. For funded schemes are often strongly criticised on the ground that the pensions provided are quite inadequately dynamised. This is a question of fact about which we have unfortunately too little information. But it is unnecessary to stress that if the funds have to be invested in fixed-interest securities, then the real return may well be modest enough and may even be negative. Admittedly, this is not inevitable for even fixed yields may begin to anticipate inflation as has been obvious in the bond market in recent years. But the fixed yields on investments made over an extended period may, of course, fail to anticipate the pace of an inflation that is accelerating, and when pension funds are restricted by law to such investments, the beneficiaries will suffer. A good many European funded schemes have been destroyed by inflation in the past and were replaced by pay-as-you-go arrangements. Fortunately British pension funds are not restricted to fixed-interest

[16] *Strategy for Pensions*, para. 4, p. 37.

securities and the returns on equity investments and on real property can be expected, over a period, to provide a positive rate of return. Even the FT index would normally have passed this test. Whether the return will be as high as the rate of growth of wages will naturally depend upon what is happening to distribution between the factors of production throughout the economy and, of course, to the tax structure.

The pessimism about funded pensions is not unfounded but it may be exaggerated in so far as it is based not so much on empirical studies of the rate of return on accumulated contributions up to the point of retirement as on information about the modest extent to which funded pensions already in payment appear to be dynamised. This distinction is important. Sometimes these pensions in payment do not change at all, and even the average increases of 2 to 3 per cent a year in occupational pensions recorded by the Government Actuary in his report for 1972 would be too small to offset inflation. We must, however, be careful about interpreting this evidence. Suppose that, on the point of retirement, the pensioner were to be given a lump sum, as under the universities system. It would then be open to him to buy a fixed annuity or a variable annuity. Variable annuities are available but, in practice, these are not popular. This may, perhaps, reflect some shortsightedness on the part of investors or even, in some cases, lack of enterprise on the part of insurance companies. There is, however, another explanation. The fixed annuity will decline in real value in an inflationary economy but it will start at a higher level than a variable annuity. If the former is based on fixed-interest yields and the latter on equity yields, then quite a number of years may elapse before the variable annuity catches up with the fixed annuity and still more years will be needed before the investor does better out of the variable annuity.[17] If he has an expectation of life of, say, 14 years, the variable annuity may not seem so very attractive to the retired person. The reverse yield gap reflects all the many forces at work in the market and is, we may assume, substantially larger than it would be if it were to be determined solely by the preferences of elderly people. There has undoubtedly been a great deal of conservatism about the treatment of pensions and the mental adjustment to inflationary conditions is no

[17] For example, dividends on a sum invested in August 1972, would have to grow at an annual rate of about 30 per cent to give the same return over five years as could be obtained immediately by buying consols.

doubt still incomplete. Many retired people suffer accordingly. But it may be the case that, from this particular point of view, a well-run pension fund may not offer such poor bargains as is sometimes supposed. Moreover, if funded schemes prove seriously defective there is a partial solution which a Government committed to funding must, in due course, be forced to consider and that is the introduction of some form of indexed bond.[18] This is clearly relevant to the future of the proposed Official Reserve Scheme. (There is already, in my view, an overwhelming case for indexing small personal savings held in post offices and savings banks, at least up to some prescribed limit.) If an indexed security were to be made available to pension funds, it would be possible for them so to arrange their portfolios as to remove one of their main disadvantages: their inability to *guarantee* that pension rights would be protected against inflation.

As we noted, however, the respective merits of funding and pay-as-you-go need to be assessed with a second question in mind. This is the question of 'blanketing-in' those whose record of contributions is incomplete. The relevance of this question to the new British pension plan is clear. For it is the Government's intention that the new basic pension be supplemented by graduated pensions provided by occupational schemes or by the proposed Official Reserve Scheme. Of course there are many people who already have substantial claims under existing complementary occupational schemes but there are many others with no claims or very small ones. The new arrangement will provide for general coverage with prescribed minima but it will be a long time before these arrangements become fully effective. Thus it will be forty four years before full pensions are paid under the Official Reserve Scheme. Those who enter private schemes at the same time may sometimes do a little better in so far as such schemes are usually run with some margin of flexibility; but the waiting period will still be considerable. The Crossman plan was something of a hybrid but, even so, the waiting period was to be twenty years for full pensions.

[18] Professor Buchanan has proposed that the whole official pension scheme in the USA should be backed by bonds with a rate of return equal to the rate of growth of wages or the rate of return on federal bonds, whichever is higher, with any deficiency made good from general revenue. ('Social Insurance in a Growing Economy: A Proposal for Radical Reform' by James M. Buchanan, *National Tax Journal,* 1968. See, also, 'Comments on "Social Insurance in a Growing Economy . . . ."' by A. R. Prest, *National Tax Journal,* December 1971.)

It is, therefore, natural to ask whether the pay-as-you-go principle accepted long ago for basic pensions, should not also be adopted for the second-tier complementary pensions. Should we, perhaps, imitate the French by setting up several occupational pension federations on an unfunded basis and then go on to arrange, if not for complete 'blanketing in', at least for a move in that direction? At first sight this looks like a very clear case of an intergenerational transfer. The retired would clearly get a bonus,[19] but who would pay? It is natural to ask whether such an arrangement would not impose an additional burden on the working generation responsible for providing the contributions. But are we sure? For this is the situation Professor Samuelson had in mind when he spoke of the 'social insurance paradox'.[20] Suppose that the sums they are being forced to contribute were to be passed over at once to the elderly. The contributors would have to pay no more than they would otherwise have paid into the accumulating fund but the pensioners would benefit immediately. It is true that no fund would then be accumulated for the subsequent benefit of today's contributors; but they in turn could expect to receive pensions under the pay-as-you-go system from a future generation of people at work. To quote from Samuelson: 'Let mankind enter into a Hobbes-Rousseau social contract in which the young are assured of their retirement subsistence if they will today support the aged, such support to be guaranteed by a draft on the yet unborn.'[21] Somewhat similar language is frequently used in France and Germany where the pay-as-you-go pension schemes are said to be based on 'solidarity between the generations'. We can imagine this social contract being made when old-age pensions are being introduced. If, indeed, old-age pensions were to come to an end then the final generation of contributors would suffer; but that is a contingency which need not cause much concern.[22]

[19] Cf. Professor Prest's criticism of the Crossman plan: 'Some Redistributional Aspects of the National Superannuation Fund', *Three Banks Review*, June 1970.
[20] 'An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money', *Journal of Political Economy*, December 1958. pp. 479–80. See also: 'The Social Insurance Paradox' by Henry Aaron, *Canadian Journal of Economics and Political Science*', August 1966;'The Social Insurance Paradox: A Comment' by John O. Blackburn, *Canadian Journal of Economics and Political Science*, August 1967; 'Issues in Future Financing of Social Security' by George A. Bishop in *Old Age Income Assurance*. Joint Economic Committee of the Congress of the United States, Washington, 1967.
[21] Loc. cit., p. 479–80.
[22] Or, as Dr Onorato Castellino has put it: 'Perhaps we might say that the burden is imposed onto the last generation, the one which will be of working age when the pensions scheme is abolished or the end of the century comes!', *Public Finance*, 1971, p. 465n.

It is an enticing argument but unfortunately not an adequate guide for policy. The first difficulty is that those who have contributed to complementary schemes in the past would probably object on grounds of equity if others who have not contributed were to be given the same pension rights immediately as themselves. In reply it might be pointed out that the employers' part of previous contributions, even under private arrangements, has probably fallen in large part on the general public and to this extent there would be no inequity in at least a partial measure of 'blanketing-in'. The second objection which has been raised by Professor Buchanan is that the social contract to which Samuelson refers may be repudiated whereas a fund provides some security.[23] This is not, I think, an altogether convincing argument for if social contracts can be broken, pension funds can be confiscated.[24] Much more serious is the third objection which relates to the effect on savings and investment. This is something that lies outside Professor Samuelson's consumption-loan analysis from which he explicitly excludes durable goods. When this special assumption is removed, it is obvious enough that the choice between funding and pay-as-you-go cannot possibly be made on the basis of this analysis but must take account of wider macro-economic considerations as well. Pensions are, indeed, a transfer payment to be met, in real terms, from current production; but the level of current production itself cannot be taken as given and may be affected by the manner in which pensions are financed. If the same flow of savings is to be provided, then consumption will need to be curtailed in some other way to offset the current spending of the pension tax. It would seem that we may be faced with something of a dilemma if we want, on the one hand, to blanket-in and, on the other, to boost the flow of savings by means of funding. We may note in passing that the Dutch, with somewhat similar plans and objectives, are faced with much the same dilemma. Fortunately dilemmas sometimes look less awkward when quantities are introduced. A certain amount of unfunded blanketing-in would not destroy all the arrangements for funded pensions. We could even contemplate a three tier pensions structure such as the Swedes have devised, with flat-rate official pensions

[23] Loc. cit.

[24] Admittedly, it may be better to rely upon an accumulated fund than upon an annual budget. But some degree of autonomy can be conferred upon schemes which pay benefits from hypothecated taxes and some security can thus be obtained even with pay-as-you-go. This is one of the main practical justifications for preserving the "social insurance" principle.

complemented by partially funded graduated official pensions and further topped-up by occupational pensions. Temporary additions are also made to the basic pension for those with no rights to graduated supplementary pensions, or with claims that are very small. These additions are fairly modest, as might be expected in view of the extra cost. But, in principle, this is one way of dealing with the unevenness of pension rights during an interim period before a funded, or partially funded, scheme has fully matured.

These are complicated issues but mark only the start of the complexities. For we should also need to estimate the *net* effect of various pension arrangements on savings and go on to assess the possible effects of different flows of savings on effective demand, industrial efficiency and so on. It goes without saying that this would call for a formidable exercise in applied economics for any one country and, of course, comparative studies of other countries would also be desirable. It also goes without saying that we are now in the company of growth theory. One may welcome the companionship of growth theory. Or one may respond as did Coleridge's traveller on the lonely road, who

> . . . . having once turned round walks on,
> And turns no more his head;
> Because he knows, a frightful fiend
> Doth close behind him tread.

I have tried to say a little about the effect of growth on pensions but I am not going to try, at the tail end, to discuss any further the effect of pensions on growth.

Appendix

I

Let us consider first the position of the individual pensioner and postpone to the second part a consideration of pensioners as a group. He begins work conveniently on January 1st and retires 46 years later on December 31st. His expectation of life after retirement is 14 years.

C represents the value of his contributions on the date of his retirement;
e stands for his yearly earnings;
k for the percentage contribution rate (by employer and employee combined);
g for the annual rate of growth of his earnings;
r for the annual rate of return on his contributions.

It is assumed for simplicity that the parameters remain constant.

Then:

$$C = ke_1(1+r)^{45} + ke_1(1+g)(1+r)^{44} + \ldots\ldots + ke_1(1+g)^{45}$$

$$= ke_1(1+r)^{45}\left[1 + \frac{1+g}{1+r} + \frac{(1+g)^2}{(1+r)^2} + \ldots\ldots\ldots\ldots + \frac{(1+g)^{45}}{(1+r)^{45}}\right].$$

$$= ke_1(1+r)^{45}\left[\frac{1-\left(\frac{1+g}{1+r}\right)^{46}}{1-\frac{1+g}{1+r}}\right] \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

Let:

V represents the present value of his pension on the date of his retirement;
p is the pension received in his first year;
m stands for the annual rate at which his pension is dynamised;
d is the annual rate of discount used in calculating the present value of his pension.
l_n is the probability of receiving at least n years after retirement.

We shall make the further rather crude assumption that pensions are paid annually at the beginning of the year. For this assumption simplifies the presentation of the argument without seriously affecting the points to be made.

Then:

$$V = l_1 p + l_2 p(1+m)(1+d)^{-1} + \ldots . l_n p(1+m)^{n-1}(1+d)^{-(n-1)}$$

If it could be shown that l_1, l_2, l_3, etc. followed a simple mathematical pattern, the series could be summed. I am informed, however, that this cannot be done.[1] It may, however, be worth while to take the case of an annuity certain as though it were definitely known that the pensioner would live for 14 years.

Then:

$$V = p + p(1+m)(1+d)^{-1} + \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots$$
$$+ p(1+m)^{13}(1+d)^{-13}$$

$$= p\left[\frac{1-\left(\frac{1+m}{1+d}\right)^{14}}{1-\frac{1+m}{1+d}}\right] \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2)$$

[1] I am indebted for this point to Mr. J. C. Cornwall, manager of the Courtaulds pensions fund.

It is assumed for simplicity that g, r, m and d remain constant.

Suppose now that C = V. Initial earnings and the rate of growth of earnings are independent variables but various assumptions may be made about the other items in the equations so that the role of dependent variable may fall to one or other according to the particular assumptions made.

If k, p, m and d are given, then r becomes the dependent variable. It is the rate of return at which contributions must be implicitly deemed to grow to make the accumulated value of contributions equal to the present value of the pension at the date of retirement. (This is, in effect, one of the procedures adopted by Professor Atkinson, loc. cit.)

Or, with all the other items given, k could become the dependent variable. And so on.

But *all* the items in the equations may be assumed to be given. For example, r may be given a value that is believed to correspond roughly to the probable rate of return on the capital of a reasonably well-managed pension fund, and values may be placed on all the other items either because these have been determined by the particular pension scheme (e.g. k, p, m) or because they are believed to be realistic in the light of economic experience. The result may be that C will no longer be equal to V. The pensioner may then be said to be getting more or less than the accumulated value of his contributions. This was the procedure adopted in the paper by Prest (loc. cit.) and in some of the papers analysing the U.S. pensions under OASDA. (See for example, 'Cost-Benefit Ratios under the Federal Old-Age Insurance Program' by Colin D. Campbell, in *Old Age Income Assurance* Joint Economic Committee of Congress, U.S. Government Printing Office, Washington, 1967.)

The analysis is simplified in some discussions by assuming that: $g = r = m$ (e.g. Castellino, loc. cit.) This assumption may sometimes be arbitrary but it may rather reflect what is required by a pay-as-you-go scheme that is entirely self-supporting, accumulates no surpluses or acquires no deficits (apart from small contingency reserves) and is demographically static. It is further assumed (usually without discussion) that d is also equal to g, r and m.

Then:

$$C = 46\,ke_1\,(1+g)^{45} = 46ke_{46} \quad \ldots\ldots (3)$$

$$V = 14p \text{ (with an annuity certain)} \quad \ldots\ldots (4)$$

If the contributions are equal to the value of the pensions, then:

$$46ke_{46} = 14p \quad \ldots\ldots (5)$$

$$p = \frac{46}{14}ke_{46} \quad \ldots\ldots (6)$$

Let us now compare a funded scheme with a pay-as-you-go scheme (with $g = m$) from the point of view of the individual pensioner. Under which of the two possible arrangements will the pensioner be better off? The answer clearly depends upon whether g is greater or less than r, i.e. upon whether the rate of growth of earnings is greater or less than the rate of return on capital. This can be seen from an inspection of (1) above.

II

Let us now consider the contributors and the pensioners as groups.

Let e represent *average* earnings, and
p represent the *average* pension.

For the sake of simplcity, we shall assume that:
$g = r = m = d$

Let us also make initially the extreme simplifying assumption that there are q people in each age, i.e. q remains the same from the age of 19 to the age of 79, when everyone punctually dies on his birthday. We shall also assume that everyone in each active age group is paying the pension tax. This tax is the only source of revenue. The total number at work will then be $46q$ and the total number in retirement $14q$.

Then:

$$14qp = ke_1 (1 + g)^{45} . 46q$$
$$= ke_{46}\, 46q \quad \ldots\ldots (7)$$
$$p = \frac{46q\, ke_{46}}{14q} \quad \ldots\ldots (8)$$

As q is assumed to be the same for each age group, we have the same formula for the average pension as above.

Naturally the size of each group will not be the same. With a constant population and unchanging age structure, q will decline with mortality, disability and net emigration from the ages of 19 to 64 and continue to decline thereafter. This, of course, will be taken into account in the actual calculations and k or p will be different from the values required above. It is, however, stability in the relative size of the age groups that is necessary for financial stability, as Castellino has shown.

If, however, the age structure of the population is changing, then the pension scheme will acquire a surplus or run into deficit, if there is no alteration in k or p. We must also abandon the assumption that everyone

in each working age group contributes. The revenue may then be affected by changes in activity rates or in unemployment.

The comparison between a pay-as-you-go and a fully funded scheme will clearly depend partly upon the rate of growth of average earnings relatively to the rate of return on accumulated funds and partly upon any change that is taking place in the ratio of retired people to those at work.