Some Aspects of the Development of Keynes' Thought

by RICHARD KAHN.

University of Cambridge,

England.

This article incorporates - either literally or by way of substance - considerable portions of a lecture delivered on November 6, 1974 to the British Academy on 'Re-reading Keynes' [1, 1974]. I am indebted to the British Academy for permission to make use of this material. I owe much to Professor Donald Moggridge of the University of Toronto.

My references to Keynes' writings are to the Royal Economic Society edition of The Collected Writings of John Maynard Keynes, edited by Professor Sir Austin Robinson and Professor Donald Moggridge. I refer to them by the initials J.M.K. Volumes XIII and XIV in the series, entitled The General Theory and After, comprise, with considerable editorial comment hitherto unpublished, memoranda and letters, and some of Keynes' articles.

Monetary economics is in a state of shameful confusion. One example is the common failure to distinguish between "crowding out" in a physical sense and in a financial sense. At a time when labour bottlenecks and scarcity of productive equipment are wide-spread, the doctrine is a matter of common sense. In the financial sense it takes us back to the notorious 'Treasury view' of 1929 — that if more saving is devoted to one purpose, less is available for other purposes, so that it is impossible to reduce unemployment by trying to increase investments. What is completely overlooked is Keynes' discovery that — when, as at the present time, there is plenty of surplus labour and equipment — an increase of investment results in an equal increase in saving.

Then there is the severe controversy between monetarists and Keynesians. Then there is the controversy whether a reduction in real wages is required to reduce unemployment.

The word 'Keynes' has become a term of abuse. It seems worth while to go back and enquire what Keynes actually thought and wrote, at the expense of adding yet one more (necessarily brief) to the many ~~published~~ surveys, of which Professor Don Patinkin's is a good example. [5,4, 1976].

Keynes was born on June 5, 1883. He published The Tract on Monetary Reform [9, 1923] in 1923 at the age of 40; the Treatise on Money in 1930 at the age of 47 [10, 1930]; and the General Theory of Employment, Interest and Money [11, 1936] at the age of 50. It had been a long and painful process of escape from traditional economics.

In his popular writings Keynes was well ahead of his serious books. Can Lloyd George Do It? [12, 1929], by Keynes and Hubert Henderson, published in 1929, is based, in essence, on Keynes' ideas about the main cause of unemployment and the character of the remedy. But it lacked a complete theoretical foundation. For example, one of the resources which can enable new investment to provide a net addition to the amount of employment "comes from the savings which now run to waste through lack of adequate credit'. Some years were to elapse before Keynes realized that in this sense savings do not 'run to waste' but are not made.

The gradual change in Keynes' attitude towards the Quantity Theory of Money illustrates the development of his thought. Irving Fisher is regarded as the great codifier of the Theory, in his Purchasing Power of Money. [3, 1913]. He did not however, do more than express the truism in its well-known algebraic form. The character of any causation is not apparent. Keynes, in his Tract, states that 'his exposition follows the general lines of Professor Pigou and Dr. Marshall rather than the perhaps more familiar analysis of Professor Irving Fisher' [13, 1923]. There is more in this than the formal difference between expressing the theory in terms of the velocity of circulation of money and the value of the transactions which take place in the course, say, of a year, and in terms of the stock of money and the stock of money expressed in real value.

Marshall had pointed out that

> 'changes in the rapidity of circulation of money are themselves incidental to changes in the amount of ready purchasing power which the people of a country find it advantageous to keep in their own holding. This amount is governed by causes the chief of which can be seen with but little trouble'.

But

> 'This "Quantity doctrine" is helpful as far as it goes: but it does not indicate what are the "other things" which must be assumed to be equal in order to justify the proposition: and it does not explain the causes which govern "rapidity of circulation".'.

It is almost a truism [49, 1923].

Pigou codified Marshall in the form of his 'Cambridge equation', which expresses the relation between the stock of money and the stock of money expressed in real terms. He emphasized at the outset that there was no 'fundamental disagreement [between him and Irving Fisher] about the real causes at work. Later in the article, however, he wrote of his presentation:

> 'It focusses attention on the proportion of their resources that people choose to keep in the form of titles to legal tender instead of focussing it on "velocity of circulation". This fact, gives it, as I think a real advantage, because it brings us at once into relation with volition - an ultimate cause of demand - instead of with something that seems at first sight accidental and arbitrary'. [55, 1917].

According to this view, the causative process takes the form of decisions as to the amount of wealth which individuals, as a whole, wish to hold in the form of money. Given the quantity of money, the price-level has to accommodate these decisions.

In the Tract Keynes is at one point as orthodox on the subject of the Quantity Theory as an earlier economist, and more orthodox than many. He had been encouraged to become an economist by Alfred Marshall, whom he knew well, as a result of Marshall's friendship with his father, the Cambridge logician and economist who wrote the Scope and Method of Political Economy. But Keynes was far more strictly monetarist than Marshall and Piqou.

> The Quantity Theory he said was 'fundamental. Its correspondence with fact is not open to question.' He wuoted saying of Goschen's, of sixty years earlier - it could with much more justification be repeated today - that 'there are many persons who cannot bear the relation of the level of prices to the volume of currency affirmed without a feeling akin to irritation'. Keynes in 1923 shared Goschen's contempt for such Philistines.
>
> And yet a few pages further on Keynes denied the validity of the Quantity Theory, in the form in which it is normally presented, except 'in the long run, in which we are all dead'. A change in the quantity of money, in a period shorter than that long run, is itself the cause of a change in the ratio of the quantity of money to the price-level. [14, 1923].
>
> Six months after the Tract was published Keynes started work in July 1924 on a new book, which six years later was to be published in two volumes under the title of A Treatise on Money. [15, 1930]. The Quantity Theory of Money continued for a time to dominate his thinking, although the part played

by investment in working capital began to assume an important role.

It was at this stage that Dennis Robertson was working on his *Banking Policy and the Price Level* [58, 1926]. Already in November 1915, in his Preface to his book on *Industrial Fluctuation*, Robertson worte that the war had 'compelled clear thinking on the real nature of saving and investment in the most unlikely quarters'. [59, 1915].

In a letter addressed to Robertson after the publication of his *General Theory*, Keynes wrote: 'I certainly date all my emancipation from the discussions between us which preceded your *Banking Policy and the Price Level*.' [16, 1936]. As Professor Sir Austin Robinson put it in his obituary of Keynes, *Banking Policy and the Price Level* was the first book 'to bring home to us in Cambridge...the essential distinction between the act of saving and the act of investment' [10, 1947]. In his introduction Robertson wrote of his discussions with Keynes: 'Neither of us now know how much of the ideas contained [in Chapters V and VI] is his and how much is mine'. Keynes, in his Preface to his Treatise, refers to the 'penetrating light cast by Mr. D. H. Robertson on certain fundamental matters'.

In 1926 Keynes was hoping that his new book would be published in 1927. It was not published until 1930.

Keynes's long struggle over a period of six years to produce a version of the *Treatise* worthy of publication was directed partly to an escape from the stranglehold of the Quantity Theory of Money in its crude form. In the end Keynes was able to write that 'the forms of of the Quantity Theory...on which we have all been brought up...are but ill adapted' for the purpose of exhibiting 'the causal process by which the price-level is determined...They do not, any of them, have the advantage of separating out those factors through which... the causal process actually operates during a period of change'. [17, 1930].

Five pages further on Keynes wrote that the conclusions which he drew from his Fundamental Equations

> are, of course, obvious and may serve to remind us that all these equations are purely formal; they are more identities; truisms which tell us nothing in themselves. In this respect they resemble *all other versious of the Quantity Theory of Money*. Their only point is to analyse and arrange our material in what will turn out to be a useful way for tracing cause and effect, when we have vitalised them by the introduction of extraneous facts from the actual world.

Keynes seems to have been so much under the spell of the Quantity Theory that he could write about his Fundamental Equations as though they were 'versions' of the Quantity Theory, although, up to this point in his book, the quantity of money does not figure in them in any sense.

Seven pages further on Keynes attempted a reconciliation with the Quantity Theory. It was not successful. But in it can be seen the seed of what in the *General Theory* was to flourish under the name of the Liquidity Preference Theory. This Theory explained how the quantity of money exercises a causative influence by helping to determine the rate of interest -- or more generally, as we would put it now, the state of credit and the price-levels of securities, both fixed-interest and equities.

And yet, another three pages on, Keynes insisted on a symbolic presentation which must to most readers of the time have appeared to have been a reaffirmation of the Quantity Theory in its simple form.

Later on in the book, Keynes was more explicit. He wrote that under equilibrium conditions 'the quantity of money available for the Industrial Circulation *does* (if habits and methods are unchanged) rule the situation. Equilibrium conditions prevail '*when the price-level is in equilibrium with the cost of production*'. [17, 1930]. In the section of the book from which I am now quoting, the *modus operandi* of price determination ceases to be the conventional determination by the quantity of money only when equilibrium is disturbed as a result of the rate of physical investment failing to match thriftiness. And yet much earlier in the book the Fundamental Equations indicated that the price-level under conditions of equilibrium is determined by money costs of production per unit of output. [19, 1930]. There is a serious internal inconsistency in the *Treatise*.

The baby had been born but the umbilical cord had not yet been cut.

Keynes's insight grew immediately after he had completed the *Treatise* in September 1930. A year later, in the course of a special Preface to the German edition, he criticized the well-known concept of forced saying. It was often supposed to be the result of, and equal to, an expansion of bank credit. This 'forced' saving was regarded as supplementing 'voluntary' saving -- the value of an economy's physical investment being equal to the sum of the two. This doctrine, together with the concept itself of 'forced' saving, Keynes completely rejected. [20, 1931]. Investment creates the necessary 'voluntary' saving quite irrespective of the extent to which it is financed by the banks.

Later in 1931 and early in 1932, Keynes was making rapid progress towards a completely new formulation. The *General Theory* was finished at the end of 1935 and published early in 1936, five years after the *Treatise*. [21, 1936].

Towards the end of his *General Theory*, Keynes did provide a symbolic expression, involving four elasticities of response, which he wrote 'can be regarded as a generalised statement of the Quantity Theory of Money'. He added: "I do not myself attach much value to manipulations of this kind...I doubt if they carry us any further than ordinary discourse can.' [21, 1936]. He referred to a warning which he had given a few pages back.

> It is a great fault of symbolic pseudo-mathematical methods of formalising a system of economic analysis... that they expressly assume strict independence between the factors involved...; whereas, in ordinary discourse, ...we can keep 'at the back of our heads' the necessary reserves and qualifications...Too large a proportion of recent 'mathematical' economics are merely concoctions, as imprecise as the initial assumptions they rest on, which allow the author to lose sight of the complexities

and interdependencies of the real world in a maze of pretentious and unhelpful symbols.

The equation which represents the so-called Quantity Theory is, of course, correct. But it is not an equation. It is an identity, like so many so-called equations in economics. An identity may be a useful means of avoiding error, but it cannot, taken by itself, prove anything about causation.

A large volume of literature now exists comparing the Treatise with the General Theory, commenting on the transition. To discuss the subject -- still more the commentators -- would require several articles. I confine myself to some personal comments.

Looking back I find astonishing the confusion of thought of those of us, who, directly or indirectly, were in close touch with Keynes in Cambridge. Donald Moggridge describes it in Volumes XIII and XIV of the Royal Economic Society edition of The Collected Writings of John Maynard Keynes. [23, 1973].

In the Treatise Keynes concentrated on the determination of the prices of consumption-goods and capital-goods rather than on their outputs. This seemed to us to be made by an entirely different Keynes from the co-author of Can Lloyd George Do It?, published in 1929, a year earlier than the Treatise. [24, 1929]. Actually, Keynes devoted a considerable part of the practical second volume of the Treatise to fluctuations and unemployment.

When I re-read my own letters to Keynes [25, 1931], I found them so confused that I had difficulty in believing that they were written by the author of my article, written nine months earlier [8, 1931].

In our discussions of the price-level of capital-goods we seem to have failed to appreciate how Keynes brought in expectations. In developing his Fundamental Equation, Keynes took the price-level of new investment goods as simply given, reserving its examination to a later part of the Chapter.

When he got on to the subject, he began with the prices of securities. He explained their determination by expectations of the returns likely to be received on securities in the future and by the quantity of savings deposits (and the rate of interest paid on them). He wrote in terms of 'bullishness' and 'bearishness' of the public, and of 'two opinions.' The actual price-level of investments he regarded as the resultant of the sentiment of the public and the behaviour of the banking system. But he then allowed himself to become completely confused by the two quite different meanings of the word 'investment'-- in securities and in new capital-goods.

(This is one of the rare occasions on which the French vocabulary is richer than the English. Joan Robinson, taking a hint from John Hicks, has established the word placement for investment in securities.)

Keynes wrote:

> 'The price-level of investments as a whole, and hence of new investments, is that price-level at which the desire of the public to hold savings deposits is equal to the amount of savings deposits which the banking system is

able and willing to create.' [26, 1930].

He got himself involved in confusion between securities and capital-goods. The prices of capital-goods, of course, depend on expectations about their future earnings, not on the future earnings of the equities which they underlie. There is some relation between the two. There is also, quite obviously, a relation between the prices of equities and the prices of the capital-goods which underlie them. But the latter are subject to fluctuations larger, and different in character, from the former. [27, 1930]

Here are to be found the germs of the Liquidity Preference Theory of the General Theory, despite its faults. The Liquidity Preference Theory of the General Theory also involves a serious fault. The expectations relate to fixed-interest securities — to 'the complex of rates of interest for varying maturities which will rule at future dates.' In Chapter 13 there is no place for equities as part of a man's wealth. Keynes' failure to present his theory of determination of the rate of interest in terms of 'portfolio analysis' can be explained by his ardent desire to make his presentation as simple as possible, in the hope of carrying convictions to those unwilling to be convinced. But he should have explained — both in this and in other contexts — the character of his simplifying assumptions.

The following passage is significant:

'Whilst liquidity — preference due to the speculative — motive corresponds to what is my Treatise on Money I called the "state of bearishness," it is by no means the same thing. For "bearishness" is there defined as the functional relationship, not between the rate of interest (or prices of debts)

> and the quantity of money, but between the price of assets and debts, taken together, and the quantity of money. This treatment, however, involves a confusion between results due to a change in the rate of interest and those due to a change in the marginal efficiency of capital, which I hope I have here avoided.' [28, 1936]

Keynes' Chapter on the Marginal Efficiency of Capital is based on the prospective future yield of a capital asset, which, together with the rate of interest, determines the price of the asset.

¶ Keynes was not a man who easily got worried or lacked confidence in himself. But without allowing his spirits, which were normally buoyant, to be affected, he was at no stage satisfied with his accomplishment. On the evening on which he finished the Treatise, he wrote to his mother. 'Artistically it is a failure--I have changed my mind too often for it to be a proper unity.' [29, 1930).

¶ Five months before he completely finished the General Theory, Keynes wrote to me: 'I am in the stage of not liking my book very much.' [30, 1935]. Joan Robinson recalls that in reply to a note from her: 'I hope you are not suffering from author's melancholy,' Keynes replied: 'Author's melancholy did set in at the end. I feel I have not been worthy of my great task.'

¶ Eight months after he had finished the General Theory, Keynes wrote to Sir Ralph Hawtrey:

> I may mention that I am thinking of producing in the

> course of the next year or so what might be called footnotes to my previous book...Of course, in fact, the whole book needs re-writing and re-casting. [31, 193~~0~~6].

It would have given Keynes intense pleasure had he lived to hear Pigou, in November 1949, partially renounce his review of the General Theory [56, 1936]. It was a moving occasion. It took the form of two lectures delivered in November 1949 to a large audience of Cambridge dons and undergraduates. Referring to 'the kernel of Keynes' contribution,' as set out on page 246 of the General Theory, Pigou said:

> 'Whatever imperfection there may be in his working out the fundamental conception embodied there, the conception itself is an extremely fruitful germinal idea. In my original review article on the General Theory I failed to grasp its significance and did not assign to Keynes the credit due for it. Nobody before him, so far as I know, had brought all the relevant factors, real and monetary at once, together in a single scheme, through which their interplay could be coherently investigated?' [57, 1950].

I turn now to Keynes's treatment of the behaviour of money wages. It will serve to illustrate the attitude towards the Quantity Theory of Money of the Keynes of the General Theory if I begin by outl~~n~~ining the attitude of many Keynesians to the extremely serious problem presented today by inflation. According to the monetarist school of thought, the remedy is to prevent the supply of money from increasing faster than the rate of increase of the national product added to such modest rate of rise of the price-level as appears acceptable. We are assured that, after a period of some years, the economy will settle down in a happy state of tranquil growth, with the price-level rising at a modest rate.

Part of the Keynesian comment about such a policy is that a decline in the ratio of the supply of money to the value of output would mean rising rates of interest, and a progressive failure of the supply of credit to meet the needs of industry, falling prices on the Stock Exchange, and bankruptcies at an increasing rate. Unemployment would grow progressively, and would reach a level which was politically unacceptable, before it had an appreciable influence, if any at all, on the outcome of wage bargaining.

Already in his Treatise on Money, Keynes had drawn the fundamental distinction between cost inflation and the kind of inflation which shows itself in profits being abnormally high. The distinction is brought out sharply in his Fundamental Equations. [31, 1930]. Underlying a rising price-level are two elements. The first is a rising rate of efficiency-earnings - the rate of money earnings per unit ofoutput. This Keynes called income inflation. The second element Keynes called profit inflation. It is the result of the level of demand being such as to push prices above earnings per unit of output, resulting in profits being abnormal.

In so far as the abnormal profits are earned in the production of consumption-goods, they are earned at the expense of real wages. Incidentally, here we can trace the seed of what was, over twenty years later, to become the post-Keynesian theory of the distribution of income. In so far as the abnormal profits are earned in the production of capital goods, real wages are not directly affected. But such profits encourage an increase in the rate of investment--the output of capital goods - and this results in abnormal profits being earned in the production of consumption-goods as well.

As I have already indicated, Keynes had not, when he completed the Treatise, broken entirely loose from the trammels of the Quantity Theory of Money. But here we have a theory of determination of the price-level in which the Quantity Theory plays no explicit part. Implicitly it appears through monetary influences on the output of capital-goods. In this particularl part of the Treatise, monetary influences appear in the form of the market rate of interest. Following Wicksell, the great Swedish economist, [66, 1898], Keynes described as the natural rate of interest that rate of interest which would result in such an output of capital goods - such a rate of investment - as would entail no profit inflation. But inflation could still take the form of income inflation, as a result of money wages rising faster than productivity.

By introducing income inflation as a possibility consistent with the absence of profit inflation, Keynes improved on Wicksell. Keynes has been accused of either failing adequately to acknowledge his debt to Swedish economists or of failing to profit from their pioneer work. Professor Gunnar Myrdal, in his rightly famous book on Monetary Equilibrium, published in German in 1933, wrote:

The English school of theorists has only slowly arrived at Wicksell's statement of the problem...J. M. Keynes' new brilliant, though not always clear, work, A Treatise on Money, is completely permeated by Wicksell's influence. Nevertheless Keynes' work, too, suffers somewhat from the attractive Anglo-Saxon kind of unnecessary originality, which has its roots in certain systematic gaps in the knowledge of the German language on the part of the majority of English economists. [51, 1933].

Keynes did, in fact, admit, in the Treatise - in referring to books by von Mises, Professor Hans Neisser, and Professor Hayek - that he would have made more references to them if his knowledge of German had not been so poor. 'In German I can only clearly understand what I know already!'

Wicksell was available to Keynes only in German. Keynes certainly derived the phrase 'natural rate of interest' from Wicksell. And he regarded Wicksell's book as sufficiently important for me to translate. Sir Roy Harrod's view is that 'the process of thought by which Keynes reached his conclusions was independent, and not derived from the study of Wicksell.' [4, 1951[.

The truth seems to lie closer to the implications of Professor Gunnar Myrdal's phrase 'systematic gaps in the knowledge of the German language' than to that of his phrase 'completely permeated.'

On this issue we have Keynes's own testimony, in an article published in 1937, in replying to an article by Professor Bertil Ohlin. Keynes wrote that Sir Ralph Hawtrey and Dennis Robertson had 'strayed from the fold' of classical economics sooner than he had. He regarded Sir Ralph Hawtrey 'as his gandparent and Dennis Robertson as his parent in the paths of errancy,' and he had 'been greatly influenced by them.' Keynes might have adopted 'Wicksell as his great great-grandparent, if he had known his works in more detail at an earlier stage in his own thought and also if he did not have the feeling that Wicksell was trying to be "classical"'. [32, 1937].

Professor Myrdal, in his recent book of essays, called Against the Stream, does actually praise Wicksell because he 'was always eager to root his new ideas in thoughts which, after laborious study, he had found expressed somewhere in the great literature, in part from the beginning of the nineteenth century'. [52, 1972]. This view, taken by Professor Hyrdal, confirms Keynes's complaint that Wicksell was trying to be classical.

In fact, Professor Myrdal's own book, Monetary Equilibrium, is strongly based on classical thought as the following quotation indicates: "The "natural" or, as Wicksell sometimes says the "real", rate of interest is defined as the marginal increase in "physical productivity" of the services of land and labour when they are saved.' [53, 1931].

That is by the way. I was saying that Keynes improved on Wicksell by demonstrating the compatibility of income inflation, due to money wages rising faster than productivity, with the market rate of interest being equal to the natural rate; and so he demonstrated the compatibility of income inflation with profit inflation: whereas Wicksell defined the natural rate as the rate of interest which would result in stability of the price-level.

The fact that later on, in his General Theory, Keynes abandoned the use of Wicksell's term 'natural rate of interest' is irrelevant to the issue of the degree of Wicksell's influence on Keynes. [33, 1936]

It is unfortunate that Keynes failed in his General Theory to refer to Professor Myrdal's book. But although it was published in German in 1933, the English translation was not published until 1939.

Keynes's concept of income inflation, published 44 years ago, fits in with much modern thinking about the causes of inflation. Although Keynes abandoned the actual phrase in his General Theory, he strengthened the logical basis of the concept. One of the important contributions of the General Theory is what Sir John Hicks, in his recent book on The Crisis in Keynesian Economics, calls the wage-theorem. [5, 1974]. Keynes had already in his Treatise enunciated the doctrine, which emerged logically from his discovery of income inflation [34, 1930]. The money-wage is the falcrum on which rests the whole structure of everything expressed in terms of money - all prices, incomes of every kind, and all money-values. A higher level of money-wages means that everything expressed in terms of money is higher in the same proportion. The one important exception is the quantity of money. If it is held constant, a higher money-wage means that in real value - in terms of its purchasing power over labour and goods - the quantity of money is reduced. The only important influence on the real state of the economy of a higher money-wage takes the form of the higher rates of interest, and the general tightening of credit, which result from a reduction in the real value of the quantity of money.

In addition, all incomes and debts fixed contractually in terms of money are smaller in real value as a result of the money-wage being higher. I am, of course, abstracting from effects on exports and imports.

The basis of the fundamental role of the money-wage in determining all prices, money-incomes, and money-values is that money-wages not only form part of costs of production but, because they are to a large extent spent, they form part of total purchasing power expressed in terms of money. The higher costs resulting from a higher level of money-wages are met by the resultant addition to demand in terms of money; while in real terms demand is unaltered.

Keyne's analysis of the behaviour of money-wages is unsystematic and unsatisfactory. His failure adequately to consider how wages would, or might, behave under conditions of fairly full employment is attributable to the high level of unemployment with which he was faced and to his belief that, apart from war, unemployment would never fall to a really low level. His main concern was not with rising wages but with certain aspects of falling wages. First of all, he stressed the extreme reluctance of money-wages to fall even under the pressure of severe unemployment. Sir John Hicks points out that in 1933 in this country, 'the wage-index had fallen no more than 5 per cent below its level in the mid-twenties'. [6, 1930]. In the early 1930s the number of unemployed rose above 2 million - above a percentage of 20 - and in 1932 was about 2,800,000 - a percentage of 28. During the last stages of completion by Keynes of his General Theory, in 1934 and 1935, unemployment was falling but it remained over 1,200,000.

The difficulty of securing a fall of wages had been the basis of the argument used by Keynes in The Economic Consequences of Mr. Churchill. Even if severe unemployment in the unsheltered industries did result in some fall of wages, 'wages will not fall in the sheltered industries, merely because there is unemployment in the unsheltered industries. Therefore, you will have to see to it that there is unemployment in the unsheltered industries also.' [35, 1925].

Keynes had to contest the very widely held view that, quite apart from favourable effects of exports, if only wages fell more heavily, unemployment would be reduced. He argued emphatically that lower wages simply meant lower purchasing power, and that so far from unemployment being reduced it would be increased if a fall of wages resulted in an expectation of further falls of wages and prices.

Furthermore, a really heavy cut in wages, resulting in a heavy fall of prices, would seriously endanger the financial position of companies which were partly financed by loans and debentures. As a result, the financial position of banks would be threatened. Although their assets would rise in real value to the same extent as the deposits held with them, some of their borrowers would become bankrupt. The solidarity of the whole financial system would be threatened. [36, 1931].

Keynes was mainly concerned in the General Theory, with the failure of economists and others to appreciate the reluctance of money-wages to fall and to realize that even if they did fall, unemployment would not be diminished, except in industries subject to competition with overseas suppliers.

However, he did write something about the relationship between the behaviour of money-wages and the level of demand as reflected in the level of employment. He expressed such a relationship in what would today be regarded as the wrong form. He referred to a rise of the level of money-wages in response to a rise of demand and employment whereas today we would refer to the relationship between the rate of increase of money-wages and the level of employment. This is just one aspect of the fact that Keynes's concepts were designed for an economy in a state of depression. Similarly, he would discuss the influence of a change in the actual quantity of money as opposed to a change in its rate of growth.

Among the forces responsible for the behaviour of money-wages, Keynes mentioned 'the power of trade unions', [37, 1930], the greater readiness of entrepreneurs to give way to pressure 'when they are doing better business' and 'the psychology of the workers and the policies of employers and trade unions'. [38, 1936]. However, there is no analysis of the problem. The only reasoned statement which I have been able to find either in the Treatise or in the General Theory is the following in the General Theory:

> ...this accords with our experience of human nature. For although the struggle for money-wages is...essentially a struggle to maintain a high relative wage, this struggle is likely, as employment increases, to be intensified in each individual case because the bargaining position of the worker is improved. [39, 1936].

So we find that, as long ago as 1936, Keynes regarded what is now called the 'leap-frogging effect' - or the wage-wage spiral as opposed to the wage-price spiral - as the main cause of rising wages. This is the view which many of us have held for some years.

Keynes added that 'these motives will operate within limits', and that the level of money-wages in practice fluctuated very little. His belief was dominated not only by contemporary experience, with heavy unemployment, but also by the 'fair measure of stability of prices' between 1820 and 1914, which he attributed to 'a balance of forces in an age when individual groups of employers were strong'. [40, 1936].

As to full employment, Keynes wrote that 'when a further increase in the quantity of effective demand produces no further increase in output...we have reached a condition which might be appropriately designated as one of true inflation'. But he had written earlier, 'full, or even approximately full, employment is of rare and short-lived occurrence'. [41, 1936].

There are passages in the General Theory which seem to suggest that there is one quite definite level of demand, resulting in a level of employment which can be described as a 'state of full employment', As Sir John Hicks, in his recent book, remarks, when the Keynes theory is set out in the text-book manner...it is bound to give the impression that there are just two 'states' of the economy: a 'state of unemployment' in which money wages are constant, and a 'state of full employment' in which pressure of demand causes wages to rise. [7, 1974]

Some of the gross over-simplifications of Keynes's analysis of which the textbooks are shamefully guilty are attributable to Keynes's burning desire to be understood. To clarify his presentation, he was apt to give a misleading impression of believing in a number of simple relationships. Many of his readers have failed to realize that the simplifying assumptions made for the sake of clarity are not to be taken literally.

But actually, in the relationship between the behaviour of money-wages and the level of employment, no such excuse is admissible. Keynes stated clearly in a number of passages that, to quote one of them, 'the wage-unit may tend to rise before full employment has been reached'. On the previous page he has recognized that, in general, the demand for some services and commodities will reach a level beyond which their supply is, for the time being, perfectly inelastic, whilst in other directions there is still substantial surplus of resources without employment. [42, 1936].

It seems odd that, in the passages which I have quoted, Keynes seemed to regard the behaviour of the level of money-wages as though it was open to a choice of policy. That was not his view at all. Already in the Treatise he wrote:

> It is more important to have a system which avoids as far as possible, the necessity for induced changes [in the behaviour of money-wages] than it is to stabilise the price-level according to any precise principle, provided always that the rate of change in the price-level is kept within narrow limits. [43, 1930].

Of course, it always was Keynes's view that, to quote from The Economic Consequences of Mr. Churchill, a policy of trying to reduce wages and prices 'by intensifying unemployment without limit ...is a policy...from which any humane or judicious person must shrink'. [44, 1925].

In the middle of the Second World War, an article in the Economic Journal by Professor Hayek, on 'A Commodity Reserve Currency', gave Keynes an opportunity, at a time when in the Treasury he was deeply involved in post-war problems, to air his views in public in the today more relevant context of coping with an upward surge of money-wages as opposed to reluctance of money-wages to fall. In a Rejoinder to Professor Hayek's article, Keynes mentioned 'attempts to confine the natural tendency of wages to rise beyond the limits set by the volume of money', which rely on 'the weapon of deliberately creating unemployment. This weapon the world, after a good try, has decided to discard.'

> Keynes referred to the view that a capitalist country is doomed to failure because it will be found impossible in conditions of full employment to prevent a progressive increase of wages. According to this view severe slumps and recurrent periods of unemployment have been hitherto the only effective means of holding efficiency wages within a reasonably stable range. Whether this is so or not remains to be seen. The more conscious we are of this problem, the likelier we are to surmount it. [48, 1943].

So Keynes foresaw that there would be a problem. He did not foresee that nothing would be done about the problem until it had got out of hand. He did not foresee the order of magnitude of the problem. The terrifying size of the problem today attributable in this country partly to the failure of all Governments before July 1961 to be fully conscious of the existence of the problem, still less of its potential order of magnitude.

A note by Frank Graham, the Princeton Professor, on the Keynes versus Hayek controversy appeared in a later number of the Economic Journal. He referred to correspondence which had passed a year earlier between him and Keynes. In a letter to Graham, Keynes asked:

> How much otherwise avoidable unemployment do you propose to bring about in order to keep the Trade Unions in order? Do you think it will be politically possible when they understand what you are up to? My own preliminary view is that other, more reasonable, less punitive means must be found.

Keynes was also corresponding in 1943 on the same subject with Benjamin Graham, the famous advocate of an international composite buffer stock. Keynes explained his view that:

> If money-wages rise faster than efficiency, this aggravates the difficulty of maintaining full employment... and is one of the main obstacles which a full employment policy has to overcome.
>
> ...The more aware we were of the risk, the more likely we should be to find a way round other totalitarianism. But I recognized the reality of the risk.

Keynes failed to foresee that, twenty-nine years after the end of the war, the percentage rate of increase of money-costs of production in a number of industrial countries would have reached double figures.

Keynes was essentially a man of moderation. He would have had difficulty in accepting as a possibility the degree of stupidity in advanced countries indicated in such figures.

Keynes's unawareness of the magnitude of the problem with which industrial countries generally, and ours in particular, were to be faced is echoed in various documents written towards the end of the war. Keynes, preoccupied with various talks with the Americans, could devote little time to the drafting of the Coalition Government's White Paper on Employment Policy, [64, 1944]. But there is no evidence that he wanted more emphasis to be given to the problem of curbing the upward tendency of wages, to which one perfunctory page is devoted.

Beveridge quoted from an article published anonymously in The Times a warning by Professor Joan Robinson. 'In peacetime the vicious spiral of wages and prices might become chronic'. He took the problem somewhat more seriously than the Government and devoted to it two and a half pages, in the course of which he wrote:

> The primary responsibility of preventing a full employment policy from coming to grief in a vicious spiral of wages and prices will rest on those who conduct the bargaining on behalf of labour. The more explicitly that responsibility is stated, the greater can be the confidence that it will be accepted...Wages ought to be determined by reason, not by the methods of strike and lock-out. Ordeal by battle has for centuries been rejected as a means of settling legal disputes between citizens. [2, 1944].

Keynes had, in The Economic Consequences of the Peace, expressed his horror of inflation. There we find the famous statement that 'Lenin is said to have declared that the best way to destroy the Capitalist System was to debauch the currenty'. Keynes added that 'Lenin was certainly right'. [45, 1919]. In the first chapter of his Tract on Monetary Reform, published in 1923, he analysed the great injuries inflicted both by heavy inflation and by heavy deflation, and expressed himself on balance in favour of stability of the price-level. 'Inflation is unjust and Deflation inexpedient', he wrote. 'Of the two perhaps Deflation is, if we rule out exaggerated inflations such as that of Germany, the worse'. [46, 1923].

Keynes obviously regarded the upward and downward movements of the price-level both between 1914 and 1922 and during and after the Napoleonic wars as altogether exceptional. He believed himself to be living in a country in which, as in other advanced industrial countries, the price-level was quite remarkably stable. In the Treatise Keynes referred to 'the sensational rise of prices' in Britai between 1550 and 1650. The price-level rose by 200 per cent between 1500 and 1650. The average annual rate at which it rose was 0.75 per cent. That is the degree of inflation which Keynes regarded as abnormal. Even more exceptional was the fall of prices in 1930 to which Keynes referred as he was completing the Treatise. [47, 1930]

During the Second World War the official cost of living index rose at an average annual rate of about 6 per cent - a remarkable achievement part of the credit for which is due, not only to Keynes, but also to those civil servants, many of them economists, who gladly followed his lead. It was quite largely due to co-operation between the Government and the T.U.C.

There is nothing in the General Theory - rather the contrary - which anticipates Keynes's growing awareness that if unemployment ceased to be a serious problem, it would be replaced by the problem of pressure to raise money-wages faster than productivity. But while the General Theory was going through the press, it continued to be discussed with Keynes by his disciples, particularly by Professor Joan Robinson, who included an essay on the subject in a book published in 1937, which Keynes read in draft and approved in its final form. [63, 1947].

In a comment on the Australian Full Employment White Paper, Keynes wrote in June 1945: 'One is also, simply because one knows no solution, inclined to turn a blind eye to the wages problem in a full employment economy.' [50, 1945].

At this point I go back for a moment to Keynes's letter to Benjamin Graham of December 1943. Keynes wrote:

> The task of keeping efficiency-wages reasonably stable (I am sure they will creep up steadily in spite of our best

efforts) is a political rather than an economic problem.

In the course of his Inaugural Keynes Lecture delivered three years ago, Austin Robinson quoted the following passage from a letter written by Keynes in 1944, as editor of the Economic Journal, to an author who had submitted an over-formalistic analysis of the problem of inflation:

> I do not doubt that a serious problem will arise as to how wages are to be restrained when we have a combination of collective bargaining and full employment. But I am not sure how much light the kind of analytical method you apply can throw on this essentially political problem. [61, 1971].

It is clear to me that these references to the problem of rapidly rising wages as being political point to incomes policy. But Keynes had absolutely no idea of the terrifying orders of magnitude which recent years have displayed.

REFERENCES

1 BRITISH ACADEMY, Proceedings of the, Oxford University Press, Vol. LX, 1974, pp. 361-397.

2 BEVERIDGE, WILLIAM. Full Employment in a Free Society. London: Allen and Unwin, 1944, pp. 198-201.

3 FISHER, IRVING. The Purchasing Power of Money. New York: Macmillan, 1913.

4 HARROD, ROY. The Life of John Maynard Keynes. London: Macmillan, 1951, p.409.

5 HICKS, JOHN. The Crisis in Keynsian Economics. Oxford: Basil Blackwell, 1974, p.59.

6 ________, The Crisis, p.67.

7 ________, The Crisis, p.60.

8 KAHN, RICHARD. "The Relation of Home Investment to Unemployment," Economic Journal, June 1931; reprinted in Selected Essays on Employment and Growth, Cambridge University Press, 1972.

9 J.M.K. Vol. IV.

10 ______, Vols. V and VI.

11 ______, Vol. VII.

12 ______, Vol. IX, pp. 86-125.

13 ______, Vol. IV, p.63, footnote.

14. ______, Vol. IV, pp. 61 and 65.

15 ______, Vols. V and VI.

16 ______, Vol. XIV, p.94. See also Vol. XIII, p.1.

17 ______, Vol. V, p.120.

18 ______, Vol. VI, p.4.

19 ______, Vol. V, pp. 122-124.

20 ______, Vol. V, p.xxiv.

21 ______, Vol. VII.

22 ______, Vol. VII, p.303. and XIV. (See especially Vol. XIII, pp 337-34

23 ______, Vols ~~XIII~~ (~~pp. 337-343~~), ~~especially~~.

24 ______, Vol. IX, pp. 86-125.

25 ______, Vol. XIII, pp. 373-5.

27 ______. Vol. V, pp. 127, 130.

28 ______. Vol. VII, pp. 173-4.

29 ______, Vol. XIII, p.176.

30 ______. Vol. XIII, p.634.

31 ______. Vol. XIV, p.47.

32 ______, Vol. XIV, p.202, note 2.

33 ______. Vol. VII, pp. 242-3.

34 ______, Vol. V, p.150.

35 ______, Vol. IX, p.215.

36 ______. Vol. IX, pp. 150-/58.

37 ______, Vol. V, 152.

38 ______, Vol. VII, pp.300-1.

39 ______, Vol. VII, pp. 252-3.

40 ______. Vol. VII, 308.

41 ______. Vol. VII, p.303 and p. 250.

42 ______. Vol. VII, p.30.

43 ______, Vol. V, p.153.

44 ______, Vol. IX, p.218.

45 ______. Vol. II, pp.148-9.

46 ______. Vol. IV, pp. 16 and 36.

47 ______. Vol. VI, pp. 137 and 338.

48 KEYNES, J.M. Economic Journal, June - September/ 1943, pp. 185 and 187.

49 MARSHALL, ALFRED. Money, Credit and Commerce. London: Macmillan, 1923, pp. 43 and 48.

50 MOGGRIDGE, DONALD and HOWSON, SUSAN, 'Keynes on Monetary Policy, 1910 - 1946', Oxford Economic Papers, July 1974, p. 244, note 1.

51 MYRDAL, GUNNAR. Monetary Equilibrium. London: 1939, pp. 8-9. A shorter version of Professor Myrdal's book was originally published in Swedish in Ekonomisk Tidskrift in 1931. Three introductory chapters were added in the German version~~s~~, from the first of which the passage quoted in the text is taken. The German version was published in 1933 as part of Beiträge zur Geldtheorie, edited by Professor Hayek. An English translation of the German version was published in 1939.

52 ~~MYRDAL, GUNNAR~~. Against the Stream. New York: 1972, p.59.

53 ________. Monetary Equilibrium, p.49.

54 PATINKIN, DON. Keynes' Monetary Thought. Durham, North Carolina: Duke University Press, 1976.

55 PIGOU, A.C. The Value of Money, Q.J.E., November 1927, pp. 39 and 54.

56 ________, Economica, May 1936.

57 ________, Keynes' General Theory: A Retrospective View. London: Macmillan, 1950, p.65.

58 ROBERTSON, DENNIS. Banking Policy and the Price Level. London: P.S. King, 1926; reprinted New York: Augustus M. Kelley, 1949.

59 ________. A Study of Industrial Fluctuations. London: P.S. King, 1915; reprinted by the London School of Economics, 1948.

60 ROBINSON, AUSTIN. 'John Maynard Keynes, 1883-1946', Economic Journal, March, 1947, p.36.

61 ________ 'John Maynard Keynes', Inaugural Keynes Lecture, April 22, 1971, Proceedings of the British Academy, Vol. lvi, 1971, p.24; Economic Journal, June 1972, p.540.

62 ROBINSON, JOAN. 'Planing Full Employment', The Times, May 1944, pp. 18 and 19; reprinted in Collected Economic Papers, Vol. I., Oxford: Basil Blackwell, 1951, pp. 81-88. John Robinson's article received Keynes' approval after it had been published.

63 ________ 'Full Employment', Essays in the Theory of Employment. Oxford: Basil Blackwell, 1947, pp. 3-39; republished in Collected Economic Papers, Vol. IV, Oxford: Basil Blackwell, 1973, pp. 176-198. See pp. 174-5.

64 U.K. Government published White Paper, Employment Policy, Cmd. 6527, May 1944, pp. 18 and 19.

65 WICKSELL, KNUT. Geldzins und Güterpreise. Jena: Gustav Fischer, 1898; translated into English, Interest and Prices. London: Macmillan, 1936.