Some Aspects of the Development of Keynes' Thought
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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and XIV in the series, entitled The General Theory and After, comprise, with considerable editorial comment hitherto unpublished, memoranda and letters, and some of Keynes' articles.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 commonsense. 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 Pigou.

The Quantity Theory he said was 'fundamental. Its correspondence with fact is not open to question.' He quoted 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 wrote 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 versions 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 saving. 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, 

1936].

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 re- 
view 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 
outlining 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 of output. 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 comple-
ted the Treatise, broken entirely loose from the trammels of the Quan-
tity 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 particular part of the Treatise, monetary
influences appear in the form of the market rate of interest. Follow-
ing Wicksell, the great Swedish economist, [66, 1898], Keynes descri-
bded 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 per-
meated by Wicksell's influence. Nevertheless Keynes' work, too,
suffers somewhat from the attractive Anglo-Saxon kind of unneces-
sary 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 under-
stand what I know already!'

Wicksell was available to Keynes only in German. Keynes
certainly derived the phrase 'natural rate of interest' from Wick-
sell. 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 Profes-
sor 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 grandparent and Dennis Robert-
son 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